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The Interaction between Competition Law and Intellectual Property Law

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The Interaction between Competition Law and Intellectual Property Law

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THE INTERACTION BETWEEN COMPETITION LAW AND INTELLECTUAL PROPERTY LAW:

AN OVERVIEW

BY HANNS ULLRICH[*]

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Why the Subject?

When Claus-Dieter Ehlermann asked me in late December 2004 whether I would be willing to contribute to the 10th Annual Competition Law and Policy Workshop, I was not quite sure whether he was about to offer me a Christmas gift or another Dardanians' present.[1] After all, the relationship between the protection of intellectual property and the maintenance of free competition is the subject of an age-old debate[2] to which I had already contributed too much, with too little impact. Mainstream thinking had changed direction twice over time, and missed the middle ground again just when it was about to find it.[3] So why again set foot in these ever shifting waters, muddy as they are?

The reasons, of course,[4] are the very same that have brought the subject from the field of interest of certain specialists within the special fields of intellectual property law or of competition law to the much broader attention which it enjoys nowadays among both lawyers and economists.[5] To begin with, intellectual property protection has not only seen a growth in demand

[1] *Quidquid id est, timeo Danaos et dona ferentes* (Vergil, *Aeneis* 2, 49) (according to various sources given by Google!).

[2] In EU competition law, the first major monograph was by Alexander W. (1971): *Brevets d'invention et règles de concurrence du Traité*, CEE, Brussels; in Germany, at about the same time, there appeared a number of comparative law monographs (notably Strohm G. (1971): *Wettbewerbsbeschränkungen in Patentlizenzverträgen*, Carl Heymanns Verlag, Cologne; Prahl K. (1971): *Patentschutz und Wettbewerb*, Vandenhoeck & Ruprecht, Göttingen; Kaufer E. (1970): *Patente, Wettbewerb und technischer Fortschritt*, Athenäum Verlag, Bad Homburg, which challenged the "inherency doctrine" imported from the USA (*U.S. v. General Electric,* 272 U.S. 476 (1926)) into sect. 20, 21 Act Against Restraints of Competition of 27 July 1957 (in force: 1 January 1958) and carried on by Sect. 17/18 Act Against Restraints of Competition of 26 August 1998 (BGBl I 2546). However venerable, (Lieberknecht O. (1953): *Patente, Lizenzverträge und Verbot von Wettbewerbsbeschränkungen*, Klostermann, Frankfurt) and despite the fact that it was originally accepted in EC law (Commission Notice of December 24, 1962 on Patent Licensing Agreements, OJ EC [1962]; see also ECJ judgment of February 25, 1986, in Case 193/83 *Windsurfing International v. Commission* [1986] ECR 61, nos. 98 *et seq.*), it became unreliable on both sides of the Atlantic in light of the early works of Buxbaum R. (1965): "Restriction Inherent in the Patent Monopoly: A Comparative Critique", 113 *University of Pennsylvania Law Review* 633 (also published in German in 1966 under the title "Die dem Patentmonopol innewohnenden Beschränkungen", *Wirtschaft und Wettbewerb* 193), on the one hand, and on the other, Baxter W. (1966): "Legal Restrictions on the Exploitation of the Patent Monopoly: An Economic Analysis", 76 *Yale Law Journal* 267.

[3] Ullrich H. (1996): "Lizenzkartellrecht auf dem Weg zur Mitte", *GRUR Int* 554.

[4] Over and above the objective reasons, there is a personal motivation, which is the pleasure and the honour of being associated with the preparation and deliberation of this prestigious workshop, which so precisely monitors the various steps in the development of European competition policy.

[5] See Scotchmer S. (2004): *Innovation and Incentives*, Cambridge, Massachussets, pp. 161 *et seq.*; Lévèque F. and Ménière Y. (2004): *The Economics of Patents and Copyright*, Berkeley Electronic Press, pp. 82 *et seq.* (available at www.cerna.ensmp.fr/PrimerForFree.html).

for registered rights,[6] but also both an expansion of its scope and a transformation of its nature. While this is true for all forms of protection,[7] it is most characteristic of copyright, which has been extended to such technology-related areas as computer programmes and databases, and which, again due to information technologies, tends to mutate from control over copying of works to control over access to information.[8] Thus, from the periphery, copyright moved directly into the focus of competition law, where it probably holds an even more uneasy place than patent law has traditionally occupied. To put it in the terms of a well-known, albeit controversial dichotomy: whereas the *exercise* of patent exclusivity has always been the subject of antitrust attention, in copyright law the very *existence* of the exclusive right seems to become subject to control.[9]

[6] Over the last ten years, the number of patent applications (not the number of grants!) at the EPO has more than doubled, rising from 78,248 to 193,623. See EPO, *Annual Report 2005*, pp. 86 *et seq.*; EPO, *Annual Report 1995*, pp. 82 *et seq.* Trademark applications at the OHIM have surpassed all expectations and average at more than 58,000 per year. See OHIM, *Annual Report 2005*, pp. 42 *et seq.* For the USA, see (critically) National Research Council of the National Academies (2004): *A Patent System for the 21st Century*, Washington D.C., pp. 28 *et seq.* For an international survey, see OECD (2004): *Patents and Innovation: Trends and Policy Challenge*s, Paris, pp. 11 *et seq.*; OECD (2005): *Compendium of Patent Statistics 2005*, Paris, *passim.*

[7] For the causes and the extent of the expansion of the scope of patent protection to computer programmes and biotechnology, see Coriat B. and Orsi F. (2002): "Establishing a New Intellectual Property Rights Regime in the United States—Origins, Content, and Problems", 31 *Research Policy* 1491. In Europe, patent protection has been extended as well, namely by legislation in the field of biotechnology (European Parliament and Council Directive 98/44/EC on the legal protection of biotechnology inventions, OJ L 213 [1998]), and by administrative and court practice in the field of computer programmes (see Moufang R., in Lejeune M. and Ullrich H., eds., *Der internationale Softwarevertrag*, 2nd edition, Heidelberg, forthcoming). Trademark protection has not only been extended to all forms of signs and to services, it has been transformed into an absolute exclusivity giving, in addition, reputed marks increased protection against dilution. Likewise, design protection has been profoundly reformed. For the development, see Ullrich H. (2004): "Die gemeinschaftsrechtliche Entwicklung des Rechts des Geistigen Eigentums", in Behrens P., ed., *Stand und Perspektiven des Schutzes geistigen Eigentums in Europa*, Nomos, Baden-Baden, p. 14 *et seq.* For a general analysis, see Cornish W. (2001): "The Expansion of Intellectual Property Rights", in Schricker G., Dreier T. and Kur A., eds., *Geistiges Eigentum im Dienst der Innovation*, Nomos, Baden-Baden, p. 9 *et seq.*; Cornish W. (2004): *Intellectual Property—Omnipresent, Distracting, Irrelevant?*, Oxford University Press, Oxford, *passim.*

[8] See Dusollier S. (2005): "Technology as an Imperative for Regulating Copyright: From the Public Exploitation to the Private Use of the Work", 27 *European Intellectual Property Rewiew* 201; Dusollier S. (2003): "Exceptions and Technological Measures in the European Copyright Directive of 2001—An Empty Promise", 34 *IIC* 62. More optimistically, see Ginsburg J. (2005): *Legal Protection of Technological Measures Protecting Works of Authorship: International Obligations and the US Experience*, Columbia Public Law Research Paper NO. 05-93, available at http://lsr.nellco.org/columbia/pllt/papers/0593). Independently of issues of technological protection, access problem arise because copyrighted content existing in digitized form is not available for use other than by way of reproduction, and any access via computer implies reproduction. See Article 2 of the Directive 2001/29/EC of the European Parliament and the Council on the harmonisation of certain aspects of copyright and related rights in the Information Society, OJ L 167 [2001].

[9] For this distinction between the existence and the exercise of intelelctual property rights, as introduced by the ECJ in its judgment of July 13, 1966, in Joined Cases 56 and 58/64, *Grundig and Consten v. Commission* [1966] 321, 394, see Anderman S. (1998): *EC Competition Law and Intellectual Property Rights*, Oxford University Press, Oxford, pp. 11 *et seq.* As to the Court

In addition, competition law itself has changed. This is most obvious as regards European law. Contrary to first impressions, and beyond the regulation of the practicalities of enforcement, procedural modernization by Regulation 1/2003 has strictly limited any extravagances of national law[10] and has greatly increased the importance of block exemptions. Both of these developments have affected licensing substantially. Thus, the German immunity for licence restrictions "inherent in the exclusivity"—the last foothold of a once common doctrine—had to be abandoned.[11] More importantly, licence transactions, which typically relate to risky long-term investments, and which therefore as a general rule had be submitted to the former notification procedure, are now on the shaky terrain of self-assessment whenever their parties and their terms do not come within the limits of a block regulation.[12]

Less obvious, but more far-reaching (due partly but not only to the economic nature of licensing) is the transition from an allegedly legalistic approach to a "more" economics-based approach to defining and assessing restrictions of competition.[13] The relevant teaching of modern welfare economics is universal by nature, although it is by no means uniform, and thus the economics-based approach contributes enormously to bringing US and EU competition policy on a path of practical convergence, and possibly even of theoretical dependence.[14] In the area of interest here, the concern of modern welfare economics for welfare enhancement through efficient

putting copyright's existence into jeopardy, see the ECJ's judgment of April 6, 1995, Joined Cases C-241/91P and C-242/91P *RTE and ITV v. Commission* [1995] ECR I-743. See *infra* sub. B.2.3 c) and the contributions by Josef Drexl, Eleanor Fox, and James Venit in this volume.

[10] See Article 3 of Regulation 1/2003. Due to soft, unilateral or voluntary harmonization of national law, surprisingly little attention has been paid to this rule, as if it were unimportant in practice. But see Ritter L., Braun W. and Rawlinson F. (2004): *European Competition Law: A Practioner's Guide*, 3rd edition, Kluwer, The Hague, pp. 85 *et seq.*; Klees A. (2005): Europäisches Kartellverfahrensrecht, Carl Heymanns Verlag, Cologne, pp. 68 *et seq.*; Rehbinder E. (2004): "Zum Verhältnis zwischen nationalem und EG-Kartellrecht nach der VO Nr. 1/2003", in Fuchs A., *Wirtschafts- und Privatrecht im Spannungsfeld von Privatautonomie, Wettbewerb und Regulierung*, Munich, pp. 303.

[11] See §§ 4–18 (deleted) of the Act Against Restraints of Competition of July 15, 2005, BGBl I 2114; Bundesregierung, Entwurf eines 7. Gesetzes zur Änderung des Gesetzes gegen Wettbewerbsbeschränkungen, Bundesrat Drucksache 441/04, S. 37 *et seq.*, 43 (giving short shrift in a few lines to this German sanctuary of specific antitrust treatment of intellectual property rights).

[12] This explains the harsh criticism of the market share thresholds limiting the block exemption granted by Commission Regulation 772/2004. See *infra* B.2.2 b), c) (ii).

[13] See Commission Guidelines on the application of Article 81 EC to agreements on horizontal cooperation, OJ C 3 [2001], at nos. 6, 17 *et seq.*, Commission Guidelines on the application of Article 81(3) of the EC Treaty, OJ C 101 [2004], pp. 5, 11, 17 *et seq.*, 33, 48 *et seq.* (laying to rest the misleading language of a "more" economics-based approach, namely how much of it as opposed to what?)

[14] As to the development of EU competition policy in this respect, see the contributions in Ullrich H., ed. (2006): *The Evolution of European Competition Law*, Cheltenham, London, and in particular the chapters by Boy L., "Abuse of Market Power: Controlling Dominance or Protecting Competition", pp. 201 *et seq.*, and Geradin D., "Efficiency Claims in EC Competition Law and Sector-Specific Regulation", pp. 313 *et seq.*

arrangements or practices in competition, and in particular its focus on effects rather than on form, may result in a shift of emphasis in the analysis of intellectual property-related restrictions of competition, namely: *from delimiting the legitimate scope and exploitation* of the exclusive IP right by reference to free competition, on the one hand—*to determining the conditions for its most efficient use* as part of a cooperative or monopolistic innovation/investment strategy in markets with a sufficient degree (or at least a likelihood) of effective competition, on the other. Instead of defining the "intersection" between intellectual property law and competition law, as was once done,[15] IPR-related antitrust law would thus provide the rules for determining the optimal "interaction"[16] between the two bodies of law.

The Areas of Interaction

1. The transactional context of intellectual property-related restrictions of competition

both the expansion of intellectual property protection and the continuous unfolding of competition law necessarily meant an extension of the areas of contact and possible conflict or interaction. In a first approach to a systematic examination, these areas may be sub-divided according to the role intellectual property-related restrictions play in the context of the business transaction in question. Basically, such a sub-division would rest on the distinction between transactions whose very object is the exploitation of an intellectual property right as such and transactions where intellectual property-related covenants are only supportive of or subordinate to their distinct main purpose. As simple as this distinction is, it points to the areas where competition rules may be intellectual property-specific and those where they are not, the pro- or anticompetitive nature of the transaction also determining the assessment of the concomitant intellectual property-related elements of the transaction.

1.1. Intellectual property-specific transactions

Intellectual property-specific transactions serve the individual or collective exploitation of the exclusivity afforded by patent, copyright, trademark or other protection. The typical form of exploitation via an individual transaction is, of course, the licensing agreement. As this has been freshly regulated

[15] See, e.g., the special issue on the "Patent/Antitrust Interface", 53 *Antitrust Law Journal* 483 (1985).

[16] To avoid false attribution of authorship, the title of the workshop was chosen by C.-D. Ehlermann, and probably not with the connotation given to it in the text.

by Commission Regulation 772/2004 on the application of Article 81 EC to certain categories of technology transfer agreements[17] and the accompanying Guidelines on the application of Article 81 EC to technology transfer agreements,[18] it is of central interest here.[19] However, while the scope of application of the block exemption was extended beyond patents and patent-related rights to designs and software, as well as—indirectly[20]—to the reproduction and distribution rights of copyright, other areas, such as trademark licensing[21] and the exploitation of the performance right afforded by copyright protection[22] remained outside the reforms, the former presumably because it does not raise enough issues, and the latter because it raises too many new or specific ones.

In fact, even in the area covered, some issues have been left out on account of their unknown implications, such as research tool licensing, which is common in biotechnology,[23] and open source software licences.[24] Unlike

[17] OJ L 123 [2004] (hereinafter TT-Regulation 772/2004)

[18] OJ C 101 [2004] (hereinafter TT-Guidelines)

[19] See *infra* point 2, and the contributions by Simon Bishop, Luc Peeperkorn and Steven Anderman in this volume.

[20] According to the Commission, TT-Guidelines, at no. 51, the principles applicable to technology transfer agreements under TT-Regulation 772/2004 and the TT-Guidelines will also be applied to copyright licences insofar as they relate to the reproduction and distribution of the embodiments of copyrighted works. See *infra* point 2.3.c.).

[21] Commission, TT-Guidelines at no. 53 expressly excludes stand-alone trademark licences from further consideration. However, trademark licences that support a technology transfer, if limited or imposing branding obligations on the licensee, are considered to be simply ancillary (Commission, TT-Guidelines, no. 50 (as distinguished from Article 1(1)(7) Commission Regulation 240/96 (OJ L 31 [1996]), the predecessor block exemption to TT-Regulation 772/2004). Trademark licences granted in the context of distribution agreements are regulated by Commission Regulation 2790/1999 on the application of Article 81(3) of the Treaty to categories of vertical agreements (OJ L 336 [1999]). For an overview of the Commission's administrative practice see Commission, Staff Working Paper, *Possible Abuses of Trademark Rights Within the EU in the Context of Exhaustion*, May 21, 2003, SEC (2003) 575. The most important recent Commission decision of April 20, 2001 (Comp. D3/34493-*DSD*), OJ L 166 [2001], is under appeal. See the CFI's refusal of interim measures in its Order of November 15, 2001, Case T-151/01 R, [2001] ECR II-3295, paras. 166 *et seq.*

[22] Commission, TT-Guidelines, no. 52. Since software licences usually cover the performance right as well, the distinction made by the Guidelines is not very clear technically. What is meant, apparently, are performance agreements in the entertainment industry.

[23] Commission, TT-Guidelines, no. 45 (which is less clear as regards reach-through licensing). The issue is unsettled even as a matter of patent law (see European Commission (2004): *Patenting DNA Sequences (Polynucleotides) and Scope of Protection in the European Union: An Evaluation* (authored by S.R. Bostyn), Directorate-General Research, Directorate E, Brussels, sub. 4.8.; 4.9.; 8. See also Wolfram M. (2003*): "Reach-Through Claims" and "Reach Through Licensing"—Wie weit kann der Patentschutz auf biotechnologische Research Tools reichen?*, Carl Heymanns Verlag, Cologne, p. 57; Brandi-Dohrn M. (2005): *Reach-through Ansprüche und Reach-through Lizenzen*, VPP-Festschrift, München, p. 465; Borckhaus H. (2005): "Kartellrechtliche Grenzen der Vertragsgestaltung im Rahmen einer Zusammenarbeit von Unternehmen bei der Entwicklung von Arzneimitteln", *GRUR Int* 359).

[24] Open source software seems to raise more antitrust law issues with regard to the practices of its competitors than by itself, but there is a problem of joint development based on grantbacks of improvements, including grantbacks in situations of modular dependency. The discussion seems to be at its very beginning. See Heath C. (2004): "Kartellrecht", in Spindler G., ed.,

free-of-charge licensing strategies of individual enterprises seeking to impose their technology by inducing network effects, open source software licensing schemes might possibly have to be assessed by analogy to solidarity-based cooperative practices.[25] Indeed, such schemes transcend the individual interest in the exploitation of intellectual property in that the number of participants is unlimited and the aim is to advance the functionality of the software in the common interest.[26]

It is these latter features which distinguish open source software agreements from the more conventional forms of bilateral or multilateral licence exchanges, upon which a (normally) rather limited number of parties may agree to bring together complementary intellectual property assets—usually patents or copyrights.[27] They thus serve their parties' individual interests and, for that reason, are dealt with under present EU competition policy by analogy to licence agreements in general, albeit with some reservations and with due regard to their propensity to deteriorate into collusion.[28]

Again, additional antitrust law considerations come into play when the exploitation of intellectual property as such is made the subject of collective action. This may be regulated directly by law, and to this extent collective

Rechtsfragen bei open source, Hrsg. und Autor, Cologne, at pp. 267, 272 *et seq.*; Pasche M. and von Engelhardt S. (2004): "Volkswirtschaftliche Aspekte der Open-Source-Softwareentwicklung", 18 *Jenaer Schriften zur Wirtschaftswissenschaft*, at pp. 25 *et seq.*

[25] Confront Case C-250/92 *Gottrup-Klim/Dansk Landbrugs* [1994] I-5641.

[26] Open source software licensing differs in this respect from the "creative commons" movement. Although this movement too is based on the principle of (royalty-)free access to protected subject matter (copyrightable works), it seeks to maintain a communication process in the interest of individual creativity. For general information, see "Creative Commons", available at http://creativecommons.org. For the legal foundations, see with respect to scientific data Reichman J. and Uhlir P. (2003): "A Contractually Reconstructed Research Commons for Scientific Data in a Highly Protectionist Intellectual Property Environment", 66 *Law and Contemporary Problems* 315, at pp. 416 *et seq.* (special issue "The Public Domain", edited by J. Boyle); Dreier T. (2005): "Creative Commons, Science Commons—Ein Paradigmenwechsel im Urheberrecht?", in *Perspektiven des Geistigen Eigentums und Wettbewerbsrechts : Festschrift für Gerhard Schricker zum 70. Geburtstag*, Beck, Münich, pp. 283, 286 *et seq.*, with further references.

[27] Cross-licensing or licence exchanges are frequently dealt with together with pools (see OECD (2000): "Competition Policy and Intellectual Property Rights", in 2 *OECD Journal of Competition Law and Policy*, pp. 123, 139 *et seq.*), but they need to be clearly distinguished. Pools, which typically imply a policy and an agreement to pursue third-party licensing, are normally based on a licence exchange, but a licence exchange need not be carried through to a pooling arrangement. See Shapiro C. (2001): "Navigating the Patent Thicket: Cross Licenses, Patent Pools and Standard-Setting" in Jaffe A., Lerner J. and Stern S., *Innovation Policy and the Economy*, Cambridge University Press, Cambridge (also available at http://haas.berkeley.edu/shapiro/thicket.pdf). For a conventional distinction, see Schulte H.-J. (1971): *Lizenzaustauschverträge und Patentgemeinschaften im amerikanischen und deutschen Recht*, Athenäum Verlag, Frankfurt, pp. 95 *et seq.*

[28] Commission, TT-Guidelines no. 142 *et seq.*, 154, distinguishing such reciprocal licences according to whether they are agreed upon between competitors or not. See also Article 4(1)(b) and (c)(ii) on bilateral exchanges. According to TT-Guidelines no. 40, the rules contained in Regulation 772/2004 apply to multi-party exchanges. See also Charles River Associates (2003): *Report on Multiparty Licensing*, London/Brussels, pp. 74 *et seq.*

activities may enjoy quasi-statutory immunity against competition law, such as in the case of copyright collecting societies[29] or of the enforcement of plant breeders rights,[30] the legitimizing rationale being the insuperable transaction costs of individually controlling the multiplicity of uses and users of the protected subject matter.[31] However, beyond statutory exemptions for collective rights enforcement, which national law may provide for, there remain questions regarding (overly) restrictive relationships between the organization and its members and regarding the pro- or anticompetitive exercise of the bundle of exclusivities *vis-à-vis* third parties.[32] In the case of patent pools, it is the very establishment of the group is subject to antitrust law control, with a view to examining whether, *in casu*, the transaction costs rationale is satisfied.[33] Basically, these collective agreements and their competition law implications present old, well-known problems.[34] However, technological change, and in particular the expansion of information technology, have brought both the operation of copyright collecting societies and the formation of patent pools to fresh attention by competition authorities.[35]

1.2. Intellectual property-supported transactions

Contractual stipulations, which explicitly or implicitly attribute to intellectual property rights a supportive or complementary role with respect to the main purpose of a transaction, vary as widely as do the types of such transactions.

[29] An example may be seen in Germany under Section 1 *et seq.*, 18 Urheberrechtswahrnehmungsgesetz, which was recognized by Sect. 30, Act Against Restraints of Competition, but repealed by the 2005-Act, *supra* note no. 11, in view of Article 3 Regulation 1/2003, allegedly without affecting the antitrust status of collecting societies (see Bundesregierung, *Begründung zum Entwurf*, *supra* n. 11 at 85 *et seq.*). For the recognition of collecting societies under Article 81 EC, see Case 395/87, [1989] ECR 2521, paras. 27 *et seq.*).

[30] See Article 14(3) of Council Regulation 2100/94/EC on Community Plant Variety Protection; Commission Regulation 1768/95/EC on Article 14(3) Regulation 2100/94 (OJ L 173 [1995]); BGH of May 11, 2004, *GRUR* 2004, 763 (= *WuW* DE-R 1267).

[31] This rationale is entirely different from that underlying the establishment of associations carrying a collective trademark, e.g., under Article 64 Council Regulation 40/94/EC on the Community Mark. For an illustration, see the *DSD* case, cited at *supra* note no. 21.

[32] See *infra* sub. 3. b).

[33] See *infra* sub. 3. a).

[34] Merges R. (2001): "Institutions for Intellectual Property Transactions: The Case of Patent Pools", in Dreyfuss R., Zimmerman D. and First H., eds., *Expanding the Boundaries of Intellectual Property*, Oxford University Press, Oxford, at p. 123 provides a broad account of practice and literature. German literature has looked at both US and German developments. See Neumeyer F. (1932): *Patentgemeinschaften und deren Aufbau bei amerikanischen Industrieverbänden*, Ltwelt, Marburg; Kronstein H. (1967): *Das Recht der internationalen Kartelle*, J. Schweitzer Verlag, Berlin, pp. 186 *et seq.*; Schulte H.-J. (1971), *supra* note no. 27, at pp. 101 *et seq.*; 180 *et seq.*; Pietzcke R. (1983): *Patentschutz, Wettbewerbsbeschränkungen und Konzentration im Recht der Vereinigten Staaten von Amerika*, Carl Heymanns Verlag, Cologne, pp. 83 *et seq.*

[35] See *infra* sub. 3.

a. Franchise agreements

The format closest to intellectual property-specific transactions is the franchise agreement. Franchises essentially represent service-based distribution systems using trademark and design protection as a support and control instrument in exchange for the provision of retail know-how to the franchisees.[36] As with the more traditional selective and exclusive distribution systems for branded goods or services, they are governed by the block exemption and the Guidelines for vertical restraints, which also cover intellectual property-related provisions.[37] So far, the law seems to be settled, and it is noteworthy only in two respects.

On the one hand, it was the contractually implied use of trademarks as a means to protect the territory of an exclusive distributor from parallel trade which gave rise to the Court's strict stand against the instrumentalization of territorial exclusivity for the control of intrabrand competition by the manufacturer and/or exclusive distributor. This strict approach was mandated by the objective of the competition rules to ensure—by way of their complementarity in relation to the principles of free movement of goods and services—market integration.[38] This was what the functional distinction between the existence or the essence of intellectual property protection and the (unlawful) exercise of the exclusive right *in concreto* for purposes of market segregation, was all about.[39] That distinction was then carried on to the rule that territorial

[36] Pure production franchise agreements are excluded from the application of Commission Regulation 2790/1999 on vertical restraints (see Article 2 paras. 3, 5), but they are supposed to qualify for a block exemption under TT-Regulation 772/2004, see Commission Guidelines on Vertical Restraints (OJ C 291 [2000], sub no. 31, 43 (*e contrario*); Ritter L., Braun W. and Rawlinson F. (2004), *supra* note no. 10, at p. 303; Metzlaff K. (2000): "Franchisesysteme und EU-Kartellrecht—neueste Entwicklungen", *Betriebsberater*, at 1201, 1203 (left col.). For an early example, see Commission decision of December 23, 1977, OJ L 70 [1978], 69—*Campari*; European Commission (1989): *18th Report on Competition Policy 1988*, Brussels, at p. 69, which also shows that such production franchises serve not an enabling technology transfer but rather organizational integration. It is in this respect—and only in this respect—that they differ from technological know-how licences.

[37] See Article 2(1) and (3) of Commission Regulation 2790/1999 on Vertical Restraints; Commission Guidelines on Vertical Restraints, (also suggesting, in ambiguous terms, an analogous treatment for "franchises" that provide only for the grant of a licence, apparently meaning the licensing of trademarks for a distribution format with no product specification or provision as to supply sources, as in the case of "Computerland", see Metzlaff K. (2000), *supra* note no. 36, at p. 1203, note 35 (referring to Commission decision of July 13, 1987, OJ L 222 [1987], which, like any franchise, involved—in addition to the grant of a licence for the trademark and for distribution know-how—the supply of advice, information and training by the franchisor).

[38] See Ullrich H. (1999): "International Exhaustion of Intellectual Property Rights: Lessons from European Economic Integration", in *Mélanges en hommage à Michel Waelbroeck*, Bruylant, Brussels, pp. 205, 215 *et seq.*, 222 *et seq.*

[39] For a detailed analysis of the Court's case law under Article 28/30 EC, see Ullrich H. in Immenga U. and Mestmäcker E.-J., eds., *EG-Wettbewerbsrecht*, 2nd edition (forthcoming, Munich 2006), GRUR Part A, sub. no. 41 *et seq.*, 74 *et seq.* This case law is based, *inter alia,* on the combination of the principles that, on the one hand, the market of reference for the territorial exercise of national intellectual property is the entire Internal Market, and, on the other, that it is the functional role of parallel traders to compensate for the transaction costs which make it infeasible for the consumer to make individual, small quantity purchases all across that Internal Market.

market segregation by way of the unilateral exercise of an intellectual property right presents a concern for competition law whenever it is the object, means or result of a cartel,[40] i.e., some form of collusion rather than of independent individual decision. As such, the rule is obvious enough and still valid.[41] But this rule also implies that such use of the intellectual property right may be legitimate to the extent that it corresponds to and is limited by the lawful purpose and operation of a "cartel", i.e., a cooperation agreement.

On the other hand, it was within the framework of vertical agreements, namely selective distribution,[42] that the Court developed the concept that restrictive agreements which only produce pro-competitive effects are *per se* exempt from Art. 81 para. 1 of the Treaty. A major example of this concept are franchise agreements: as a legitimate business format, they justify some minimum restrictions on the use of the trademark, design and know-how by the franchisee.[43] Since a franchise agreement's provisions on the use of the "franchised" intellectual property are central to the achievement of the overall business objective, their *per se* legality is not simply derived from the legitimacy of the overall objective of the agreement, but contributory to it. This distinguishes them from intellectual property-related provisions that are simply ancillary to the purpose of a transaction, such as those that may be found in certain sub-contracting arrangements which integrate the production of components into the assembler's manufacturing operation.[44]

b. Joint research and development

Agreements on joint research and development again imply stipulations on the attribution and use of intellectual property rights which, although cast

[40] Beginning with the ECJ judgment in Case 56 and 58/64 *Grundig and Consten v. Commission* [1966] ECR 321. This was then made explicit in the Court's judgment in Case 40/70 *Sirena v. Novimpex* [1971] ECR 69, no. 9. See also ECJ judgments in Case 78/70 *Deutsche Grammophon v. Metro-SB-Großmärkte* [1971] ECR 487; Case 96/75 *EMI Records v. CBS-Schallplatten* [1976] ECR 811, no. 24; Case 119/75 *Terrapin v. Terranova* [1976] ECR 1039, no. 6; Case 258/78 *Nungesser v. Commission* [1982] ECR 2015, at nos. 28, 47, 60 *et seq.*; Case 9/93 *IHT Internationale Heiztechnik v. Ideal Standard* [1994] I-2789, no. 59.

[41] As to the *per se* illegality of contractual restrictions on opportunities for parallel imports, see Case C-279/87 *Tipp-Ex v. Commission* [1990] ECR I-261, no. 22; Case C-306/96 *Javico International v. Yves Saint Laurent* [1998] ECR I-1983, no. 14 (and also nos. 22 *et seq.*).

[42] Case 26/76 *Metro-SB-Großmärkte v. Commission* [1977] ECR 1875, nos. 20 *et seq.*

[43] Case 161/84 *Pronuptia v. Schillgalis* [1986] ECR 374, nos. 15 *et seq.*

[44] See Commission Notice of December 18, 1978 on the evaluation of sub-contracting agreements under Article 85(1) of the Treaty, OJ C 1 [1979]. The scope of this Notice has been unnecessarily narrowed down to vertical relationships by Commission Guidelines on horizontal cooperation, nos. 80, 81. Moreover, it has been blurred by Commission TT-Guidelines, no. 44, according to which TT-Regulation 772/2004 applies to such agreements if it is not the equipment but the technology supplied by the principal which constitutes the essence of the contract. However, the essence of sub-contracting is neither the supply of equipment nor the licensing of technology by the principal but the supply of goods by the sub-contractor according to the specifications and instructions of the principal, and this is what might justify certain 'ancillary restraints' accompanying one or the other of the items mentioned. In addition, neither the Notice nor the Guidelines take sufficient account of the position of the sub-contractor, nor is it clear why TT-Regulation 772/2004 should apply even if there is, in reality, no technology transfer but only some time-limited technology-lending. See also *infra* note no. 122.

into the overall framework of the cooperation, are not simply subordinate to it but are supportive of both the joint effort and of the preservation of the partners' individual market positions. This is so because it is by virtue of the exclusive rights that both the partners' contributions to and the results of the R&D cooperation (the so-called 'background' and the 'foreground' knowledge) may be identified, delimited, and redistributed for joint or individual exploitation in accordance with the partners' respective market interests.[45] Accordingly, it is the need for cooperation and its expected pro- and anti-competitive effects which also determine the criteria for assessing the lawfulness of the intellectual property-related provisions of R&D cooperation.[46] Commission Regulation 2659/2000 on the application of Article 81(3) EC to categories of research and development agreements[47] and the Commission's Guidelines on horizontal cooperation[48] specify these criteria to some extent, but they hardly take sufficient account of the full effect joint research and development may have on competition, or of its reinforcement by intellectual property protection and the strategic definition of its exploitation by seemingly auxiliary contractual provisions.[49]

1.3. Intellectual property-resistant transactions

A contrasting picture is presented by the relationship between industrial standardization and intellectual property. While the owner of exclusive rights whose claims cover technical standards might wish to benefit fully from the enhanced value which the standard confers on his property by resorting to restrictive practices, it is the very purpose of technical standards to be

[45] See Ullrich H. (1993): „Auslegung und Ergänzung der Schutzrechtsregeln gemeinsamer Forschung und Entwicklung", *GRUR* 1993, p. 338. With respect to subsidized joint R&D, see Godt C. (2006): "Forschungs-, Wissenschafts- und Technologiepolitik", in Dauses M., ed., *Handbuch des EU-Wirtschaftsrechts*, Munich, Looseleaf, p. 31 *et seq.*; Ullrich H. (1994): "Rules on Ownership and Allocation of Intellectual Property in R and D Collaboration Between Science and Industry", in Max-Planck-Gesellschaft, ed., *European Research Structures—Changes and Challenges: The Role and Function of Intellectual Property Rights*, p. 138.

[46] See Fuchs A. (1989): *Kartellrechtliche Grenzen der Forschungskooperation*, Nomos, Baden-Baden, pp. 384 *et seq.*; Monopolkommission (1999): *Hauptgutachten 1988/89*, p. 973.

[47] OJ L 304 [2000].

[48] OJ C 3 [2001], at p. 39 *et seq.* In accordance with the new approach to the application of Article 81 EC and to block exemptions (see *infra* sub. 2.2. b)), these rules are less specific than they were under the predecessor regulation, namely Commission Regulation 418/85 (OJ L 53 [1985]).

[49] Thus, cooperation and patent protection may both serve to internalize R&D externalities, so that they are alternative incentives which, if combined, have mutually reinforcing effects, a matter which is relevant with respect to the indispensability requirement of Article 81(3) EC but generally overlooked. Likewise, the combination of cooperation, protection and subsidization raises questions under Article 81(3) EC. See Monopolkommission (1989): *Hauptgutachten 1988/89*, at pp. 970, 1082; Ullrich H. (1988): *Kooperative Forschung und Kartellrecht*, Verlag Recht und Wirtschaft, Heidelberg, pp. 165 *et seq.* Finally, unless the joint technology is pooled for licensing (which has its own problems—see *infra* 3.1), third-party licensing by the partners individually is *de facto* restricted once the intellectual property rights are 'redistributed', each partner owning only part of a usually broader technology.

generally and equally accessible. Therefore, to the extent that standardization is held to be economically desirable, it tends to transform the individual property right into a mere title to compensation, or else standardization risks failure.[50] Indeed, it is not so much the fact that an intellectual property owner will financially benefit from standardization, or the risk that he may obtain some market or leverage power, which makes it necessary for standardization organizations and their members to respect obligations of information in order to avoid or at least minimize such conflicts between the open access rule and individual exclusivity. The holder of intellectual property rights may, indeed, be entitled to reap an innovation reward precisely (and only!?) from standardization, while any undue exercise of his intellectual property-supported market power could be controlled on the basis of Article 82 EC.[51] Rather, it is the standardization's potential to increase efficiency of production and rapidity of innovation which may be impaired by the exclusivity, by restrictive licensing, and even by 'excessive' royalty terms. Consequently, under the competition rules, the Commission makes the recognition of the standardization rules of organizations such as the European Telecommunications Standards Institute (ETSI) dependent on whether the parties to the standardization are subject to two requirements: first, there must be a duty of early disclosure of at least those intellectual property rights whose subject matter is essential for compliance with the standard, and which therefore cannot be circumvented by third parties;[52] second, given the need to use these rights, the owner of the exclusive right must in such cases be willing to grant licences on reasonable and non-

[50] See generally Verbruggen J. and Lorincz A. (2002): "Patents and Technical Standards", 33 *IIC* 125; Kübel C. (2004): *Zwangslizenzen im Immaterialgüter- und Wettbewerbsrecht*, Carl Heymanns Verlag, Cologne, pp. 41 *et seq.*, 262 *et seq.*

[51] See Heinemann A. (2002): *Immaterialgüterschutz in der Wettbewerbsordnung*, Mohr Siebeck, Tübingen, pp. 104 *et seq.*, 519 *et seq.,* with references. A well-known example is the FTC's *Rambus* case concerning a so-called "ambush" practice, meaning that a patentee who is involved in the standardization process refrains from disclosing his patent until the standard has been accepted so as afterwards to extract real monopoly profits (see Naughton M. and Wolfram R. (2004): "The Antitrust Risks of Unilateral Conduct in Standard Setting, in the Light of the FTC's Case Against Rambus Inc.", 49 *Antitrust Bulletin* 699). See also Lea G. and Hall P. (2004): "Standards and Intellectual Property Rights: An Economic and Legal Perspective", 16 *Infoecopol* 67, sub. 43 *et seq.*

[52] See ETSI (2005): *The ETSI-Guide on IPRs*, sub. 4.5 (available at www.etsi.org/legal/ETSI_Guide_on_IPRs_a.htm); ETSI (2005): *ETSI Intellectual Property Rights Policy*, sub. 4.9 (available at www.etsi.org/legal/ipr_a.htm); Ohana G., Hansen M. and Sha O. (2003): "Disclosure and Negotiation of Licensing Terms Prior to Adoption of Industry Standards: Preventing Another Patent Ambush?", 24 *European Competition Law Review* 644. However, problems are not quite that easy to solve, first, because reasonable licensing conditions and royalties are hard to determine under *de jure* or *de facto* conditions of compulsory licensing, and, second, because prior disclosure does not work in the context of software standards where copyright protection accrues as the standard (in fact: any standard) is written down. Finally, the idea of an 'innovation reward' is not generally pertinent, but depends on the time the standard is set within the innovation cycle, and on the quality of the technological achievement (of which copyright is no indicator at all).

discriminatory conditions, including royalties.[53] These minimum requirements for a fair standardization process do not of course exclude additional control over the actual licensing policy of the owner of intellectual property,[54] or if the standardized technology has been pooled, of the organization and the licensing practice of the pool.[55] Surprisingly enough, however, at this level the Commission tends to ignore the link between the exclusivity and standardization, and the latter's overriding principles.[56]

2. Technology transfer: how far does the rationale carry?

2.1. Power or property?

Traditionally, intellectual property-specific transactions, in particular patent licensing agreements, have presented paradigmatic cases for the discussion of the interface between intellectual property law and competition law, at least as far as the application of Article 81 EC is concerned.[57] This is so because licensing-out patents or related rights is (or at least used to be) the main way to exploit a new technology which the inventor could or would not himself transform into an innovation, and because licensing-in constitutes the typical means of introducing an innovation whose technology the licensee is not able or willing to independently develop himself in alternative form. Inherently, this situation seems to be characterized by an asymmetric distribution of power between the parties, and by a potential for the patentee to extend his control to markets which he would not or does not want to reach himself. This, more than the concomitant risk of concertation between licensor and licensee on how to delimit their respective market interests, gave rise to competition law concerns. These concerns were overcome in favour of the patentee by the famous 'inherency' and 'reasonable reward' doctrines.[58] The Community very early on moved away from this pretentious primacy of IP protection over competition, in part because the diversity of national intellectual property laws seemed to stand in the way of such a legalistic

[53] See *supra* note no. 52.

[54] See, e.g., BGH of July 13, 2004, WuW DE-R1329 (English translation in 36 *IIC* 741 (2005)—*Standard-Spundfass* (Standard Tight-Head Drum).

[55] See *infra* sub. 3.1.

[56] According to the Commission, TT-Guidelines at no. 212, third-party licensing by the patent pool falls under TT-Regulation 772/2004 (unlikely in view of Article 3 due to market shares) and its (or the Guidelines') general criteria for bilateral licensing, as if the pooled standard technology would not, by its nature, require non-restrictive access conditions.

[57] It is only recently that the intellectual property/antitrust law interface became a serious matter as regards Article 82 EC as well, namely to the extent that refusals to license or to grant access to information came to be considered as an abusive exclusionary practice. See *infra* 3.3.

[58] See *supra* note no. 1. For details, see Heinemann A. (2002), *supra* note no. 51, pp. 41 *et seq.*; Ullrich H. (1996), *supra* note no. 3, pp. 556 *et seq.*; Ullrich H. (1997), in Immenga U. and Mestmäcker E.-J. (1997)*: EG-Wettbewerbsrecht*, 1st edition, Munich, pp. 1221 *et seq.*; Anderman S., *supra* note no. 9, at pp. 52 *et seq.*

approach anyway,[59] in part because it was at odds with the Commission's concern for market integration, i.e., its fear of market divisions between licensor and licensee,[60] and in part also because the doctrines had already been discredited by pervasive doctrinal criticism.[61] Instead, over the years, and as a result of multiple causes, such as procedural and practical constraints of enforcement, limited legislative authority, the dissatisfaction of the industry circles most concerned (or most outspoken), and the increasing focus of industrial policy on technological competitiveness, the idea of licensing as a primary mode of intra-Community technology transfer came to supersede the originally rigid approach with respect (at least) to granting group exemptions. In fact, that idea came to serve as the overriding consideration determining the reach of control by competition policy.[62] The liberalization of the block exemption regime, first by Commission Regulation 240/96, and then again by Commission Regulation 772/2004, testifies to this effect.

The technology transfer rationale corresponded to a concentration of law enforcement on technology-related industrial property contracts, both as regards issuing individual decisions and granting block exemptions.[63]

[59] See Heinemann A. (2002), *supra* note no. 51, at p. 292, with references. However, that argument was superficial, since the scope of the patent doctrine, as enlarged by the reasonable reward doctrine, did not necessarily depend on a legalistic application, and since the jurisprudential development of the existence/exercise dichotomy and (later on) of the specific subject matter/exercise doctrine (see EJC judgment of 13 July 1966, Joined Cases 56 and 58/64 *Grundig and Consten v. Commission* [1966] ECR 321, at no. 394) rested on a common core concept that would have allowed an analogy if the analogue had been worthy of being carried over. See Heinemann A. (2002), *supra* note no. 51, at pp. 294 *et seq.*; 305 *et seq.*; Ullrich H. (1997), *supra* note no. 58, at pp. 1221 *et seq.*

[60] This caused the Commission to look at licence agreements more properly as bilateral transactions, which involved not only restrictions imposed by the patentee on the licensee but also restrictions on the *licensor's* conduct. This approach has frequently but wrongly been criticized for being 'legalistic'. However, licensor restrictions are not simply 'self-imposed' but result from a negotiation and bargaining process between the licensor and the licensee which, in order to overcome the licensing dilemma, requires each party to make concessions. See Ullrich H. and Heinemann A. (2006), in Immenga U. and Mestmäcker E-J., *supra* note no. 39, Immaterialgüterrecht, Part 2, at nos. 12, 23, and *infra* sub 2.3.

[61] See references at *supra* notes nos. 1, 2, 58.

[62] The history begins with the bottleneck of enforcement caused by the asymmetric notification requirement/dispensation in Article 4 of Regulation 17/62. It continues with an administrative authorization practice preparing, on the basis of broad claims of control, block exemption regulations that were issued only after heavy controversy and an 'unblocking' court judgement (see Case 258/78 *Nungesser v. Commission* [1982] ECR 2015), namely Commission Regulation 2349/84 on Patent License Agreements (OJ L 219 [1984], *as amended,* OJ L 113 [1985]) and Commission Regulation 556/89 on Know-how Licensing Agreements (OJ L 61 [1989]). These totally halted the grant of individual exemptions, a fact which made a more 'permissive' block exemption even more necessary, namely Commission Regulation 240/96 on the application of Article 85(3) EEC (now 81(3) EC) to categories of Technology Transfer Agreements (OJ L 31 [1996]), which elevated technology transfer to the level of an objective of policy (see recitals 3, 8). For an account, see Anderman S., *supra* note no. 3, at pp. 57 *et seq.*, 76 *et seq.*; Ullrich H. (1997), *supra* note no. 58, at pp. 1268 *et seq.*

[63] Thus, outside franchising (see *supra* 1.2.a)), trademark licensing has given rise only to a few formal decisions (see *supra* note no. 21), and copyright licences to none. Antitrust control of copyright-related restrictive practices has either been limited to informal administrative practice

However, the specific rationale of this 'sectoral' approach was simply the concrete expression of a broader concept of intellectual property-related competition policy. This became apparent, albeit not of necessity, when the focus of enforcement was broadened in accordance with the intensification and extension of intellectual property protection in the knowledge-based economy. From the perspective of dynamic competition, the pursuit of the goals of intellectual property and of competition policy, it is said, tends to follow a common rationale. And, as held by the model policy, which is US-American antitrust policy,[64] intellectual property neither needs nor deserves to be treated essentially different from any other property anyway.[65] While this holds true as a general proposition,[66] it really has no analytical value, except that it makes clear that intellectual property provides no title to protection from competition. Indeed, its very function is to serve as a means for dynamic competition, in that it enables the holder of the exclusivity to fully capture customers' willingness to pay for his innovation when competing with rivals for (new) market opportunities. The functionality of intellectual property (as with any property!) is thus predicated upon the existence of a competitive market, and it is the market (rather than the exclusivity resulting from intellectual property protection), or more precisely it is the *form and nature of competition prevailing on the market,* which provide the incentive for invention and innovation.[67] Consequently,

or concentrated on the activities of collecting societies (see *infra* sub. 3.2) and on some 'big deals' in the media industry. Likewise, design licences have hardly ever attracted the Commission's attention. See generally Van Bael I. and Bellis J.-F. (2005): *Competition Law of the European Community*, 4th edition, Kluwer Law International, The Hague, pp. 705 *et seq.*, 710 *et seq.*; Ritter L., Braun W. and Rawlinson F. (2004), *supra* note no. 10, at pp. 846 *et seq.*, 860 *et seq.*

[64] US Department of Justice and Federal Trade Commission (1995): Antitrust Guidelines for the Licensing of Intellectual Property (4 Trade Regulation Rep. (CCH) § 13.332), sub 2.1, which state, however, that differences of scope of protection between the various forms of protection will be taken into account when assessing restrictive practices, "just as [. . .] with other particular market circumstances".

[65] See Commission, TT-Guidelines, no. 7 *et seq.*. The point emerges more clearly in the Commission's Draft TT-Guidelines of 25 September 2003, sub. no. 9. Earlier, the Commission had been ambivalent. See Commission, Evaluation Report on Group Exemption Regulation (EC) No. 240/96 for Technology Transfer Agreements, Brussels, December 2001, sub. 3.1. See also Peeperkorn L. (2003): "IP Licenses and Competition Rules: Striking the Right Balance", 26 *World Competition* 527, at pp. 528, 532 *et seq.*

[66] See Case T-65/98 *Van den Bergh Foods v. Commission* [2003] II-4653.

[67] For a more detailed analysis, see Ullrich H. (1997), in Immenga U. and Mestmäcker E.-J., eds., *supra* note no. 58, at pp. 1229 *et seq.*; Ullrich H. (2001): "Intellectual Property, Access to Information, and Antitrust: Harmony, Disharmony and International Harmonization", in Dreyfuss R., Zimmerman D. and First H., eds., *supra* note no. 34, at pp. 365, 371 *et seq.*; Ullrich H. (2003): "Legal Protection of Innovative Technologies: Property or Policy?", in Granstrand O., ed., *Economics, Law, and Intellectual Property*, Kluwer Academic, Boston, at pp. 439, 445 *et seq.*; Drexl J. (2004): "Die neue Gruppenfreistellungsverordnung über Technologietransfer-Vereinbarungen im Spannungsfeld von Ökonomisierung und Rechtssicherheit", *GRUR Int 2004*, pp. 716, 720 *et seq.*; Mestmäcker E.-J. (2004): "Gewerbliche Schutzrechte und Urheberrechte in der Eigentums- und Wirtschaftsordnung", in Fuchs A., Schwintowski H.-P. and Zimmer D., eds., *Wirtschafts- und Privatrecht im Spannungsfeld von Privatautonomie und Regulierung: Festschrift für Ulrich Immenga*, C.-H. Beck, Munich, at pp. 261, 263 *et seq.*; Heinemann A. (2002), *supra* note no. 51, pp. 23 *et seq.*

while the legislative configuration of intellectual property protection as a framework regulation of the market co-determines the conditions of and the potential for competition on a market,[68] it is up to competition policy to define, via its objectives and principles, the bounds and limits of permissible and impermissible intellectual property-based conduct in competition. The assertion of compatibility or convergence of intellectual property protection and of competition, therefore, refers back to the rationale and criteria of the competition policy prevailing at any given time in a jurisdiction when assessing *in concreto* the positive and negative features or effects of a given practice of exploiting intellectual property rights.[69]

2.2. *L'ombra sotto l'ombrellino*

a. The analytical value of Regulation 772/2004

Following the structure of the Commission's Guidelines on the Application of Article 81 EC to Technology Transfer Agreements, and possibly also as a matter of habits acquired over decades, most commentators seek to identify the Commission's revised policy *vis-à-vis* licensing transactions on the basis of the new block exemption, Regulation No. 772/2004, and they do so in the light of the Guidelines.[70] As to that, however, the regulation is not particu-

[68] This influence is generally discussed in economics as a matter of properly defining the scope (length and breadth) of patent or (more rarely) copyright protection (see Lévèque F. and Ménière Y. (2004), *supra* note no. 5, at pp. 25 *et seq.*, 30 *et seq.*, 67 *et seq.*; Scotchmer S. (2005), *supra* note no. 5, at pp. 97 *et seq.,* each with references to a rich literature), but it may result from any feature of the design of the system (see, as to the inventive step requirement, Granstrand O. (2003): "Are We on Our Way in the New Economy With Optimal Inventive Steps?", in Granstrand O., ed., *supra* note no. 67, at pp. 223 *et seq.*). The issue of whether any design defects should be corrected, not only by a (industry-specific? market-specific?) revision of the intellectual property system as a form of market regulation but also in individual cases by virtue of competition law, mainly arises in the context of the control of the exercise of market power (see *infra* 3.3). However, it may also arise in a licensing context, such as when parties contract around limitations of intellectual property protection by means of anticompetitive agreements, e.g., when they seek to suppress intrabrand competition that may arise as a result of the exhaustion of protection (see, as to this effect of the Community's free trade principle, Ullrich H. (2006), in Immenga U. and Mestmäcker E.-J., eds., *supra* note no. 39, at no. 108), or when they narrow down research exemptions or reverse engineering rules (which, as regards software decompilation is anyway outlawed by Article 9(1)(2) of the Directive 91/250/EEC on the legal protection of computer programs, OJ L 122 [1991]).

[69] See also the open-ended discussion by Ian Forrester in this volume, sub. D.; and the critical remarks by Ritter C. (2004): "The New Technology Transfer Block Exemption under EC Competition Law", 31 *Legal Issues of European Integration* 161, at pp. 163 *et seq.*.

[70] See, *inter alia,* Drexl J. (2004), *supra* note no. 67, at p. 716; Zöttl J. (2005): "Das neue EG-Kartellrecht für Technologietransferverträge", *Wettbewerb in Recht und Praxis* 33; Louis J.-V. (2005): "Le nouveau règlement d'exemption par catégorie des accords de transfert de technologies: Une modernisation et une simplification", *Cahiers de Droit Europeen* 377; Klawitter C. (2005): "Safe Harbour und Legalausnahme: Die neue Gruppenfreistellungsverordnung Technologietransfer im Spannungsfeld zwischen Rechtssicherheit und Gestaltungsrisiko", in *VPP-Festschrift*, Munich, p. 487; Ritter C. (2004), *supra* note no. 69; Lübbig T. (2004): ". . . et dona ferentes: Anmerkungen zur neuen EG-Gruppenfreistellungsverordnung im Bericht des Technologietransfers", *GRUR Int* 483; Dolmans M. and Piilola A. (2004): "The New

larly relevant or revealing. Firstly, due to the direct applicability of Article 81(3) EC (since the entry into force of Article 1(2) of Council Regulation 1/2003), block exemptions produce asymmetric effects: they exclude any further application of Article 81(1) EC, the prohibition rule, but they do not exclude the additional and overriding application—with direct effect!—of the exemption rule of Article 81(3) EC.[71] Consequently, the conditions for the application of a block exemption do not reveal the criteria according to which agreements will ultimately be assessed under Article 81(3) EC; they only determine the categories of agreements which do not raise concerns under the prevailing competition policy.[72]

Secondly, contrary to its predecessors, Article 2 of Regulation 772/2004 defines the block exemption it grants not by reference to specific categories of licensing agreements,[73] let alone by reference to specific clauses contained in such agreements, but rather uses very broad and loose terms. This does not provide a basis for concluding whether and why there is a restrictive agreement at all. In part, this open-endedness is due, albeit not as a matter of logic, to the 'economics-based' approach to Article 81(1) EC, whereby the prohibition applies only if it is aimed at or actually results in anticompetitive effects (rather than being merely restrictive).[74] As is well known, exclusive licensing was one of the cases where the Court of Justice established a rule of *per se*

Technology Transfer Block Exemption—A Welcome Reform, After All", 27 *World Competition* 351; Treacy P. and Heide T. (2004): "The New EC Technology Transfer Block Exemption Regulation", 26 *European Intellectual Property Review* 414; Schultze J.-M., Pautke S. and Wagener D. (2004): "Die neue Technologietransfer-Gruppenfreistellungsverordnung der Europäischen Kommission—Mission Completed", 15 *Europaisches wirtschafts und steuerrecht* 437; De Schrijver S. and Marquis M. (2004): "Technology Licensing in the EU after the Big Bang: the New Technology Transfer Block Exemption Regulation and Guidelines", *Business Law Review* 161; Wissel H. and Eickhoff J. (2004): "Die neue EG-Gruppenfreistellungsverordnung für Technologietransfer-Vereinbahrungen", *Wirtschafts und Wettbeverb* 1244. By contrast, see the contribution of Steven Anderman in this volume, sub A, rightfully stressing the equal importance of the TT-Guidelines.

[71] See BGH of 13 July 2004, GRUR Int 2005, 152 (Citroën). In this regard, the position of commentators attributing a constitutive rather than merely a declaratory effect to group exemption regulations is unclear. See Klees A. (2005), *supra* note no. 10, at pp. 49 *et seq.*; Fuchs A. (2005): "Die Gruppenfreistellungsverordnung als Instrument der europäischen Wettbewerbspolitik im System der Legalausnahme*", Zeitschrift für Wettbewerbsrecht* 1, at pp. 9 *et seq.*): national authorities and courts may be prevented from outlawing an agreement that is covered by a block exemption, but why should they be prevented from applying Article 81(3) EC directly to an agreement which comes under a block exemption but exceeds its limitations?

[72] See text *infra* sub. b), c).

[73] Confront Article 1(1) nos. 1–8 Commission Regulation 240/96. Note that the amendment of Council Regulation 19/65 (i.e., the enabling regulation) by Regulation 1215/1999 of June 10 (OJ l 148 [1999]) did not concern Article 1(1)(b) of Regulation 19/65, but only Article 1(1)(a) and (2)(a). Thus, the amendment in no way loosened the Commission's obligation to clearly identify the categories of licensing agreements it wishes to block exempt from the application of Article 81(1) EC, (*contra Fuchs* A. (2005), *supra* note no. 71, at pp. 6 *et seq.*). In its TT-Guidelines (at no.133), the Commission itself stresses the large variety and differing effects of licensing agreements, which Regulation 772/2004 covers with a single 'umbrella'.

[74] See the recent CFI judgment of 2 May 2006, Case T-328/03 *O2 (Germany) v. Commission*, not yet reported, at paras. 65 *et seq.,* with references.

legality, albeit in view of specific circumstances and by setting narrow limits.[75] In part, however, this noncommital definition in Article 2 of the agreements qualifying for the block exemption is the result of some sort of *prima facie* rule of pro-competitiveness of licensing transactions, which the Commission expresses right at the beginning of its Guidelines.[76] This may also explain the awkward disclaimer in Article 2(2)(1) of Regulation 772/2004, to the effect that the block exemption applies only to the extent that the block exempted agreement restricts competition.[77]

b. The political meaning of Regulation 772/2004

Regulation 772/2004 becomes more specific only in Articles 4 and 5, where it defines categories of restrictions which either exclude the availability of the block exemption altogether (Article 4: 'blacklisted' clauses) or are not included in the block exemption (Article 5: severable 'greylisted' clauses). The focus of the Regulation thus is not on defining positively the restrictions that are block exempted, but on determining negatively those restrictions that do not qualify for a block exemption. This reverse approach to the grant of exemptions "by categories of agreements" is not cured by the fact that Article 4 Regulation 772/2004 sets forth a number of sub-exceptions to the exception rule of Art. 4, since by definition these specify not the limits of the group exemption but the limits of the obstacles to a more broadly conceived exemption rule. However, as these sub-exceptions in Article 4(1) and (2) of Regulation 772/2004 correspond to the categories of clauses which have always been of major concern for both industry and the Commission and have therefore been made the subject of a group exemption ever since Regulation 2349/84, the awkward effect of this legislative technique is that the hard core of the block exemption is hidden behind the hard core restrictions that preclude the exemption.

The result of this conceptual reversal is an ambiguity not only in relation to the appraisal of these (so to speak) 'sub-exempted' restrictive clauses,[78] but also as regards the policy underlying the group exemption altogether. On the one hand, relegating these restrictive agreements to the status of sub-

[75] Case 258/78 *Nungesser v. Commission* [1982] ECR 2015. More recently, see OLG Düsseldorf of 23 March 2005, WuW E DE-R 1573—Pflanzeneinstecketikett.

[76] Commission, TT-Guidelines, at nos. 9, 17.

[77] Article 2(2) of Commission Regulation 240/96 contained a similar rule. However, the rule applied in the different context of clauses which typically were innocent (so-called 'whitelisted' clauses); the same cannot be meant by Article 2(2) of Regulation 722/2004. A disclaimer regarding the likely application of Article 81(1) EC to agreements which are block-exempted from Article 81(3) EC is contrary to the system of Article 81 EC (see Drexl J. (2004), *supra* note no. 67, at pp. 724 *et seq.*), and it violates at least the spirit of Article 1(1) of Regulation 19/65 (see *supra* note no. 73).

[78] According to general principles of methodology, such sub-exceptions ought to be construed narrowly, and particularly so as they represent exceptions from hard core restraints; yet they are at the core of the block exemption!

exceptions implies that they are no longer at the centre of the Commission's competition policy concerns. They simply represent no more than a subcategory of stipulations among many others that can be found in licensing agreements, these being granted an indistinct wholesale group exemption. On the other hand, they are carved out from what are the gravest violations of the system of free competition, and, therefore, if nevertheless exempted, they must surprisingly be presumed to produce particularly beneficial effects. A possible explanation of this ambiguity may be derived from the fact that, for the most part, these sub-exempted restrictions concern territorial market divisions. If they are no longer of central interest, then it is because, in the area of intellectual property-related antitrust law, market integration is no longer a guiding principle of the Commission's competition policy.[79] And if they are treated as exemptible despite their hardcore nature, this means that instead the concern has definitely shifted to micro-economic considerations specific to technology transfer transactions. But this is not a very enlightening explanation either, since, in substance, the sub-exemptions of Article 4(1) and (2) differ only marginally from what was the very subject of the block exemption granted by Article 1 of Regulation 240/96.[80]

It must be concluded, therefore, that it is not so much the real concerns which have changed, but that Regulation 772/2004, by granting a very broad, catch-all group exemption, expresses a generally more favourable policy attitude towards licensing transactions. Yet the precise policy rationale underlying this more favourable approach cannot be discerned from Regulation 772/2004 itself. Its all-encompassing scope provides for no analytical hold. Indeed, below the market share thresholds set by Article 3, and within the limits established by Article 4, 'anything goes', meaning there is no

[79] Historically, exclusive territorial licences had been chosen as the category of licensing agreements for the first group exemption (see *supra* note no. 62) precisely because, on the one hand, their market dividing effect was at odds with the competition rules' objective of protecting market integration, and, on the other hand, they may contribute to that market integration if they can be employed as a legal means of technology transfer and market penetration. See the reasoning of the ECJ in its judgment of 8 June 1982, Case 258/78 *Nungesser v. Commission* [1982] ECR 2015, at nos. 53 *et seq.*, 60 *et seq.* For more details, see Ullrich H (1997), in Immenga U. and Mestmäcker E.-J., eds., *supra* note no. 58, at pp. 1219 *et seq.*, 1266 *et seq.*; and the critique in Commission, Evaluation Report, *supra* note no. 35, sub 5.1.3. Of course, market integration has not disappeared as an objective of competition policy, but it has become a sub-consideration in the analysis of whether intrabrand competition is held to be important enough to be protected. See Peeperkorn L. (2003), *supra* note no. 65.

[80] Compared to Article 1(1) of Regulation 240/96, the regime of Article 4 of Regulation 772/2004 regarding territorial restrictions is both more generous (e.g., no time limitation on protection from active sales) and more narrow (a shorter period of protection from passive sales). See also Treacy P. and Heide T. (2004), *supra* note no. 70, at p. 415. The regime is also more 'liberal' than Article 4 lit b of Commission Regulation 2790/1995 on Vertical Restraints, and contrary to earlier drafts, it is quite generous as regards territorial restrictions between competitors in non-reciprocal agreements. See the contribution by Luc Peeperkorn and Lars Kjølbye in this volume, subs. B. and E.3.; Lübbig T. (2004), *supra* note no. 70, at p. 486; Dolmans M. and Piilola A. (2004), *supra* note no. 70, at pp. 354 *et seq.*

need to care.[81] The group exemption regulation therefore mirrors less a recognition of the pro-competitive advantages of specific restrictive agreements than a polito-administrative disinterest in lower-level competition. It is certainly no coincidence that, at least in the English version of the Guidelines (Title 3.0, No. 65), Article 3 of Regulation 772/2004 is designated as a "safe harbour" rule. This terminology is borrowed from US antitrust jargon, where it means administrative abstention from control, and nothing more. By contrast, a block exemption regulation has the much more far-reaching effect of legally validating the agreements it covers, and thus binds competition authorities as well as courts with respect to any kind of action, administrative or civil.[82] It is in view of these effects that Article 1(1)(b) and (2) of Regulation 19/65 require the group exemption to be specific rather than a misunderstood adoption of the US approach to antitrust control.

c. The practical importance of Regulation 772/2004

The qualification of the unspecific, wholesale or 'umbrella' approach of Regulation 772/2004 as a sort of an upgraded *de minimis* approach is confirmed by the Commission's Guidelines on Technology Transfer Agreements. The Guidelines are the centrepiece of the Commission's policy regarding licensing transactions, in that they define: first, whether and when these may at all come under Article 81(1) EC; second, the reasons for their benign control under Article 81(3) EC; and third, the limits of their favourable treatment.

In the Guidelines, the Commission takes the view that, with the exception of hard core restrictions, licences are unlikely to violate Article 81 EC if there are at least four competitively relevant substitute technologies available on the market.[83] The idea underlying this flexible threshold is obviously that, under such conditions of interbrand competition, anticompetitive licensing agreements would not withstand market pressure, either in a horizontal or a vertical relationship. Although the market shares of the five technologies may be quite uneven (and large market shares of competing technologies might even make it less likely to have the necessary number of alternatives), clearly

[81] Note that, according to Article 1(1)(a) and (h) of Regulation 772/2004, the block exemption covers licence agreements as diverse as patent licences, licences for utility models, know-how licences, plant variety licences, licences for topographies, for supplementary certificates, for design rights and for software. These types of protection relate to very different—and differently structured—industries. In addition, some of them raise serious questions as to whether or how much of a technology transfer they might ever imply. See *infra* sub. 2.3 c).

[82] Sadly enough, an American author had to remind us of that. See Patterson J. (2006): "Revision of the New Technology Transfer Block Exemption Regulation: Convergence or Capitulation?" in Ullrich H., ed., *supra* note no. 14, at pp. 53, 67 *et seq.* For a general comparison of US and EU competition law regarding technology licensing, see Feil M. (2005): "The New Block Exemption Regulation on Technology Transfer Agreements in the Light of the U.S. Antitrust Regime on the Licensing of Intellectual Property", 36 *IIC* 31.

[83] Commission, TT-Guidelines, nos. 24, 131. At no. 25, the Commission points out that a smaller number of alternative technologies (two or three) may be sufficient on high-tech or systems technology markets, where innovation is dominated by R&D poles.

this default test diminishes the market share threshold of Article 3 Regulation 772/2004, both as a benchmark of substantive meaning and as a procedural threshold of control.[84] Individual market shares of 20% of competing licensors and licensees simply would not particularly worry the Commission anyway, provided—as is likely—that alternatives are available. By the same token, the controversy about the practicality and the adequate level of a market share threshold for defining the scope of application of the block exemption appears to have dominated the discussion too much,[85] all the more so given that it is uncontested that market shares are no good proxy for the positive or negative impact of a licensing transaction on innovation and competition.[86] The argument simply missed the point of why the Commission chose that criterion: it is a demarcation against intervention by antitrust control, not one of an exemption based on the merits of the agreement.[87]

2.3. The guidance given by the Commission

a. The horizontal-vertical dichotomy and licensing dynamics

More generally, the role of and the need for a group exemption such as Regulation 772/2004 is reduced by the generous, or more precisely, purposive admission of licensing transactions as welfare-enhancing modes of exploiting intellectual property. This purposive treatment results from the very design of the method of evaluating these arrangements under Article 81(1) and (3) EC. Thus, a first and fundamental orientation of the analysis is brought about by the way the point of departure is defined, namely the distinction between licensing agreements between competitors and those between non-competitors. For one thing, this distinction (which is correctly made with

[84] See Monti M. (2004): "The New EU Policy on Technology Transfer Agreements", speech delivered at the Ecole des Mines, Paris, 16 January 2004, available at http://ec.europa.eu/comm/competition/speeches/index_2004.html. Consequently, the literature recommends looking at this threshold first before diving into the difficulties of determining market shares. See Zöttl J. (2005), *supra* note no. 70, at pp. 44 and 113.

[85] See Dolmans M. and Piilola A. (2003): "The Proposed New Technology Transfer Block Exemption", 26 *World Competition* 541, at pp. 551 *et seq.* (2003); Dolmans M. and Piilola A. (2004), *supra* note no. 70, at pp. 360 *et seq.*; De Schrijver S. and Marquis M. (2004), *supra* note no. 70, at p. 180; Lübbig T. (2004), *supra* note no. 70, at pp. 484 *et seq.*; Schumacher V. and Schmid C. (2006): "Die patenrechtliche Zulässigkeit der Benutzung von Forschungswerkzeugen", *GRUR Int*, at p. 6. For a moderate critique, see Drexl J. (2004), *supra* note no. 67, at pp. 722 *et seq.*

[86] For example: innovation markets may be characterized by transient market power, unless stabilized by network effects; high market shares may result from factors unrelated to the technology licensed; etc. For a summary discussion, see Peeperkorn L. (2003), *supra* note no. 65, at pp. 534 *et seq.*.

[87] See Monti M. (2004), *supra* note no. 84, at p. 7; Commission, TT-Guidelines, nos. 37, 65, 130. The Commission's competition policy seems to be characterized by a trend to permanently raise the threshold for actual control (see Ullrich H. (2003): "Competitor Cooperation and the Evolution of Competition Law: Issues for Research in a Perspective of Globalization", in Drexl J., ed., *The Future of Transnational Antitrust Law*, Staempfli/Kluwer, Berne and The Hague, p. 159), which is at odds with the *increase of control capacity* as developed by the decentralization of enforcement by Regulation 1/2003. This confirms the substantive change of its competition policy under the more economics-based approach.

regard to both the product market and the technology market) operates in connection with the fiction that enterprises holding mutually blocking patents are really non-competitors.[88] Frequently, although not necessarily, just the opposite holds true: the blocking situation arises out of (and may even indicate) a rivalry which does not disappear simply because the rivals have ended up in a stalemate. There is also no reason to treat these enterprises as if they were in a vertical relationship. None of the assumptions hold which normally warrant generous treatment of vertical agreements, in particular the assumption that the competitive risks are mitigated by inter-technology competition, and that such agreements are therefore necessarily efficient. Nor is there a reason to grant these pseudo-vertical agreements the favourable treatment of, say, Article 4(2) of Regulation 772/2004.[89] Rather, care should be taken to admit only those restrictions which are really indispensable to unblock the stalemate, including—where severe restrictions are at issue—scrutiny of whether 'circumvention', i.e., the use or development of alternative technologies, would not easily lead out of the impasse.

Such an additional test is of course not without problems because it could become 'interventionist'. Conversely, however, it might also be interventionist to exclude (as does Article 1(1)(j)(i) of Regulation 772/2004[90]) any consideration of potential competition when determining the horizontal or vertical relationship on technology markets. Such a narrow definition indirectly favours the licensed technology with respect to possible substitutes in that it allows the parties to agree on more restrictive conditions than might be warranted, namely those of para. 2 rather than of para. 1 of Article 4. Likewise, by considering only the competitive relationship that exists between the licensor and the licensee on the product market before they conclude their agreement, Article 1(1)(j)(ii) of Regulation 772/2004[91] makes it necessary to disregard the fact that, under the licence, the licensor/licensee-relationship

[88] See Article 1(1)(j)(i) and (ii) Regulation 772/2004; Commission, TT-Guidelines at no. 26 *et seq.*, and in particular no. 32. Another fiction is presented at no. 33: an enterprise holding and working a technology which is about to become obsolete or simply non-competitive due to the appearance of a new breakthrough technology is not considered to be a competitor of the owner of the technology, and is therefore deemed to be in a vertical relationship *vis-à-vis* the latter! This statement of the TT-Guidelines is a clear *protestatio facto contraria* in view of a typical make-or-buy situation, and it involves the risk that the licensing dilemma will be solved so as to protect both sides' horizontal interests. The statement simply mirrors an industrial policy of favouring technology transfer by the winner in the technology race; this has little to do with competition policy.

[89] The less so since licences concluded to dissolve blocking patents are typically reciprocal, a feature which, in horizontal relations is treated as an aggravating circumstance. See Article 4(1)(b), and 4(1)(c)(ii), (iv), (v), (vii) of Regulation 772/2004.

[90] *Outside* the block exemption, potential competition by a substitute technology owned by one of the parties will nevertheless be taken into consideration. See Commission, TT-Guidelines, at no. 30.

[91] In this respect, Article 1(1)(j) contains a principle which the Commission would also apply outside Regulation 772/2004. See Commission, TT-Guidelines at no. 27; the contribution by Luc Peeperkorn, and Lars Kjølbye in this volume, sub. D; Drexl J. (2004), *supra* note no. 67, at p. 722.

might develop from a vertical into a horizontal relationship. This could happen because the licence, i.e., the transfer of technology, should enable the licensee to compete technologically (and then possibly, though not necessarily, to compete economically) with the licensor. That transformation is most likely to occur in the frequent case where the licensing-in decision of the licensee results from a make-or-buy choice of how to enhance his own technological competitiveness.[92] The background to all of this is a fundamental dilemma of competition law regarding technology licensing, which is to properly determine the tradeoff between stimulating technology transfer through licence agreements as a basis for the licensee to enter into innovative activity, and the licensor's willingness to grant such licences notwithstanding the risk of the licensee becoming his rival.[93] The allowance for restrictive terms, which must be made to overcome this dilemma, must apply to both sides in accordance with their respective—usually differing—needs for stimulation by way of the availability of protected markets. The test under Article 81 EC is the indispensability of the restrictions in question, this test may not be pre-empted by an artificial determination of what constitutes a horizontal or a vertical market relationship. Indeed, by relying only on the static aspects of competition when assessing a technology transfer agreement rather than taking account also of the dynamic dimension of the competition between the parties *in casu,* Article 1(1)(j)(ii) invites a misjudgement of the balance between the pro-competitive effects of the transaction and its potential for anticompetitive horizontal effects. Under this approach, all the restrictions that may be acceptable in vertical relationships under conditions of overall effective interbrand competition are permitted. But it is precisely this interbrand competition which, given the dynamics of the transaction, might be affected over time.[94] After all, licensing agreements are negotiated by both parties in a long-term perspective and on the basis of their mutual interests in some protection from competition.

b. Self-assessment

Admittedly, it is just this *a priori* qualification of so many ambivalent licensing agreements as being purely vertical, and therefore entitled to broader

[92] See Cowe and Taylor (1998): "R and D and Technology Purchase through License Agreements: Complementary Strategies and Complementary Assets", 28 *R and D Management* 263; Arora A., Fosfuri A. and Gambardella A. (2003): " Markets for Technology and Corporate Strategy", in Granstrand O., ed., *supra* note no. 67, at pp. 77, 86.

[93] For details, see Ullrich H. (1997), in Immenga U. and Mestmäcker E.-J., eds., *supra* note no. 58, at pp. 1228 *et seq.*, 1265 *et seq.,* with references. See also the contribution by Simon Bishop and Dan Gore in this volume, sub. B.

[94] Note that the dynamic dimension is respected as regards the justifiable duration of a restrictive licensing practice (Commission, TT-Guidelines at no. 147), but apparently without regard for the competitive situation that may or could have developed between the parties. Note also that Article 4 para. 3 of Regulation 772/2004 addresses only a development of competitive relationships between the parties that results from the licensee's efforts to concomitantly develop an alternative technology. See Commission, TT-Guidelines at no. 31. For a critique, see Patterson J. (2006), *supra* note no. 82, at pp. 55 *et seq.*

restrictions, which might provide a particular incentive to transfer technology by licensing. The question of whether it might over-satisfy the actual needs and 'monopolistic' interests of the parties may not matter much within the market share limits of Regulation 772/2004. However, as regards those agreements that fall outside the group exemption, it raises the issue of whether risks of over-shooting can be avoided. Although, due to its focus on Regulation 772/2004, the literature analyzing the Guidelines is not overly rich,[95] a review of the substantive criteria which are proposed (albeit without clear distinction) for the assessment of either horizontal or vertical technology transfer transactions clearly would be misplaced in this introduction. And *a fortiori,* this is not the place for a discussion of the licensing stipulations or practices on which the Guidelines comment specifically,[96] although they do not exhaust the list of the 'usual suspects'.[97] However, it may not be improper to make just two general remarks in the form of questions.

First, the Guidelines correctly require an assessment of the competitive impact of an agreement on the basis of multiple, frequently interdependent "relevant factors",[98] allowing even a certain correction of the horizontal/

[95] See *supra* note no. 70. The focus on Regulation 772/2004 is particularly pronounced both in the German Kommentar-literature and in the English language handbooks on EU-competition law, which typically are structured around available statutory texts; some of them still comment on both the new and the preceding Regulation 240/96, which is helpful as a check-list and point of reference in view of the specific 'umbrella' approach of Regulation 722/2004 (see also *infra* note no. 97). See Van Bael I. and Bellis J.-F. (2005*), supra* note no. 63, at pp. 625 *et seq.*; Stumpf H. and Groß M. (2005): *Der Lizenzvertrag*, 8th edition, Auflage, Heidelberg, pp. 480 *et seq.,* simply summarize the Guidelines. Peeperkorn L. (2003), *supra* note no. 65, and the contributuion by Luc Peeperkorn and Lars Kjølbye in this volume, provide some insight into the theoretical background, as does (from a different perspective) Drexl J. (2004), *supra* note no. 67, at p. 716.

[96] Albeit not always correctly: according to the *Commission*, Guidelines no. 112, 'no challenge' clauses relating to know-how are group exempted, but Article 5(1)(c) Regulation 772/2004 (i.e., one of the 'excluded restrictions') applies to all intellectual property rights, which, according to Article 1(1)(g), include know-how. In addition, the distinction made by the Commission is anything but convincing: indeed, it is an invitation to keep technology secret rather than to disclose it on the basis of patent protection, and it fails to explain why non-essential or non-secret know-how may serve as a basis for a licence agreement and be exempt from challenge on either of these accounts. There is also no reason to protect the licensor from the risk of challenges. After all, it is he who controls the secrecy and the essentiality.

[97] Examples are the 'most favoured licensee' clause, with its ambivalent effects (see recently LG Frankfurt of 6 January 2006, WuW E DE-R 1673-*Classic-Line*; see also Ullrich H. (1997), in Immenga U. and Mestmäcker E.-J., eds., *supra* note no. 58, at p. 1330 (Part C, no. 65); Van Bael I. and Bellis J.-F. (2005), *supra* note no. 63, at p. 651, both with references) or the licensee's obligation to exclusively sell under the licensor's trademark (mentioned but not analyzed in Commission, TT-Guidelines no. 50, 155: must such an obligation be counterbalanced by the licensee's right to also indicate *his* trademark, in particular if he is obliged or supposed to invest in the development of the licensed technology?). Nor is there any discussion of the obligation to use the licensed technology, except summarily in no. 155, although obligations to use may produce the effects of non-competition clauses (dealt with at no. 196 *et seq.*).

[98] To which the existence of licence networks should be added, as discussed by Commission, TT-Guidelines no. 121 in connection with the possible withdrawal of the group exemption (Article 6(1)(a) and (b)).

vertical divide in case a licensee actually owns, but holds back a substitute technology.[99] However, it remains unclear how these factors may actually be "relevant" for detecting the "negative" effects of restrictive licences. Many of the restrictions named normally produce some negative effects, e.g., reciprocal licensing by competitors or territorial market divisions.[100] But the Guidelines seem to assume that such "negative" restrictions are relevant (i.e., practically effective) only in the presence of additional negative market factors such as barriers to entry, maturity of the market, or market power. If so, since this is what the more economics-based approach suggests,[101] how much of what is relevant in which context? Should the Guidelines not have been more specific or, at least illustrative[102] in this respect, so as to make 'self-assessment' feasible? The criticism of the lack of 'workability' of the economic criteria of Block Exemption Regulation 772/2004 applies *a fortiori*.[103] It raises the question of whether the new approach does not, by presenting so many textbook concepts, suggest more control than it will ever be able to achieve in practice? Who else but 'big business' will be able to do the assessment or to defend itself on the basis of the Guidelines, and will even large firms really do it, except where a 'big deal' is at stake? Likewise, which competition authority will ever bring a case fraught with such complexities except in rare scenarios of seriously distorted markets? Of course, in terms of administrative efficiency, the approach may be defensible as an effort to concentrate on the risks of competitive harm that matter 'macro-economically'. But unlike mergers or strategic alliances, licensing agreements (though negotiated individually) are not singular or seminal transactions for industry, including large segments of medium-sized industry.[104] The Guidelines therefore concern a broad transactional practice, for which they create more risks in terms

[99] Commission, TT-Guidelines at no. 135.

[100] As regards the risk of collusion, Commission, TT-Guidelines no. 143 is not quite clear about whether the concern relates to express, or only tacit collusion, since the former may (and does) occur even in imperfectly oligopolistic markets.

[101] See the contribution by Simon Bishop and Dan Gore in this volume, sub B.

[102] Confront the DOJ/FTC-Guidelines for the Licensing of Intellectual Property, *supra* note no. 64.

[103] See also the discussion by Simon Bishop and Dan Gore in this volume, subs. D and E; and the renewed critique by Bird B. and Toutoungi A. (2006): "The New EC Technology Transfer Regulation: Two Years On", 28 *European Intellectual Property Review* 292, at pp. 293 *et seq.*

[104] Take the examples from existing case law: Case 258/78 *Nungesser v. Commission* [1982] ECR 2015; Case 193/83 *Windsurfing International v. Commission* [1986] ECR 611; Case 27/87 *Erauw-Jacquéry v. La Hesbignonne* [1988] ECR 90. All of these landmark cases in this area concerned medium-sized, or at most, large medium-sized enterprises, none of which could afford on any regular basis the legal and economic expert advice required by the Guidelines. There is a divide between high market shares and the size of enterprises (in particular as regards the typically specialized and therefore narrow relevant markets for common bi-lateral licensing) that has to be taken into account if EU antitrust is not to become a privilege for the upper 100 and a risk for the lower 100,000.

of contract validity than they solve,[105] and all the more so because they cover a broad range of different intellectual property rights and industries.[106]

Given that it is only under narrow conditions that restrictive licences will definitely escape Art. 81 altogether,[107] parties may seek relief under Art. 81 para. 3, and the Guidelines even suggest that most restrictive licenses will do so successfully.[108] Notwithstanding the many efficiency gains listed by the Guidelines,[109] confidence that the transaction will rest safely on these grounds might be a matter of optimism alone. This not just because these efficiency gains must be real and unobtainable in the absence of the restrictions,[110] and must be passed on to the consumer to an extent at least commensurate with the negative effects of the restriction:[111] the uncertainty again results from the fact that the Guidelines fail to elucidate how these advantages relate to the "relevant factors" of competition and to the nature of the negative effects of a restriction. More particularly, although the Guidelines make clear that hard core restrictions under Article 4 of Regulation 772/2004 will not normally qualify for an exemption under Article 81(3) EC either,[112] they are silent as to whether the block-exempted exceptions from the hardcore restrictions, which in so many cases are of the essence of a licensing transaction, will apply unconditionally also outside the limits of Regulation 772/2004,[113] i.e., regardless of factors such as the degree of actual market

[105] See the contribution of Simon Bishop and Dan Gore in this volume, sub. E, who discern here a chilling effect on technology transfer, and therefore wishes to reduce the test of objective indispensability of a restriction by giving more trust to the parties' subjective assessment of indispensability. The problem is the circularity of the reasoning, because the subjective assessment will be trustworthy only under conditions of effective competition. The solution is not less, but better guidance.

[106] See *supra* note no. 81 and *infra* text at no. 118 *et seq.*

[107] See *supra* note no. 75, and note that a determination of the acceptable duration of an 'open exclusive licence' (see Commission, TT-Guidelines at no. 8) is as simple as a matter as either a comparative assessment by economic experts or a court-developed rule of thumb (such as that for the duration of non-competition clauses), the latter of which is still missing.

[108] Commission, TT-Guidelines at nos. 9, 146.

[109] See Commission, TT-Guidelines at no. 148. More generally, throughout the Guidelines the pro-dissemination effects, i.e., the technology transfer effect, is stressed. See *id.* at, *inter alia,* nos. 9, 17, 43, 48, 50, 109, 112, 175, 178.

[110] See Commission, TT-Guidelines at no. 149, stressing that hypothetical or theoretical alternatives need not be considered, but that realistic alternatives must be clearly less efficient.

[111] See Commission, TT-Guidelines at no. 150. Since the efficiencies of the agreement must outweigh its negative effects, limiting the benefits for the consumer to a simple compensation of the negative effects is a very low baseline, and even this one will be met only under conditions of fully effective competition (which again is a circular proposition).

[112] See Commission, TT-Guidelines at nos. 18, 37, 65, 131, 169. In particular, no. 18 makes clear that the proviso for the exceptional exemption of hard core restrictions from Article 81(1) EC is made more out of legal prudence than out of a belief that it will ever apply.

[113] Thus, the Commission, TT-Guidelines at nos. 161 *et seq.,* discusses territorial exclusivity and sales restrictions by reference to and largely in terms of Article 4(1) and (2) of Regulation 772/2004. As to output restrictions, see *ibid.* at no. 175 *et seq.* For field of use restrictions, see *ibid.* at no. 179 *et seq.* In legal practice, full reliability of the group-exempted practices outside Regulation 772/2004 also seems to be assumed, provided only that substantial competition is not eliminated (see the contribution of Jochen Burrichter in this volume). This is not without risk,

power, entry barriers, the maturity of the market, the waning distinctiveness of the competitive relationship between the parties,[114] and the nature and purpose of the licensing transaction. However, this can hardly be correct. Firstly, the scope of the block-exempted restrictions frequently results from a political compromise rather than from the best theoretical insight, and at least some of these restrictions have remained controversial.[115] Accordingly, there is a considerable need for justification if they are carried over in unlimited form beyond the limits of Regulation 772/2004. Secondly, with worsening market conditions, the negative effects of restrictive agreements become ever more pronounced and the positive effects become ever more unlikely to be sufficiently passed on to consumer. Clearly, determining the breaking points on this gliding scale with respect to individual cases may turn out to be a highly sophisticated and a—factually and analytically—controversial exercise. Competition authorities may bridge such uncertainties by their enforcement discretion, but the parties cannot. Courts, notwithstanding the burden of proof rules,[116] may ultimately hesitate to invalidate agreements that support heavy investments unless they are clearly overly restrictive. In developing, as they must, rules of common sense that reduce economic complexity,[117] they may therefore tend to err on the side of contract validity. Is this really the kind of incentive to technology transfer which the Guidelines intend to provide?

c. Technology transfer

Thus, while this first remark specifies only a widespread criticism of the Commission's new, euphemistically called 'modernized' competition policy under Regulation 1/2003 and the more economics-based approach,[118] it directly leads to a second remark. The Commission's Guidelines and Regulation 772/2004 are about agreements for the transfer of technology. Their concern is mainly with the dissemination of new technologies through the various geographic and product markets as a matter of 'dynamizing' competition. The overriding consideration is therefore to enhance the technology holder's willingness to license out, and correspondingly to enhance third parties' willingness to license-in.[119] Much of this reads as if it were a sophisticated

since the limits between non-elimination of substantial competition and the existence of market dominance, where criteria definitely change (see *infra* note no. 181), have become fluid.

[114] Commission, TT-Guidelines at no. 135.

[115] See, *inter alia,* Patterson J. (2006), *supra* note no. 82, at pp. 59 *et seq.*

[116] See Article 2 of Regulation 1/2001; Commission, TT-Guidelines at No. 149.

[117] See Von Steindorff E. (1959): *Zweckmäßigkeit im Wettbewerbsrecht*, Klostermann, Frankfurt, pp. 23 *et seq.*

[118] As regards specifically Regulation 772/2004, see Lübbig T. (2004), *supra* note no. 70, at pp. 484 *et seq.*, 488 *et seq.*; Lejeune M. (2004): "Die neue europäische Gruppenfreistellungsverordnung für Technologietransfer-Vereinbarungen", 20 *Computer und Recht* 467, at pp. 467, 472. As regards the legally loose approach of the TT-Guidelines, see Drexl J. (2004), *supra* note no. 67, at pp. 725 *et seq.*

[119] See *supra* note no. 109.

new edition of the theory of 'opening up competition that otherwise would not come into being' underlying the memorable inherency/reasonable reward doctrine.[120] It follows a model of the licence as a grant rather than as a negotiated transaction for the cooperative sharing of market opportunities. The less visible implications of such a strengthening of licensed technology and of licensing as a means of transfer for the competitive position of outsiders, for the wealth of innovation, and for competition policy as an industrial policy, have been discussed elsewhere.[121] A more immediate point is that the technology transfer rationale by no means supports the full range of agreements that are covered by Regulation 772/2004 and/or the Technology Transfer Guidelines.

Firstly in that regard, licensing transactions do not always involve a transfer of technology, at least not one that enables the licensee to thereafter act as an independent competitor in 'his' market on the basis of the licensed technology. One example would be a licence agreement which simply bridges the capacity gaps of the licensor or which supports the contracting-out of manufacturing of the licensor's products.[122] Another example is presented by software licences which serve as a simple manufacturing tool without providing access to the data processing know-how or to the technical know-how the software applies.[123] Secondly, Regulation 772/2004 and the Guidelines extend their coverage to the licensing of intellectual property that is not technology-related. Software again is an example to the extent that its subject-matter is the processing of organizational rather than technical data.[124]

[120] See *supra* note no. 1.

[121] See Ullrich H. (2004): "Expansionist Intellectual Property Protection and Reductionist Competition Rules: A TRIPs Perspective", 7 *Journal of International Economic Law* 401, at pp. 420 *et seq.* (also published in Maskus K. and Reichman J., eds. (2005): *International Public Goods and Transfer of Technology Under a Globalized Intellectual Property Regime*, Cambridge University Press, Cambridge, at pp. 726, 746 *et seq.*)

[122] According to Commission, TT-Guidelines at no. 44, sub-contracting is covered by Regulation 772/2004. However, sub-contracting may take very different forms, some of which imply that the sub-contractor may not use the principal's licensed technology either outside the sub-contracting relationship or once it has been terminated, in which case the technology transfer is ineffective. See also *supra* note no. 44.

[123] See Article 1(1)(b) of Regulation 772/2004. The extent to which copyright-based software licences actually fall under Regulation 772/2004 depends on whether or not they are directly linked to the manufacturing of products. In this regard, it needs to be noted that, according to Article 1(1)(e), products may also consist of services, and that a licensed manufacturing process need not affect the nature or quality of the products produced. See Commission, TT-Guidelines at no. 43. As a result, all software-based manufacturing processes are covered, and so is software for the production of software. Nowhere is it said that the software licensed must be in the form of source code. For details, see Berger K. (2005): "Zur Anwendbarkeit der neuen Technologietransfer-Gruppenfreistellungsverordnung auf Softwareverträge", *KuR* 15; Polley R. (2004): "Softwareverträge und ihre Kartellrechtliche Wirksamkeit", 20 *Computer und Recht* 641; Zöttl J. (2005), *supra* note no. 70, at p. 35. Surprisingly, licences for technical databases are not mentioned.

[124] In addition, the extension of Regulation 772/2004 to copyright raises a problem of legislative competence, since Article 1(1)(b) of Regulation 19/65 covers only agreements concerning industrial property. See Ullrich H. (1997), in Immenga U. and Mestmäcker E.-J., *supra* note no. 58, at p. 1208 (no. 3, note 15).

Design licences are another example. It is true that design may be technology-related, even though its protection is not available where it is dictated by technical function.[125] But its subject matter reaches far beyond technologies, and typically so.

The Technology Transfer Guidelines go even further when claiming that their principles should be applied to copyright licences as well, at least as regards the reproduction and distribution of copyrighted works in embodied form.[126] They are careful enough to suggest only an analogy. But they give no answer to the question (indeed, they do not even raise it) of what basis this analogy has. For instance, how does the creative nature of copyrighted work translate via licensing into efficiencies, as do technological achievements due to their rationalizing effect?[127] The problem, is not so much the application of Regulation 772/2004 to the licensing of certain industrial property rights which have no or only a marginal scope of technological application, since rightly or wrongly the Regulation cuts across very different industries anyway,[128] and since a teleological reduction of its scope of application may easily be envisaged should it prove necessary. Rather, the concern must be that the assessment criteria suggested by the Guidelines might not fit the investment risks, adoption costs and product life cycles[129] of copyrighted organizational software, fashion design or literary and artistic works. Licensors in such fields may not need the same licensing incentives, as licensing is in the nature of their business anyway, and the licences they conclude may produce smaller efficiency gains where their exploitation does not depend on the existence of complementary assets, upon which the Guidelines

[125] Article 7, Directive 98/71 EC on the legal protection of designs (OJ L 289 [1998]); Article 8, Council Regulation 6/2002/EC on the Community Design (OJ L 3 [2002], *corrigendum* OJ L 179 [2002]).

[126] Commission, TT-Guidelines, at nos. 51, 52.

[127] Whereas a patented invention constitutes a technical teaching which the licensee has to adopt when manufacturing the products covered or according to the process licensed, thus enhancing his technological knowledge and capacity, the licensee of a literary or other work will simply publish, i.e., reproduce and distribute the work as such. The work will add to his production line (his catalogue of works), but it will not enhance his entrepreneurial skill or capacities. There simply is no transfer of manufacturing knowledge. Such copyright licences really are more akin to distribution agreements than to manufacturing licences.

[128] See *supra* sub. 2.2.(b) at note no. 81.

[129] Ever since the *maize seed* case (i.e., *Nungesser*—see *supra* note no. 75), product life cycle has been an important criterion. The Guidelines recognize this, but only when that criterion supports restrictive licensing—and not when it should caution against allowing it. Thus, Article 1(1)(h) of Regulation 772/2004 correctly brings supplementary certificates within the definition of patents, so that the agreement remains block exempted as long as there is at least one original valid patent, including its prolongation by a certificate (Commission, TT-Guidelines at no. 55). However, since by definition supplementary certificates concern a period in which the product innovation in question has passed far beyond its apogee, it is questionable whether licences granted at that end of the product life cycle should still qualify for licensor and/or licensee protection in the form of restrictive clauses, particularly if the market in general has become mature as well (TT-Guidelines no. 139 do not clearly distinguish between the maturity of the technology and the maturity of the market on which it competes with other technologies).

place so much weight.[130] This is not to say, of course, that these types of licensing transactions may not justify restrictive agreements or produce efficiency gains. But under an economics-based approach to competition policy, the types of efficiencies and the types of justifiable restrictions ought to be specified more distinctly.

3. Solving the problems of the intellectual property system?

3.1. Technology pools

One of the major issues raised in the discussion on the reform of Regulation 240/96 was the non-availability of the group exemption for multi-party licensing.[131] However, since this could be remedied only by an extension of the enabling Regulation 19/65 (which was not likely to be obtained easily from the Parliament and the Council), the matter was not pursued further. Instead, in its Guidelines on Technology Transfer Agreements, the Commission promises to apply to multi-party "license agreements, which are of the same nature as those covered by the block exemption, . . . by analogy the principles set out in the TT-Block Exemption Regulation".[132] Given the broad, unspecific nature of Regulation 772/2004, this promise seems to cover most multi-party licensing operations. But it may be an empty promise. For one thing, it does not bind courts. For another, if the promise is made within the market share thresholds of Article 3 of Regulation 772/2004, it will hardly be available for many horizontal licensing arrangements, and it will be too generous for vertical agreements.[133] However, if Article 3 were disregarded altogether in the context of multi-party licensing, the analogy would become easily questionable. For example, territorial market divisions negotiated between several competing enterprises may not necessarily benefit from the sub-exceptions of Article 4(1),[134] and grantback clauses or termination rights in case of validity

[130] See Commission, TT-Guidelines at nos. 17, 148; Lévêque F. and Ménière Y. (2005), *supra* note no. 5, at pp. 89 *et seq.*

[131] See Commission, Evaluation Report, at nos. 76, 132 *et seq.*

[132] Commission, TT-Guidelines, at no. 40.

[133] A combined market share of 20% (Article 3(1) of Regulation 772/2004) is easily reached by competitors, and market shares of 30% of each of the several parties to the agreement (Article 3(2)) may be a problem, since Regulation 772/2004 focuses only on the relationship between a single licensor and a single licensee, as opposed to the relationship between several licensors or between several licensees, as would be present in a multi-party context. Additional problems arise from the fact that potential competition on technology markets is not taken into account when determining the parties' competitive relationship (see *supra* text at note no. 90), and from the fact that multi-party licensing may involve both horizontal and vertical licensing relations.

[134] Likewise, the application of the sub-exceptions in Article 4(2) of Regulation 772/2004 may become problematic, because, in a multi-party context, licensing negotiations are not only determined by the bilateral licensing dilemma, i.e., the question whether the transfer would take place also in the absence of the restrictive covenants. Rather, the bilateral licensor/licensee negotiations may be superseded by concertation among the several licensees (or licensors), which is precisely the situation Regulation 19/65 wished to avoid by insisting on limiting any group exemption to bilateral agreements.

challenges have a different meaning and effect in a multi-party agreement as compared to bilateral relations.[135]

Still, multi-party licensing as such, just like bilateral licensing, has as its object the transfer of technology. Therefore, if due account is taken of its broader implications for competition, the technology transfer rationale of Regulation 772/2004 and of the Guidelines may directly inform the analysis of such arrangements. By contrast, pooling agreements, whether bilateral or multilateral, bring in another dimension in that, in addition, they affect the parties' autonomy and policy regarding third-party licensing. It is this feature which the Guidelines[136] have picked up on as a distinguishing and connecting factor for an extensive separate analysis of the competition-law implications of technology pool-building, and it certainly represents more than a merely legal point. The agreement on whether and how licences for the pooled technology will be granted to third parties implies concertation not only on prices and conditions of the licences, as well as on the selection of the technology[137] and the third parties to be licensed, but also on how the pool partners position themselves in relation to each other and to potential licensees. Although it adds to the anticompetitive potential of pooling,[138] the latter aspect has not received much attention from the Commission. The reason may be that the Commission's analytical starting point, while basically correct, is unrelated to and rather distracts from the Commission's main concern with pooling, namely the realization of the transactional benefits it may bring about, both for the parties to the pool and for third parties. Depending on the nature of the technology in question, such transactional efficiencies mainly concern search and negotiation cost savings. Indirectly, these cost savings facilitate not so much the full transfer of a complete, more or less complex and/or multidisciplinary technology but its broad diffusion to users, possibly

[135] See Commission, Evaluation Report, at no. 133. Note that the Commission's legalistic treatment of grantbacks and no-challenge clauses under Regulation 240/96 essentially has been carried over to the more economics-based framework of the TT-Guidelines and TT-Regulation 772/2004, but without appropriate the nuances. See Orstavik I. (2005): "Technology Transfer Agreements: Grant-Backs and No-Challenge Clauses in the New EC Technology Transfer Regulation", 36 *IIC* 83.

[136] Commission, TT-Guidelines, at nos. 41, 210.

[137] The Commission's main concerns are (royalty) price fixing and bundling. See TT-Guidelines, at nos. 213, 219.

[138] The Commission, TT-Guidelines, at no. 213, notes the effect a pool has on competition for innovation on the part of third parties. However, the Commission does not refer to the internal coordination of pool partners' conduct. The effects of such coordination may be ambivalent: joint licensing may be *restrictive* with respect to the technology market; but it may be *liberalizing* as far as the product markets are concerned, since, due to general licensing, the pool partners may freely choose their sub-contractors and distributors, and since the number of actors on the product market will tend to increase. See Ullrich H. (2004): "Patentgemeinschaften", in Fuchs A. *et al*, eds., *Festschrift für Ullrich Immenga*, C.-H. Beck, Munich 2004, 403, 416, 422 *et seq.*; and my contribution in this volume, sub. B 2 a) (iii), c) (iii).

also to a diversity of uses.[139] Pool-building therefore typically serves the introduction of new system technologies and helps them to penetrate markets. The importance of pools increases to the extent that standardization of interfaces of system components[140] and a proliferation of—technically interdependent or economically blocking—intellectual property rights render easy access to licences necessary, if not indispensable. Thus, pools have seen a renaissance, in particular in information technology[141] but also—in different factual settings—in biotechnology,[142] all the more so because patent protection has been expanded in both areas and because its strategic acquisition by the system leaders has increased the propensity for pooling. Not infrequently, overlapping and/or complementary patent portfolios result less from individual than from joint or coordinated research and development, so that the pooling of such portfolios represents the achievement of a long-term strategy rather than the solution to a stalemate resulting from competitive rivalry.

However, in its Guidelines the Commission is not interested in either the origin of the pool or in its strategic dimension, such as the interplay with standardization,[143] and thus it is not concerned with the overall impact of such 'arranged innovation' on the system of competition.[144] Rather, the Commission seems to proceed on the assumption that technology pools have an efficiency potential that needs to be realized as such, or as a matter of ensuring the full efficiency gains available from other upstream or downstream arrangements in the innovation process, provided only that any direct anticompetitive effects of the pool are minimized. To this effect, the

[139] This holds true in the context of standardization in the information and telecommunications industry, where licences are offered by pool administrators electronically, with standard terms of contract, to a broad diversity of potential users who are familiar with the technology and who only need to obtain 'permission' from the pool to use it. In this regard, a visit to the homepage of Philips (www.licensing.philips.com/licensees/conditions/cd/documents) or MPEG LA (www.mpegla.com) is informative.

[140] See *supra* note no. 52. See also Carlson S. (1999): "Patent Pools and the Antitrust Dilemma", 16 *Yale Journal of Regulation* 359, at pp. 393 *et seq.* (1999); Schallop M. (2000): "The IPR Paradox: Leveraging Intellectual Property Rights to Encourage Interoperability in the Network Computing Age", 28 *AIPLA Quarterly Journal* 195, at pp. 226 *et seq.*, 251 *et seq.*.

[141] See *supra* notes nos. 139, 140. See also Merges R. (2001*), supra* note no. 34, at pp. 146 *et seq.*. MPEG LA has developed the licensing of pooled patents relating to newly developed standards into an independent global, service-based business. See Lee P. (2006): "Alternative One-Stop Platform Technology Patent Licenses", paper presented at the International Workshop on "Gene Patents and Clearing Models", Leuven, 8–10 June 2006 (to be published by Van Overwalle ed.).

[142] See USPTO (2000): *White Paper: Patent Pools: A Solution to the Problem of Access in Biotechnology Patents?*, Washington D.C., December 5, 2000; Verbeure B., Van Zimmeren B., Matthijs E. and Van Overwalle G. (2006): "Patent Pools and Diagnostic Testing", 24 *Trends in Biotechnology* 115; Van Overwalle G., Van Zimmeren B., Verbeure B. and Matthijs E. (2006): "Models for Facilitating Access to Patents on Genetic Inventions", 7 *Nature Reviews/Genetics* 143.

[143] See *supra* note no. 140.

[144] See my critique in this volume. See also the early warning by Carlson S. (1999), *supra* note no. 140, at pp. 383 *et seq.*, 398 *et seq.*.

Commission, closely following the US approach,[145] proposes a *per se* legality rule for the pooling of 'essential' technologies as such[146] (the concept is borrowed from standardization,[147] and outside a standardization context it is quite difficult to grasp), which will immunize some pools but not others. This is so because of: the need for internal coordination among pool members; the interest in subjecting the licence grant to specific conditions;[148] and the fact that a pool's attractiveness frequently depends on whether complementary technology is also available on a voluntary basis. With respect to the assessment of these qualified pools under Article 81(3) EC, the Commission does not, however, offer more than some indicia as to the limits of its tolerance and some self-evident, general standards.[149]

Yet it is not this problem of a correct and easy self-assessment which has triggered criticism by practitioners, but the lack of legal certainty resulting from the fact that the essentiality of a technology (or rather of some of its elements) may change over time,[150] and from the fact that the legality of the pool rests upon the validity of the pooled intellectual property rights.[151] Such criticism indeed touches upon a weak point in the interaction of competition law and intellectual property law in the area of joint or complementary control over a technology. Basically, the transaction cost savings resulting from a pool relate not so much to the search costs for finding a technology (and certainly not in a standardization context), but to the costs of determining ownership and of approaching potential users of a complex systems technology. At least the first type of cost savings is a matter of the proper configuration of intellectual property law. While patent law is at least good at identifying technologies and its owners,[152] it serves (much more than copyright does) as a means of fragmentation of the technology into distinct pieces of ownership. The function of the pool is to reassemble these pieces for efficient exploitation. As such, it may improve the operation of the system of

[145] See Carlson S. (1999), *supra* note no. 140, at pp. 376 *et seq.*; Schallop M. (2000), *supra* note no. 140, at pp. 272 *et seq.*; Merges R. (2001), *supra* note no. 34, at pp. 156 *et seq.*

[146] Commission, TT-Guidelines at no. 220. Note that, by not applying Article 81(1) EC to pools of 'essential' technology, the Commission can also avoid almost all issues of market power the pool may raise under both Articles 81(3) and 82 EC (since 'efficient' pooling cannot constitute an abuse!).

[147] See the ETSI *Guide on Intellectual Property Rights*, November 23, 2005, Annex A: ETSI Intellectual Property Rights Policy, sub. 15 at no. 6 (available at www.etsi.org/legal/ETSI_Guide_on_IPRs_a.htm).

[148] As regards control of provisions on grantback and no-challenge obligations, see *Commission*, TT-Guidelines, at nos. 228 *et seq.*.

[149] Commission, TT-Guidelines, at nos. 224, 227 *et seq.*.

[150] See Commission, TT-Guidelines at no. 222 and the critique by Peter Plompen in this volume.

[151] See Commission, TT-Guidelines, at no. 229; the contribution by Douglas Melamed in this volume.

[152] See the list of patents offered for licensing by the references given at *supra* note no. 139. Non-registered copyright cannot fulfil an identification function, nor does not definitely identify infringement, since it does not protect against independent creation of literally identical or (non-literal) similar works. As a result, it is difficult to see how technology protected only by copyright can be qualified as 'essential'.

intellectual property.[153] However, the function of intellectual property is to serve as a basis for competition by individual enterprises in that it allows them to autonomously and exclusively exploit a technological asset. Therefore, the role of competition policy is precisely to prevent the collective exploitation of intellectual property, except if it is required by technical or economic necessity. Consequently, the formation of over-inclusive technology pools presents only a subordinate issue of competition policy. Yet it is mainly this side issue which is elevated to a principal consideration. Thus, as regards Article 81(1) EC, the dividing line of *per se* legality is marked by the criterion of 'essentiality' rather than by the question of whether there are alternatives to the building of pools. Likewise, as regards Article 81(3) EC, where the criteria of efficiency, consumer benefit, indispensability and non-elimination of substantial competition are the only ones which are relevant, the Commission takes account of additional interests in the safe and sound operation of the pool as an institution of private law of property. The reason is apparently that the Commission or, for that matter, national competition authorities, may not have the expertise to define (or the capacity to monitor the observance of) the truly relevant criteria to be applied in connection with the pool, such as: the criterion of essentiality, which is of a technical nature and which changes over time; or the criterion of non-elimination of substantial competition, which standardization-related pools tend to miss as the standard becomes generally accepted. However, competition authorities may not, as a substitute, rely on or recommend certain 'democratic' structures of the pool, except if any other structure would be restrictive in itself.[154] Competition law is concerned with the anti-competitive or pro-competitive purpose or effect of a private law arrangement, not with its form or its good governance, and it has no means to impose or enforce such standards of best modes of private self-regulation.

Likewise, competition law may not accept restrictive agreements or, for that matter, a specific design of pools, on the ground that it better compensates perceived or actual deficits of the intellectual property system,[155] such as risks of invalidation of patents which, after all, have been applied for by the

[153] See Merges R. (2001), *supra* note no. 34, at pp. 124 *et seq.*, 133 *et seq.*; Carlson S. (1999), *supra* note no. 140, at pp. 362 *et seq.*, 367 *et seq.*, 379.

[154] Contra: Commission, TT-Guidelines at nos. 230 *et seq.* Note that the adoption of democratic structures for the pool, while possibly helping to contain the exercise of the pool's power *vis-à-vis* members and potential licensees, does nothing to limit the pool's effects on competitors. Yet according to the more economics-based approach, which the Commission professes to uphold, it is the latter effect, not the former, that matters most.

[155] In fact, the Commission here addresses the wrong problem: patent pools are not so much problematic because patent protection results in fragmented property but because, in combination with standardization, they might allow low-key technological advances to become dominant technologies. See Gandal N. (2002): "Compatibility, Standardization, and Network Effects: Some Policy Implications", 18 *Oxford Review of Economic Policy* 80, at p. 88; Schallop M. (2000), *supra* note no. 140, at pp. 235 *et seq.*, One of the fallacies of the 'essentiality' criterion, therefore, is that it suggests a socially important technology where there is only a (standardized and hence) commercially successful one.

parties. The test is not whether the design of the restrictive agreement better serves the interests of the parties, nor even whether it optimizes the operation of intellectual property protection as a system of incentives or rewards, if that is its purpose.[156] Rather, the test is whether pooling, by its purpose and effects *in casu,* is commensurate with and indispensable for the achievement of efficiency gains. Consequently, there is a fundamental divide between, on the one hand, the optimization of intellectual property protection by pools that are tailor-made to support its operation, and, on the other, the acceptance of restrictive pools by competition law if and to the extent to which their pro-competitive effects outweigh their inherent (or their additional) anticompetitive results. The divide is obscured when pools are perceived essentially only as price-fixing arrangements rather than as a collectivization of intellectual property, and when they are then immediately excused from Article 81(1) EC as *per se* pro-competitive whenever they—seemingly[157]—concentrate on 'essential' technology. Indeed, contract law offers a broader spectrum of solutions to the problem of reducing the transaction costs of exploiting complex technologies, which parties, on the basis of their autonomy, will design in accordance with the actual degree of fragmentation of property and of dispersion of their owners as well as in accordance with the likely number of potential users and their possibly varying and limited interests.[158] As a matter of competition policy, the choice among the many alternative modes of coordinated exploitation should be informed by the four criteria of Article 81(3) EC rather than by a wholesale acceptance of pools of 'essential' technologies, all the more so since, in many cases, the markets in question tend to be dominated by a few system leaders.

3.2. Collecting societies

Similar problems arise in the area of the exploitation of traditional copyright in non-embodied form,[159] in particular as regards secondary rights. Here

[156] See *supra* sub 2.1, text at note. 65 *et seq.*.

[157] See *supra* notes nos. 147, 152, 155. As to the ambiguous qualification of patents as blocking, complementary or competing, see Carlson S. (1999), *supra* note no. 140, at pp. 365 *et seq.*, 389. The large and increasing number of patents offered as 'essential' also raises doubts as to their alleged essentiality.

[158] In cases where pools have only 2 or 3 members and/or where the numbers of patents or of potential users are limited, or where the latter are easily identifiable, clearing mechanisms may be more appropriate than pools. See Ullrich H. (2004), *supra* note no. 138, at pp. 422 *et seq.*, 426 *et seq.*; my contribution in this volume, sub C 2 b); Van Overwalle G., Van Zimmeren B., Verbeure B. and Matthijs E. (2006), *supra* note no. 142, at pp. 145 *et seq.* (2006); Van Zimmeren B., Verbeure B., Matthijs E. and Van Overwalle G. (2006): "A Clearing House for Diagnostic Testing: The Solution to Ensure Access To and Use of Patented Genetic Inventions?", 84 *Bullettin WHO* 352.

[159] As to licensing of technological copyright (software, databases,), which falls under Block Exemption Regulations 2790/1999 or 772/2004. As to the treatment of copyright exploitation in embodied form by analogy to technology transfer agreements, see *supra* text at notes nos. 123 *et seq.*, 126.

multiple, dispersed and varied user interests present the paradigmatic example of high search costs for the user and of non-surmountable transaction and enforcement costs for the exploitation of works by the individual right owner(s).[160] However, the standard approach to the problem, i.e., the establishment of collecting societies enjoying *de facto,* if not *de jure* monopolies, and their control by either national regulation and/or the competition rules of the Community, has come under considerable stress. The reasons are: on the one hand, *the transformation of market structures*—a few big users co-exist with small ones, and some major right owners might bypass collecting societies on their way to the market for secondary rights; and on the other hand, (again) *information technology*—which creates both a new market for online distribution and the means to largely control it electronically.[161] The combined effects of these developments are, firstly, increased possibilities of individual exploitation, some theoretical, some practical,[162] and secondly, a demand for multi-territorial user rights for online distribution.

Collecting societies have reacted to these challenges by concluding reciprocal agreements providing for the grant of multi-territorial licences covering their full repertoire. However, although the Commission, first accepted this approach under competition law,[163] it has executed a *volte-face* and shifted to

[160] See the contribution by Ernst-Joachim Mestmäcker in this volume, subs. A, C. For an examination of Court and Commission practice, see the contribution by Rafael Allendesalazar and Roberto Vallina in this volume.

[161] Regarding the structure of the market, see the contribution by Frédéric Jenny in this volume, subs. A, B. As to technological changes, see Capobianco A. (2004): "Licensing Music Rights: Media Convergence, Technological Developments and EC Competition Law", 26 *European Intellectual Property Review* 113; Ficsor M. (2003): "Collective Management of Copyright in the International Environment", *ZUM* 3, at pp. 11 *et seq.*; Kreile R. and Becker J. (2005): "Digital Rights Management und private Vervielfältigung aus der Sicht der GEMA", in *Festschrift für G. Schricker zum 70*, C.-H. Beck, Munich 2005, at p. 387 (advocating a combination of digital rights management and collective management of copyright exploitation by collecting societies).

[162] See the critical assessment by Drexl J. (2006): "Auf dem Weg zu einer neuen europäischen Marktordnung der Kollektiven Wahrnehmung von Online-Rechten der Musik?", in Riesenhuber K., ed., *Wahrnehmungsrecht in Polen, Deutschland und Europa*, INTERGU-Tagung, Berlin, at p. 193; Drexl J. (2006): "Das Recht der Verwertungsgesellschaften in Deutschland nach Erlaß der Kommissionsempfehlung über die Kollektive Verwertung von urheberrechten", paper presented in the series of "Deutsch-französische Urheberrechtsvorträge" of the Max-Planck-Institute for Intellectual Property, Munich, and the Institut de Recherche en propriété intellectuelle, Université Paris II, September/November 2006, sub. II. 4., III. 1. Note that individual enforcement, in particular recovery of lost profits, will always remain a problem for individual authors.

[163] See Commission, decision of 8 October 2002, case COMP/C2/38.104—*IFPI "Simulcasting"*, OJ L 107 [2003]; the contribution by Thomas Vinje and Ossi Niiranen in this volume, sub. 3.2; the contribution by Ernst-Joachim Mestmäcker in this volume, sub. E 3; Gotzen F. (2005): "A New Perspective for the Management of Copyright and Competition Law in the Internal Market", in *Festschrift für Gerhardt Schricker zum 70. Geburtstag*, C.-H. Beck, München, at p. 299, all of which report furthermore on subsequent action by the Commission regarding reciprocity agreements (see also Commission, IP/05/1056: Online Music Distribution: Commission opens public consultation procedures regarding the undertakings made by BUMA and SABAM). The Commission has also opened proceedings against CISAC and its members, claiming that membership rules requiring authors to assign rights only to their national collecting societies violate Article 81 EC (reported in *Europäische Zeitschrift für Wirtschaftsrecht* 2006, at p. 130).

a soft regulatory approach favouring Community-wide operating collecting societies offering their full or—possibly—a more or less specialized repertoire.[164] The resulting controversy is due to a number of tensions, contradictions and conflicts.[165] In particular, the Commission's Recommendation of 18 October 2005 on collective cross-border management of copyright and related rights for legitimate online music services seems to be more concerned with promoting online services than with competitively ordering the music market and the proper functioning of collecting societies.[166] Its preference for free choice by authors/right holders among Community-wide operating collecting societies might perversely reinforce the uneven bargaining position of the former.[167] It might also result in both concentrated sub-markets and a subversion of the principle of solidarity (which underlies membership in collecting societies) by a new principle of specialization, since such specialization will allow discrimination by types of music while maintaining on its face the non-discrimination rule. Whether users will be better off seems to be an open question as well. Competition among collecting societies will hardly develop fully, given that specialization is so attractive, and given that competition between collecting societies is more apt to concern the performance of management than achievements in market penetration and royalty levels—quite apart from the fact that the principle of calculating royalties in accordance with covered territories, rather than by reference to a unitary Internal Market, is by no means ruled out.[168]

[164] Commission, Recommendation of 18 October 2005 on collective cross-border management of copyright and related rights for legitimate online music services, OJ l 276 [2005], at p. 54 (with mistaken indication of date). See also Commission, Staff Working Document of July 2005, "Study on a Community Initiative on the Cross Border Collective Management of Copyright" (available at http://europa.eu.int/comm/internal_market/copyright/docs/management/study_collectivemgmt_en.pdf); Commission, Staff Working Document, "Impact Assessment Reforming Cross-Border Collective Management of Copyright and Related Rights for Legitimate Online Music Services of 11 October 2005, SEC (2005) 1254 (providing an account of a consultation procedure and a framework for assessment in the future). The Recommendation and the Commission Staff Working Papers were issued after the 2005 EUI Competition Workshop.

[165] For a detailed critical analysis, see Drexl J. (2006), in Riesenhuber K., ed., *supra* note no. 162. For the preceding discussion on the collective management of copyright in the Internal Market, see Tuma P. (2006): "Pitfalls and Challenges of the EC Directive on the Collective Management of Copyright and Related Rights", 28 *European Intellectual Property Review* 220 (a misleading title, since there is no directive); Dietz A. (2004): "European Parliament Versus Commission: How to Deal with Collecting Societies", 35 *IIC* 809; Gotzen F. (2005), *supra* note no. 163, at pp. 303 *et seq.*

[166] See Commission, Recommendation, sub. 2 (". . . facilitate the growth of legitimate online services . . ."); Commission, Impact Assessment, at 4.12, 5.1.1.

[167] As to these differences, see Jenny F., *supra* note no. 161. See also Kretschmer M. (2003): "Digital Copyright: The End of an Era", 25 *European Intellectual Property Review* 333, at pp. 337 *et seq.*

[168] This concept was at the basis of the reciprocity agreements accepted by the *Simulcasting* decision (*supra* note no. 163). See Drexl J. (2005), in Riesenhuber K., ed., *supra* note no. 162, sub. II.3.c), who thinks that such calculation is both inherent in the principle of territorial copyright protection and supportive of the social function of collecting societies. Indeed, it is not necessarily contrary to the case law of the Court of Justice regarding the relationship between national

In addition, the impact of digital rights management on the market is not really predictable. It may allow big players to bypass collecting societies without really enabling authors to individually bring their works to full market value. The structure of the market is very is ambivalent and split, thus allowing neither a pure competition nor a pure regulatory approach to control. The resulting difficulties in 'policing' the market are compounded by the fact that digital rights management might undercut the very operation of the copyright system,[169] which has not yet been fully harmonized, let alone unified.[170] Moreover, as a matter of fair regulation of copyright markets and of collecting societies, online exploitation of works cannot simply and totally be separated from off-line exploitation,[171] nor may it be dissociated from the overall modes of operation or from the objectives with which collecting societies are supposed to comply under national law. The Commission's Recommendation seems to ignore all of this. In fact, the Community's authority to harmonize the law of collecting societies in view of objectives other than undistorted competition is less than clear,[172] however clear the

intellectual property and the rules on the free movement of goods and services, since precisely with respect to the exploitation of copyright in non-embodied form, the Court has recognized the legitimacy of territory-wise royalty-setting as a matter of fully realizing the profit potential of primary exploitation of intellectual property on markets of differing yield. See ECJ judgment of 18 March 1980 in *Coditel v. Ciné Vog Films* [1980] ECR 881, at no. 14 *et seq.* While online exploitation does not naturally fit this concept, it must take account of the difference of national laws. See *infra* notes nos. 169, 170.

[169] The conflict between digital rights management based on technical protection measures and the various public policy limitations of copyright protection is well known. See Dusollier S. (2005): *Droit d'auteur et protection des oeuvres dans l'univers numérique*, Larcier, Brussels, pp. 152 *et seq.*, 459 *et seq.*; Bechtold S. (2004): "Das Urheberrecht und die Informationsgesellschaft", in Hilty R. and Peukert A., eds. (2004): *Interessenausgleich im Urheberrecht*, Nomos, Baden-Baden, p. 67; Ginsburg J. (2005): *Legal Protection of Technological Measures Protecting Works of Authorship: International Obligations and the US Experience*, Columbia Public Law Research Paper 0593/2005 (available at http://lsr.nellco.org/columbia/pllt/papers0593). The conflict is exacerbated in the EU by the fact that the Directive on copyright protection in the information society (of 22 May 2001, OJEC 2001 L 167, 10) does not fully harmonize the law. See Dusollier S. (2003): "Exceptions and Technological Measures in the European Copyright Directive of 2001—An Empty Promise", 34 *IIC* 62; Braun N. (2003): "The Interface between the Protection of Technological Measures and the Exercise of Exceptions to Copyright and Related Rights: Comparing the Situation in the United States and in the European Community", 25 *European Intellectual Property Review* 496.

[170] Regarding the distinction and the absence of unification in copyright law, see Ullrich H. (2004): "Harmony and Unity of European Intellectual Property Protection", in Vaver D. and Bently L., eds. (2004): *Intellectual Property in the New Millennium*, Cambridge University Press, New York, p. 20.

[171] See Drexl J. (2005), in Riesenhuber K., ed., *supra* note no. 162, sub I.2.

[172] The Commission's Online Recommendation, *supra* note no. 164, is based on Article 211 EC, since Article 151(5) EC excludes any binding harmonization and since Article 95 EC hardly allows the regulation of non-commercial aspects of the organization of collecting societies, such as solidarity rules, non-profit activities or the simple fairness of voting procedures, dispute settlement, etc.

necessity to take account of social and cultural objectives may be.[173] By contrast, in its Online Recommendation, the Commission again postulates rules of good governance for collecting societies.[174] Yet unlike patent pools, which, as such, are subject to control by competition authorities, the Commission has no means to impose such rules as a general matter of the good organization of collecting societies. Therefore, its recommendation may, in this respect, be softer than it is with respect to the principle of 'free' choice of Community-wide operating collecting societies.[175] In short, the Commission's Recommendation may have to be seen as an attempt to isolate and deregulate a newly developing segment of the larger market for copyright exploitation. However, that attempt must be assessed against both the existence of a broader, structurally imperfect market and the absence of sufficient power, or possibly of political will, to regulate it by way of harmonization with a view to its broader socio-economic dimensions.

3.3. Market power and exclusivity

It is true that the guiding principle for the examination of technology pools and of collecting societies under competition law is to allow an efficient use of intellectual property protection in individual, and if need be, in cooperative competition, and this tends to support the objectives and the operation of the system of protection as a framework regulation of innovative markets. By contrast, the control of the unilateral use of intellectual property rights by market-dominating enterprises on the basis of Article 82 EC has become the focal point of the debate on whether competition law may be relied on to correct or compensate for perceived or real 'excesses' of protection.[176]

[173] See Drexl J. (2005), in Riesenhuber K., ed., *supra* note no. 162, *passim,* notably II 1.b, VI.2; Gotzen F. (2005), *supra* note no. 163, at pp. 306 *et seq.*; the contribution of Frédéric Jenny in this volume, subs. B, C.

[174] Commission, Online Recommendation, *supra* note no. 164, at no. 13 lit b), 15, and recital 13.

[175] See *supra* note no. 163 as to the Commission's reliance on competition law as an indirect tool of 'enforcement' of the Recommendation.

[176] See Gallini N. and Trebilcock M. (1998): "Intellectual Property Rights and Competition Policy: A Framework for the Analysis of Economic and Legal Issues", in Anderson R. and Gallini N., eds., *Competition Policy and Intellectual Property Rights in the Knowledge-Based Economy*, University of Calgary Press, Calgary, at pp. 17, 24 *et seq.*; Peeperkorn L. (2003), *supra* note no. 65, at pp. 528 *et seq.* (2003); the contribution by Philip Lowe and Luc Peeperkorn in this volume, sub. C; Lévêque F. and Ménière Y. (2004), *supra* note no. 5, at pp. 85 *et seq.*; Mestmäcker E.-J. (2004), *supra* note no. 67, at pp. 269 *et seq.* Note that, under a welfare economics approach, correcting intellectual property protection by competition law may work both ways, i.e., it may also reinforce the effects of protection (and so it does as regards restrictive licensing—see references *supra* note no. 121). Note also that a 're-adjustment' limiting protection will essentially be made in the context of Article 82 EC, meaning only with respect to the operation of intellectual property on monopolistic markets. Thus, rather than correcting the system of protection, it will boil down to the narrow question of whether market-dominating enterprises may adhere to any practice that any enterprise acting in competition may adopt. See Case 102/77 *Hoffmann La Roche v. Centrafarm* [1978] ECR 1139, at no. 15 *et seq.* More recently, see also Case C-418/01 *IMS Health v. NDC Health* [2004] ECR I-5039, at no. 34.

Obviously, this debate does not concern all areas of the application of Article 82 EC where the alleged abuse is somehow related to or based on the exercise of the right to exclude others from the use of the protected subject matter. Rather, the focus is on situations in which the nature and limits of the exclusivity as a means of transforming intellectual subject matter from a public into a private good are re-determined by competition law, either generally or under the specific circumstances of particular cases. Therefore, a broad spectrum of possibly abusive conduct is irrelevant to the debate, such as: excessive or discriminatory pricing[177] of products or licences; the exercise of exclusive rights to directly or indirectly prevent legitimate parallel imports[178] or other forms of employing intellectual property rights in support of exclusionary cooperation schemes;[179] but also practices of tying or bundling licences as a means to foreclose markets to competing products;[180] and the restrictive acquisition[181] or grant of licences.[182] These types of conduct simply represent the counterparts, in the field of the exploitation of intellectual property, of the general types of abuse of market dominance. As such, they follow the rule that intellectual property is to be treated under the rules of competition just as any other form of property.[183]

The *genuine* issue is how far this latter principle may be carried into the domain of intellectual property when it comes to competition-law control over refusals to license. Such control implies that a market-dominating enterprise is subject to an obligation to share the very object of protection, i.e., the

[177] See Case 402/85 *G. Basset v. SACEM* [1987] 1747, at no. 18 *et seq.*; Case 238/87 *Volvo v. Veng* [1988] ECR 6211, at no. 9; Case 395/87 *Tournier* [1989] ECR 2521, at no. 34 *et seq.*; Joined Cases 110/88, 241/88 and 242/88 *Lucazeau v. SACEM* [1989] ECR 2811, at no. 21 *et seq.*; Case T-198/98 *Micro Leader Business v. Commission* [1999] ECR II-3989, at no. 53 *et seq.*

[178] See Case C-349/95 *Loendersloet v. Ballantine* [1997] ECR I-6227, at no. 43.

[179] See Case T-151/01 R *DSD v. Commission* [2001] ECR II-3295, indirectly confirming the decision of the Commission of 20 April 2001, case COMP D3/34493—*DSD*, OJ L 166 [2001].

[180] As regards the attempt to extend the effect of the exclusivity by using it as leverage for the sale of non-protected products, see Case C-53/92 P *Hilti v. Commission* [1994] ECR I-667, confirming the judgment in Case T-30/89 *Hilti v. Commission* [1991] ECR II-1439. Note that the case may also be read as one of a refusal to license. By contrast, see Case C-333/94 P *Tetra Pak v. Commission* [1996] ECR I-5951 (confirming the CFI judgment in Case T-83/91 *Tetra Pak v. Commission* [1994] ECR II-755, 817 *et seq.*), which was not a patent tying case at all. See Heinemann A. (2002), *supra* note no. 51, at pp. 477 *et seq.* Package licensing cases have not yet been brought before the Court except indirectly in the context of collective exploitation of copyright; even there, the users' complaint that they had to take a licence for the full musical repertoire was not addressed. See the *Tournier* and *Lucazeau* cases, *supra* note no. 177, and the confirmation of the Commission's refusal to investigate the practice by the CFI in Case T-114/92 *BEMIM v. Commission* [1995] ECR II-147, and Case 91/95 P *Tremblay v. Commission* [1996] ECR I-5547.

[181] See Case T-51/89 *Tetra Pak v. Commission* [1990] ECR II-309.

[182] *Tetra Pak Rausing v. Commission*, *supra* note no.181, stands for the principle that otherwise lawful licence restrictions may become unlawful if imposed by market-dominating enterprises. However, the principle was not applied *in concreto,* as the monopolist had changed its practice. For an example, see Brenning M. (2002): "Commission Closes Probe into IBM's Licensing Terms for Speech Recognition Engines", 3 *Competition Policy Newsletter* 57 .

[183] See *supra* text at n. 65 *et seq.*, and generally Heinemann A. (2002), *supra* note no. 51, at p. 494.

technology it has developed or the knowledge it has acquired at its own risk and costs, with third parties who may possibly be its competitors. What is at stake is therefore not only the incentive function of protection, but its very function as 'property', which makes it possible to determine the incentive by reference to market prices for the intellectual good or the products derived therefrom.[184] And yet, the control of refusals to license by virtue of competition law does not introduce a systemic anomaly. To the contrary, tangible property as well, although forming the substantive basis of contract autonomy, has always been subject to control on the basis of competition rules relating to refusals to supply.[185] Intellectual property need not constitute an exception unless it can be shown that, beyond adapting the control to its specific nature and objectives, these require, as a matter of principle, a particular immunity. It is this approach which prevails in Europe.[186] The reason in essence is that, in situations of market dominance, the assumptions upon which intellectual property protection is based, namely its use as an instrument of competition and the valuation of its subject matter according to competitive market prices, are by definition lacking, either totally or in large part. Accordingly, the debate revolves around the proper definition of the criteria of control, and on whether the Court of Justice[187] and the Commission[188]

[184] See *supra* text at note no. 65 *et seq.*

[185] See recently (and explicitly) BKartA of 9 February 2006, WuW DE-V 1177 at no. 86 *et seq.* (*Soda Club*).

[186] To this effect, see DG Competition Staff Discussion Paper on Article 82 EC, available at http://ec.europa.eu/comm/competition/antitrust/others/discpaper2005.pdf, at 9.2, 2.6.

[187] See Case 238/87 *Volvo v. Veng* [1988] ECR 6211, at no. 8 *et seq.* (confusing, however, refusal to license (at no. 8) and refusal to supply (at no. 9)); Cases C-241/91 P and C-242/91 P *RTE and ITP v. Commission* [1995] ECR I-743; Case C-418/01 *IMS Health v. NDC Health* [2004] ECR I-5039 (see also the related decision of the *Commission* of 3 July 2001, case COMP D3/38.044—*NDC Health/IMS Health*, OJ L 59 [2002]; and of 13 August 2003, same case—interim measures, OJ L 268 [2003]). Whereas both former cases relate to refusals to license by enterprises which generally refuse to license the subject matter at all, the judgment of the CFI in Case T-504/93 *Tiercé Ladbroke v. Commission* [1997] ECR II-923 concerned a refusal to license with respect only to a specific (territorial) market. However, the difference between the control of absolute and relative refusals to license is one of equity (since the dominant firm is required to open a business which it has not chosen and for which it may not be prepared) and of the qualification of the refusal (possibly discriminatory), rather than one of economic effects.

[188] See Commission decision of 24 March 2004, case COMP/C-3/37 792—*Microsoft*, not yet officially published (appearing in part in WuW EU-V 931), sub 5.3.1; Case T-201/2004 R *Microsoft v. Commission* [2004] ECR II-4463. The US and EU Microsoft cases have attained a popularity in the general press and in the legal literature that is commensurate with the popularity of Microsoft products but incommensurate with its legal significance. See only Heinemann A. (2005): "Compulsory Licenses and Product Integration in European Competition Law—Assessment of the European Commission's Microsoft Decision", 36 *IIC* 63; Montagnani M. (2006): "Predatory and Exclusionary Innovation; Which Legal Standard for Software Integration in the Context of the Competition versus Intellectual Property Rights Clash", 37 *IIC* 304, at pp. 314 *et seq.* (US cases), 324 *et seq.* (EU case); Takigawa T. (2005): "A Comparative Analysis of U.S., EU, and Japanese Microsoft Cases: How to Regulate Exclusionary Conduct by a Dominant Firm in a Network Industry", 50 *Antitrust Bulletin* 237; Monti M. (2004): "Article 82 EC Treaty and New Economy Markets", in Graham C. and Smith F., eds., *Competition, Regulation and the New Economy*, Oxford University Press, Oxford, at pp. 36 *et seq.*

have chosen the right ones and applied them correctly.[189] Aside from the basic distinction between horizontal and vertical market exclusion by refusals to license, practical criteria, such as whether the refusal is 'inside' or 'outside' the exclusivity,[190] and concepts of equity, such as whether the subject matter and the specific type of intellectual property are of high or low value/ quality,[191] rival with a systematic differentiation between a monopolist's entitlement to full protection against imitation and its exposure to a duty to license in the interest of substitute innovation.[192] The additional specifications of these or other approaches by the 'new product' rule,[193] an 'essential

[189] See the contributions of Josef Drexl, James Venit, Gustavo Ghidini (and Emanuela Arezzo) and Ian Forrester (subs. G, H) in this volume. See also, among the recent literature, Drexl J. (2004): "IMS Health and Trinko—Antitrust Placebo for Consumers Instead of Sound Economics in Refusal-to-Deal Cases", 35 *IIC* 788; Kallay D. (2004): *The Law and Economics of Antitrust and Intellectual Property*, Edward Elgar, Northhampton, pp. 118 *et seq. Contra: Geradin* D. (2004): "Limiting the Scope of Article 82 of the EC Treaty: What Can the EU Learn from the U.S. Supreme Court's Judgment in *Trinko* in the Wake of *Microsoft*, *IMS*, and *Deutsche Telekom*?", 41 *Common Market Law Review* 1519; Kanter D. (2006): "IP and Compulsory Licensing on Both Sides of the Atlantic—An Appropriate Antitrust Remedy or a Cutback on Innovation?", 28 *European Intellectual Property Review* 351. The non-English literature is rich as well. See only the German monographs by Käller A. (2004): *Die Verweigerung einer immaterialgüterrechtlich geschützten Leistung und das Mißbrauchsverbot des Article 82 EG*, Nomos, Baden-Baden 2004, *passim;* Bartmann J. (2005): *Grenzen der Monopolisierung durch Urheberrechte am Beispiel von Datenbanken und Computerprogrammen*, Carl Heymanns Verlag, Cologne, pp. 187 *et seq.* (comparing US law), 262 *et seq.*; Kübel, *loc. cit.*, at pp. 175 *et seq.*

[190] See the contribution by James *Venit* in this volume, sub. 2.1, thus pinpointing the critical nature of control over refusals to license by competition law.

[191] See the contribution by Ian Forrester in this volume, sub. H, and his oral presentation. This theme of the value of the IP also runs through the discussion in this volume (see interventions of Rochelle Dreyfuss, Thomas Vinje and Assimakis Komninos), and has been forcefully rejected by James Venit in his contribution to this volume, note no. 27 with references. It is indeed an old argument, which becomes more powerful when sharpened by reference to general principles of works qualifying for copyright protection (see Cohen J. (1997): "Zur 'Magill'-Entscheidung des Europäischen Gerichtshofs", *GRUR Int* 11, at pp. 14 *et seq.*) or by reference to the specific function of copyright protection (see Govaere I. (1996): *The Use and Abuse of Intellectual Property Rights in E.C. Law*, Sweet & Maxwell, London, at pp. 149 *et seq.*; and for the opposite conclusion, see Derclaye E. (2004): "Abuse of a Dominant Position and Intellectual Property Rights: A Suggestion to Reconcile The Community Court's Case Law", in Graham C. and Smith F., eds., *Competition, Regulation and the New Economy*, Oxford University Press, Oxford, at pp. 55, 65 *et seq.*), but it detracts from the issue (see Heinemann *A.* (2002), *supra* note no. 51, at pp. 485 *et seq.*, 491 *et seq.*). The issue is whether Article 82 EC may limit a monopolist's reliance on a statutorily defined exclusivity—after all, the legislator deliberately creates broad exclusivities for all kinds of subject matter—and it distorts the analysis from economics to equity (the programme listings in Magill were valuable for Magill, but also for the BBC!). Quite another matter is whether the structural conditions for creation and exploitation, and the economic specificities resulting therefrom, ought to be taken into consideration, as Rochelle Dreyfuss, in her written contribution for this volume, sub. C (see also her oral presentation) seems to suggest.

[192] See the contribution of Josef Drexl in this volume, *passim;* Drexl J. (2004), sup*r*a note no. 67, at pp. 805 *et seq.* (2004) (expanding on Ullrich H. (1997), in Immenga U. and Mestmäcker E.-J, eds., *EG-Wettbewerbsrecht*, 1st edition, Munich 1997, at pp. 1250 *et seq.*).

[193] See the contribution of James *Venit* in this volume, sub. 2.1 *et seq.*; Meinberg H. (2006): "From *Magill* to *IMS Health*: The New Product Requirement and the Diversity of Intellectual Property Rights", 28 *European Intellectual Property Review* 398 (who, however, misses the point: copyright has been transformed into an exclusivity protecting content, by allowing control of access; therefore it is now akin to, or really is, a technology right).

facility' analogy,[194] the coincidence with standardization,[195] the 'non-viable alternative' qualification[196] or a multiple-factor test,[197] do not seem to overcome the casuistic uncertainty.[198] Indeed, that uncertainty may never be overcome, although it may hopefully be reduced. Firstly, by its very nature, control over refusals to supply, while based on competition law, has strong regulatory aspects.[199] Typically, the dominant enterprise has no pro-competitive alternatives courses of action, there is no competition-controlled benchmark for the implementation of mandatory licensing, and monitoring of that implementation by competition authorities is burdensome and thus frequently inexistent or inefficient. Consequently, competition lawyers may reasonably hesitate to intervene at all. Secondly, there is a wide variety of ever-evolving views of the function of intellectual property in general, and of its different types and objectives. These views include 'instrumentalist', 'moralist' and 'constitutional' perceptions of protection,[200] and their indirect influence on the assessment is compounded by an equally wide variety of views on the objectives and operation of competition[201]—in respect of which

[194] See Heinemann A. (2002), *supra* note no. 51, at pp. 508 *et seq.*, with references. This explanation of the *Magill* case, appealing though it may be at first glance (*supra* note no. 187), is unsatisfactory because it does not grasp the dynamic dimension of competition.

[195] See BGH, *supra* note no. 54; Conde Gallego B. (2006): "Die Anwendung des Kartellrechtlichen Mißbrauchsverbots auf "unerlässliche" Immaterialgüterrechte im Lichte der IMS Health- and Standard-Spundfass-Urteile", *GRUR Int* 16; Kübel, *loc. cit.*, at pp. 270 *et seq.*

[196] In *IMS Health, supra* note no. 187, Advocate General Tizzano accepted the argument that customer participation in developing the protected subject matter had precluded them against accepting alternative offers, (see [2004] ECR I-5065 *et seq.*). This test is less strict than the essential facility condition (not reasonably duplicable), and different from the lock-in effect of network products, although the effects are the same (see Drexl J. (2004), *supra* note no. 67, at pp. 867 *et seq.*). In addition, it brings in considerations of equity (the copyright owner has 'monopolized' what has been created with the support of the customer!).

[197] See Commission, *supra* note no. 188, sub 5.3.1.1; 5.1.3.3; 5.3.1.4; the contribution of Ian Forrester in this volume, sub A.; Vezzoso S. (2006): "The Incentives Balance Test in the EU Microsoft Case: A More "Economics-Based" Approach", 27 *European Competition Law Review* 382.

[198] Some of the uneasiness about the Court's case law also results from the difficulties of defining relevant markets with respect to intellectual goods without undermining competition for the acquisition of the intellectual good in question or its substitutes in the first place. This is distinct from the issue of whether dynamic competition has been sufficiently taken into consideration. See Ullrich H. (1997), in Immenga U. and Mestmäcker E-J., eds., *EG-Wettbewerbsrecht*, Munich, at pp. 1251 *et seq.*

[199] See Monéger J. (2006): "Competition, Regulation and System Coherence", in Ullrich H., ed., *supra* note no. 14, at pp. 274, 279 *et seq.*; in the same volume, Nihoul P. (2006): "The Opposition between Competition and Regulation—Some Nuances", at pp. 300 *et seq.*

[200] See Drahos P. (1996): *A Philosophy of Intellectual Property*, Aldershot, Dartmouth, *passim*. More recently, see Carrier M. (2004): "Cabining Intellectual Property Through a Property Paradigm", 54 *Duke Law Journal* 1, at pp. 31 *et seq.* (2004); Geiger C. (2006): "'Constitutionalizing' Intellectual Property Law? The Influence of Fundamental Rights on Intellectual Property in the European Union", 37 *IIC* 371. As regards copyright *vis-à-vis* new technologies, see more particularly Dusollier S. (2005), *supra* note no. 8, at p. 216 and *passim*.

[201] As to the various concepts of dynamic competition alone, see Ellig J. and Lin D. (2001): "A Taxonomy of Dynamic Competition Theories", in Ellig J., ed., *Dynamic Competition and Public Policy: Technology, Innovation and Antitrust Issues*, Cambridge University Press, New York, pp. 16 *et seq.* As to the goals of competition policy, see the comparative presentations by

a particularly relevant aspect is the largely speculative determination of the proper short-term/long-term tradeoff between static and dynamic efficiency. Ultimately, therefore, decisions on refusals to license are a matter of perspective and of the framework of constitutional and socio-economic values within which the courts and administrative authorities implement the law by their decisions.[202] This explains the divergences of approach and of the results *across* jurisdictions, but it also dispels hope for consistency *within* jurisdictions. One-dimensional theoretical analysis, however well established, is incompatible with the multi-faced value aspects of the protection of both intellectual property and competition[203] in the extreme situation of market dominance, and such analysis is unconvincing as an approach to judging cases of such complex, circumstantial character. Courts rule accordingly and, as a result, differently.

4. *Industrial concentration, mergers and intellectual property*

4.1. An obsolete problem?

Since Article 82 EC prohibits only the abuse, and not the acquisition of market dominance, it may be relied upon to prevent dilatory practices whereby market-dominating firms seek to extend the existence or scope of protection beyond an intellectual property right's substance or prescribed time,[204] or to

Jones C. A. (2006): "Foundations of Competition Policy in the EU and USA: Conflict, Convergence and Beyond", in Ullrich H., ed., *supra* note no. 14, at pp. 17 *et seq.*; in the same volume, Roth W.-H., "Strategic Competition Policy: A Comment on EU Competition Policy", at pp. 38 *et seq.*; the contributions in Ehlermann C.-D. and Laudati L., eds. (1998): *European Competition Law Annual 1997: The Objectives of Competition Policy*, Hart Publishing, Oxford and Portland, Oregon. One illustration is the perception of what and how much respect a dominant enterprise has to pay to the preservation of residual competition. In the context of the matters discussed here, see Case T-83/91 *Tetra Pak v. Commission* [1994] ECR II-755, at nos. 115, 137, 139, 147.

[202] See the contribution by Gustavo Ghidini and Emanuela Arezzo in this volume, sub. E.

[203] Note only the many ambivalent—economic, equitable, political and psychological—connotations of competition 'on the merits', or of the incentive/reward assumptions underlying intellectual property protection, and of their reversal into a 'disincentive' by controlling refusals to supply. And note the difficulties of playing or—for that matter—analyzing the 'innovation lottery'. See Scherer F. (2001): "The Innovation Lottery", in Dreyfuss R., Zimmerman D. and First H., eds., *supra* note no. 34, at pp. 3 *et seq.*

[204] See Commission decision of 22 December 1987, case IV/30.787 and 31.488—*Eurofix—Bauco/Hilti*, OJ L 65 [1988], at no. 78, confirmed by the CFI in Case T-30/89 *Hilti v. Commission* [1991] ECR II-1439, at no. 99; Commission decision of 15 June 2005, case COMP/37.507, *Astra Zeneca*, no public version available, but see Commission, IP/05/737 of 15 June 2005: "Commission fines Astra Zeneca ? 60 million for misusing patent system to delay market entry of competing generic drug"; Fagerlund N. and Rasmussen S. (2005): "Astra Zeneca: The First Abuse Case in the Pharmaceutical Sector", 3 *Competition Policy Newsletter* 54; Hirsbrunner S. (2005): "Neues aus Brüssel zum Verhältnis von Patent- und Kartellrecht: die Astra Zeneca-Entscheidung der Europäischen Kommission", *EWS* 488; Gunther J.-P. and Breuvart C. (2005): "Misuse of Patent and Drug Regulatory Approval Systems in the Pharmaceutical Industry. An Analysis of US and EU Converging Approaches", 25 *European Competition Law Review* 669.

control harassment from competitors by issuing unwarranted threats of infringement actions. However, except in extreme cases of the suppression of all residual competition,[205] Article 82 EC may not be used to counter attempts of monopolization by the strategically conceived building-up of defensive intellectual property portfolios. Thus, the old debate on the effects of intellectual property on industrial concentration, which mainly concerned patents,[206] and more particularly the dangers of a slow down or the suppression of technological innovation through the accumulation of 'defensive', non-used patents[207] (as opposed to excessive claims for trademark protection[208]) has almost fallen into oblivion. However, the problem has not disappeared. To the contrary, in view of the extension of patent protection to ever more subject matter, and ever more upstream of the innovation process, the availability of protection at ever lower standards on a widening geographic scale, and the development of ever more refined patenting strategies in the pro-patent era,[209] as well as the structural failure of the patent system

[205] See Commission decision of 26 July 1988, case IV/31.043, *Tetra Pak I (BTG Licence)*, OJ L 272 [1988], at no. 45 *et seq.*, indirectly confirmed by the CFI in Case T-51/89 *Tetra Pak Rausing v. Commission* [1990] ECR II-309, at no. 23.

[206] See Ifo-Institut für Wirtschaftsforschung (1974) (Grefermann, Oppenländer *et al.*): *Patentwesen und technischer Fortschritt*, Teil I, Göttingen, 78 *et seq.*, 88 *et seq.*; Teil II Göttingen, 55 *et seq.*; Kaufer F. (1970), *supra* note no. 2, at pp. 144 *et seq.* (US law), 196 *et seq.*, Monopolkommission (1978): *Hauptgutachten 1976/1977*, Nomos, Baden-Baden, at pp. 361 *et seq.* The Monopolkommission investigated the problem again in 1981 but apparently came to no conclusions.

[207] See Cohen J. and Burke A. (1998): "An Overview of the Antitrust Analysis of Suppression of Technology", 66 *Antitrust Law Journal* 421, at pp. 428 *et seq.*, 432 *et seq.*; Chin Y. (1998): "Unilateral Technology Suppression: Appropriate Antitrust and Patent Law Remedies", 66 *Antitrust Law Journal* 441; Flynn J. (1998): "Antitrust Policy, Innovation Efficiencies, and the Suppression of Technology", 66 *Antitrust Law Journal* 487, at pp. 499 *et seq.* (1998); Merges R. (1998): "Antitrust Review of Patent Acquisitions: Property Rights, Firm Boundaries, and Organization", in Anderson R. and Gallini N., eds., *supra* note no. 176, at pp. 111, 126 *et seq.*; Pietzcke G. (1983): *Wettbewerbsbeschränkungen und Konzentration im Recht der Vereinigten Staaten von Amerika*, Carl Heymanns Verlag, Cologne, at pp. 45 *et seq.*, all with references to case law.

[208] But see the case of *OYAiram/Osram*, Bull. EC 1981 (12) 31; European Commission (1981): *XIth Report on Competition Policy*, at no. 97. Unlike in patent law, the non-use of trademarks is a privately enforceable cause of invalidation, but it is unclear how effective it is as a limit to trademark accumulation. By contrast, vigilant limitation of the availability or the scope of trademark protection for the shape or design of products as being either non-distinctive or required by technical function is important, even though such claims to overly broad protection do not necessarily exclude competition by substitutes. See Case T-119/2000 *Procter and Gamble v. OHIM* [2001] ECR II-2735, confirmed by Cases C-468/01 P to C-472/01 P *Procter and Gamble v. OHIM* [2004] I-5141; Case T-194/2001 *Unilever v. OHIM* [2003] ECR II-383; Case C-299/99 *Philips v. Remington* [2002] ECR I-5475; Cases C-53/01 to 55/01 *Linde et al.* [2003] ECR I-3161. A good example of the need to prevent foreclosure of competition on downstream markets by strictly controlling trademark accumulation across product-classes is presented by BGH of 27 April 2006, Cases I Z B 96/05 and I Z B 97/05—Fußball WM 2006, WM 2006.

[209] See Granstrand O. (1999): *The Economics and Management of Intellectual Property*, Cheltenham, London, pp. 209 *et seq.* (and see *id.* at pp. 148 *et seq.*, comparing Japanese patenting strategies); Harhoff D. and Reitzig M. (2001): "Strategien zur Gewinnmaximierung bei der Anmeldung von Patenten", 5 *Zeitschrift für Betriebswirtschaft* 509; Schulze M. (2003): "Patent-Portfoliomanagement in der Siemens AG", 3 *VPP-Rundbrief* 77.

to channel the (admittedly ambivalent[210]) trend, has become ever more worrying.[211] Nevertheless, if at all, it is perceived by the political public more as an issue to be dealt with *de lege lata,* as a matter of reinvigorating the proper functioning of the system of protection,[212] than as a concern of competition policy for control of the early stages or of the supportive practices individual firms may use in their efforts to position themselves in a recurrent oligopolization process.

4.2. Merger control

Part of the problem of industrial concentration through intellectual property protection may be addressed by merger control, albeit only indirectly and at a late stage, when the establishment of portfolios of industrial property reveals its value not just as a strategic asset in independent competition but also as an option for (cooperative or) concentrative partnering. This is not a very well explored area yet.[213] Merger control will examine the intellectual property portfolio of the parties to the merger, and possibly of third parties whose position on the market is affected by the merger, on at least three different accounts.[214] Firstly, the acquisition of intellectual property by assignment or licence from another enterprise may itself constitute a merger to the extent that it represents an essential part of the assets of an enterprise

[210] See Kortum S. and Lerner J. (1999): "What Is Behind the Recent Surge in Patenting", 28 *Research Policy* 1; Riordan B. (2000): "What's Driving Patent and Trade Mark Application Filings?", 22 *European Intellectual Property Review* 349; Moore K. (2005): "Worthless Patents", 20 *Berkley Technology Law Journal* 1521. Part of the ambivalence is due to the difficulties of *ex ante* evaluation and to the multiplicity of functions attached to patents other than its function as an incentive stimulating innovation (signalling effect, bargaining chip, identification of contribution in R&D cooperation, etc.). See Merges R. (1998), *supra* note no. 207, at pp. 117 *et seq.*

[211] See Federal Trade Commission (2003): *To Promote Innovation—The Proper Balance of Competition and Patent Law and Policy*, Washington D.C., Chapter 5; National Research Council (2004): *A Patent System for the 21st Century*, Washington D.C., 21 and *passim; Teknologi-Radet* (2005): *Recommendation for the Patent System of the Future*, Copenhagen, *passim.*

[212] See Commission, Consultation on "Future Patent Policy in Europe", Preliminary Findings: Issues for Debate (summary of stakeholders' views, available at the homepage of Commission, DG Internal Market/Industrial Property/Patents/Community Patent/Consultation Procedure). *Süddeutsche Zeitung* of 7 March 2006: "Sperrpatente bremsen deutsche Entwickler" (report on investigation of the operation of the patent system by the German Diet revealing that about half of all patent applications serve defensive purposes only).

[213] See the contributions in this volume of Deborah Platt Majoras, James Rill, Jochen Burrichter, Benoît Durand, Patrick Rey. See also Mackernan C. (2004): "Red Flags in the Trousseau: A Survey of the Competition Treatment of IP Assets in M&A", 26 *European Intellectual Property Review* 461; Bejcek J. (2005): "Mergers and New Technologies", 36 *IIC* 809.

[214] See the references *supra* note no. 214. On a sort of intermediate layer, IP-related ancillary restraints may be found. See Commission Notice on restrictions directly related and necessary to concentrations, subs. III B, IV B (OJ C 56 [2005]); the contribution of Jochen Burrichter in this volume, sub. C.2.5.

or an asset that allows control over another enterprise.[215] Secondly, ownership of intellectual property portfolios must be taken into consideration when ascertaining the market position of the parties before and after the merger[216] and when assessing the impact of the merger on competition. Both types of assessment clearly raise different issues for, on the one hand, copyright[217] or trademarks (which in general mirror the actual presence of a firm on the market[218]), and for patents and related rights on the other. Indeed, patents and related rights will only exceptionally (or in specific industries) be a sufficient means of identifying products as such. In general, they cover only certain aspects or components of products, though they may be important or characteristic ones,[219] or else they might cover the technology of the process of production or of parts of it. Accordingly, their importance—taken individually or as a portfolio protecting a smaller or larger piece of a technology—for a firm's market position or for the competitive process is difficult to evaluate, all the more so since, depending on where they are situated in the product innovation cycle, patents may mirror only past efforts of research and development and give some hope for innovation whose success depends on many factors. Therefore, with the exceptions mentioned, they are probably more relevant to the determination and evaluation of technology markets or of innovation markets than they are for product markets.[220]

Given the structural assessment of markets by merger control, intellectual property holdings by firms are typically assessed in terms of their actual commercial value or present economic potential, i.e., as elements of or proxies for more broadly defined technologies or products. In addition, accessibility by

[215] Sect. 37 para. 1 German GWB and Article 3 paras. 1, 2 of Council Regulation 139/2004 differ slightly in their definition of what constitutes a merger. See the contribution of Jochen Burrichter in this volume, sub B 1.1, 2.1.

[216] As regards the determination of market dominance for the purpose of Article 82 EC, see also, e.g., Case 85/76 *Hoffmann La Roche v. Commission* [1979] ECR 461, at no. 51; Case T-30/89 *Hilti v. Commission* [1991] ECR II-1439, at no. 93.

[217] Since copyright protection arises *ex lege* as the work is created, and since the work is the product that is offered as such on the market, copyright is identified by the products it covers (and vice versa). However, since the exclusivity is not tantamount to a monopoly, it is generally the ownership of an important repertoire which may be indicative of market dominance. See Commission decision of 11 October 2000, case COMP/M 1845- *AOL/Time Warner*, OJ L 268 [2001], at no.46 *et seq.*

[218] Of course, a trademark does *not* mirror market shares on relevant markets when the mark covers more than the relevant products, and it certainly does not reflect market dominance. Conversely, firms may hold trademarks in reserve which, due to their persistent reputation, may have considerable market potential (e.g., Audi and Maybach before their 'resurrection').

[219] This would be the case in particular where a patent is 'essential' for standardized products (see *supra* sub. 3.1), even if standardization by itself does not exclude competition on price, quality or other product characteristics.

[220] See the contribution of Deborah Platt Majoras in this volume, sub. A; De Santi S. and Cohen M. (2005): "Competition to Innovate: Strategies for Proper Antitrust Assessments", in Dreyfuss R., Zimmerman D. and First H., eds., *supra* note no. 34, at pp. 317, 327 *et seq.*; the contribution of Benoît Durand in this volume, sub. C.2; Ullrich H. (1999): "Antitrust Law Relating to High Technology Industries—A Case for or against International Rules?", in Zäch R., ed., *Towards WTO Competition Rules*, Staempfli, Berne, 261, at pp. 277 *et seq.*

other parties through efforts of their own or through actually available licences is taken into account. To this extent, the right to exclude third parties is implicitly accepted as a characteristic of ownership. Normally, however, neither the legal conditions of its acquisition nor the defensive use or actual non-use that is made of it, i.e., its non-active or deterrent aspects, are investigated, even though they are not only behavioural but also structural in nature.

A similar view on intellectual property prevails at the level of remedies, which is the third level on which merger control analysis may focus on intellectual property.[221] The transfer or licensing of intellectual property may be a way to escape the prohibition of the merger, but only if it definitely nullifies its anticompetitive elements. This will be the case more often for 'active' than for 'non-active' intellectual property-based assets. Put differently, merger control is more concerned with the pro-competitive effects of intellectual property, and with preserving them beyond the merger, than with its anticompetitive potential. Arguably, Article 82 EC may be relied upon when this anticompetitive potential is actually put into effect. However, as already noted, such control is neither particularly likely nor particularly helpful. The problem, if there is one, is the potential for dissuasion. It creates a disincentive to enter into (closer) competition.

Outlook

In the Community, the interaction of competition law and intellectual property law is under the influence of both the recent reformulation of the policy underlying the implementation and enforcement of the rules on competition and the expansion and reinforcement of intellectual property protection. Given the broad practical importance of Article 81 EC, and therefore of the Commission's economics-based approach of promoting efficiencies in the contractual exploitation of intellectual property almost regardless of market power, and given also the 'marginality' of the cases to which Article 82 EC applies, and the limited, mostly merely indirect relevance of merger control, it would appear that, for the most part, competition policy supports the objectives and the operation of intellectual property, corrects it only at the margins, and for the rest leaves it alone with its problems. As such, this is less a negative conclusion than a working hypothesis. On the one hand, it must be seen against the backdrop of the limitations and the liberalization of intellectual property by the Community's free trade principles, which have not been exam-

[221] See the contributions in this volume of Deborah Platt Majoras (sub. B), Jochen Burrichter (sub. D) and Benoît Durand (sub. D).

ined here[222] or during the Workshop.[223] Economically speaking, however, they have made the Internal Market the market of reference for the exploitation of intellectual property, and politically speaking, they have made teleological assessment prevail over respect of form. This latter 'essentialism' has paved the way for a more policy-oriented interaction of competition law and intellectual property law. On the other hand, the direction which this policy orientation has actually taken in the Community might improve the prospects for some self-improvement of intellectual property protection, meaning a redefinition and refinement of its configuration and operation in view of technological change[224] and of the complexity of its socioeconomic function, of which public awareness constantly increases.[225] When discussing technology pools or the collective exploitation of copyright, this overview only slightly touched upon the fact that there are more interests involved in the interaction of competition law and intellectual property law than those of just competition and industrial policy. They cannot be controlled by these policies alone. In fact, it is easy enough to find other areas where the interface between competition law and intellectual property law is really multi-faced.[226] Thus, more of a multiple-interest analysis may be needed in the future.

[222] For a detailed analysis, see Ullrich H., in Immenga U. and Mestmäcker E.J., eds., *EG-Wettbewerbsrecht*, 2nd edition (forthcoming, Munich 2006) sub. Immaterialgüterrecht, Part A. The liberalizing effects of the application of free trade principles to intellectual property are frequently overlooked, but are fairly obvious as regards, e.g., the limitation of the domestic manufacturing requirement for patents, the recognition of specific protection of reputed trademarks in parallel import and related cases, the non-recognition of exhaustion in cases of the exploitation of copyright in intangible form, etc.

[223] But see the contribution of James Venit in this volume, sub. A.

[224] The repercussions which the impact of technological change on intellectual property may produce in competition law still need to be explored. See Arlt C. (2005): "Marktabschottend wirkender Einsatz von DRM-Technik—Eine Untersuchung aus wettbewerbsrechtlichem Blickwinkel", *GRUR Int* 1003; Ciro T. and Fox M. (2006): "Competition v. Copyright in the Digital Age", 28 *European Intellectual Property Review* 329; Burk D. (2004): "DNA Rules: Legal and Conceptual Implications of Biological 'Lock-Out' Systems", 92 *California Law Review* 1553.

[225] See *supra* notes nos. 211, 212. The discussion in the academic literature has become very rich. See only Boyle J. (2003): "The Second Enclosure Movement and the Construction of the Public Domain", 66 *Law and Contemporary Problems* 33; Carrier M. (2004), *supra* note no. 200; Dusollier S. (2005), *supra* note no. 169, at p. 330 and *passim;* Godt C. (2006*): Eigentum an Information—Patentschutz und allgemeine Eigentumstheorie am Beispiel genetischer Information*, Mohr Siebeck, Tübingen; the contributions in Hilty R. and Peukert A. (2004): *Interessensausgleich im Urheberrecht*, Nomos, Baden-Baden; Maskus K. and Reichman J. (2005): "Private Knowledge Goods and the Privatisation of Global Public Goods", in Maskus K. and Reichman J., eds., *supra* note no. 121, pp. 3 *et seq.* (and most of the contributions in the same volume). One need not sympathize with all of the criticism to recognize that it has become a movement.

[226] Copyright, competition and free information or speech; biotechnological patents, pools, reach-through licences and freedom of research; pharmaceutical patents, parallel imports and health care are but a few catchwords designating areas of multiple-interest conflicts. For such an approach, see Cottier T., "The Doha Waiver and its Effects on the Nature of the TRIPs system and on Competition Law: The Impact of Human Rights", text available at HYPERLINK "http://www.nccr-trade.org/" http://www.nccr-trade.org/; and the comment by Godt C. in Govaere I. and Ullrich H., eds., *Intellectual Property, International Trade, and the Public Interest* (forthcoming, Frankfurt 2006).

SESSION ONE

GENERAL ASPECTS

1

PANEL DISCUSSION

Participants:

Alden Abbott
Allan Fels
Assimakis Komninos
Calvin Goldman
Claus-Dieter Ehlermann
Deborah Platt Majoras
Douglas Melamed
Eleanor Fox
Gustavo Ghidini
Hanns Ullrich
Hewitt Pate
Ian Forrester
James Venit
Jochen Burrichter
John Fingleton
Josef Drexl
Lars Kjøelbye
Luc Peeperkorn
Mario Siragusa
Peter Plompen
Rochelle Dreyfuss
Simon Bishop
Steven Anderman
Thomas Vinje

Sesssion I: General Aspects

Panel I: To What Extent Does IP Require/Justify A Special Treatment Under Competition Rules?

► John Fingleton—The EU Competition Law and Policy Workshop held at the EUI in Florence brings together specialists from the private and public sector, legal practitioners and economists, international academics and policy-makers, to discuss topical issues of EC competition policy. This is the 10th edition of this Workshop—some of the participants referred to a "10-year milestone", which, by the way, also happens to be half of the lifespan of a patent. . . The main question we will address in the first Session is whether intellectual property (IP) is like any other type of property, or should instead receive a special treatment under competition rules.

► Hewitt Pate—I will talk about whether IP is different from other types of property, and how this relates to an issue that comes across many of the written contributions prepared for this Workshop, which is unilateral refusal to license IP—an issue that is of interest in *IMS Health,* and obviously will also be in the *Microsoft* appeal.

On the first question, my main point is that not much has changed over the past 10 years since Douglas Melamed and his colleagues drafted the 1995 Guidelines on IP Licensing of the FTC and DOJ. Basically, IP is like any other property, but not in all respects. IP is perhaps more than other types of property characterised by up-front development costs and ease of duplication at the back end, and the list of distinctive features could be continued. However, I am basically in agreement with Douglas Melamed, in that this should not necessarily lead us to the conclusion that IP should be treated for the purposes of antitrust enforcement different than other property. Interestingly, when this debate started in the US, in the 1980s, the issues was formulated rather in terms of "IP should not be treated as second-class property". This occurred as we moved out of the "nine no-no's" period, when the DOJ had a special section devoted to IP licensing. In the meantime, we arrived to the position that IP is clearly like other property. Nowadays in the US we are looking at this issue from a different perspective: IP is like any other property in the sense that it should not enjoy any special privileges, and in fact it should not be exempt from antitrust scrutiny. The ruling of the US Court of Appeals for the D.C. Circuit in *Microsoft*[1] is probably the most representative in this sense, as it implied that the holding of an IP right in the course of anticompetitive conduct is not going to be held as a sort of talisman against the application of antitrust rules.

[1] *United States v. Microsoft*, 253 F.3d 34, 63 (D.C. Cir. 2001).

I will refer next to the US stand on unilateral refusal to deal in the area of IP rights. I think this is an area where in the US we do have a clear and categorical standpoint, and this distinguishes us from the state of play in the EU. The US position is that, because we think that IP is basically no different from other property, and because our antitrust law in general admits there are circumstances where we can impose a duty to deal, then even in the case of a unilateral and unconditional refusal to license some sort of patent, liability can be found under US law. I think that this position is difficult to hold after *Trinko*[2] (and Prof. Fox addressed this argument in her written contribution for this Workshop). *Trinko* was not an IP case, but a case about refusal to assist competitors. The question raised by this case was whether new exemptions could be found to the already reduced set of circumstances in which a requirement to assist competitors will be found justified. If you look at the cases where our Supreme Court stated that a fundamental right inherent in a patent is the right to decide whether to license it or not, and antitrust law does not change that, you see that the Supreme Court has never directly made a point on this precise issue, but lower US courts have done so. I think it is fair to predict that refusal to license is not going to be the exclusive basis for establishing liability. The question that arises is how to detect when there is more than a mere refusal to license. This is a point that Prof. Fox takes up with respect to *Trinko*. (I am not sure that I agree with the suggestion that in *Trinko* there was more going on, but we may discuss this later on.) But this question is very important in Europe: the *Volvo* judgment[3] and others indicate that the simple refusal to license is not going to produce liability.

Thus, it is important to distinguish between cases where there has been an anticompetitive course of conduct, and the patent is used simply to ward off antitrust enforcement, and cases where there is simply a decision to hold on to the IP. Then, in Europe there is also a question of whether the rules on duty to license have to do with the strength of the IP right. This is a point that Ian Forrester has developed in a number of contexts. It clearly has a good deal of descriptive power, in the sense that in *IMS Health*,[4] for example, the IP right is one that would strike both Europeans and Americans as being extremely weak—maybe that explains the situation. On the other hand, James Venit argues in his written contribution that this cannot be considered conclusive case law, especially in light of the Commission's *Microsoft* decision,[5] so the question remains open.

Next: is leveraging—or the possibility that a new product will be precluded by the refusal to license—enough to establish antitrust liability? On this point,

[2] *Verizon Communications v. Law Offices of Curtis V. Trinko*, 124 US 872 (2004).

[3] Case 238/87 *AB Volvo v. Erik Veng (UK) Ltd.* [1988] ECR 6211.

[4] Case T-184/01 R *IMS Health Inc. v. Commission* [2001] ECR II-03193; Case C-481/01 *NDC Health v. IMS Health and Commission* [2002] ECR I-03401.

[5] Commission Decision C(2004) 900 final of 24 March 2004 relating to a proceeding under Article 82 EC (Case COMP/C-3/37.792—*Microsoft*), web version of decision (non-confidential information) available at http://europa.eu.int/comm/competition/antitrust/cases/decisions/37792/en.pdf.

James Venit argues that, in some sense, US law is less strict than EU law, because the former does not impose a leveraging requirement. My argument is that we do not have the potential for establishing this sort of liability at all, so I think I disagree with James Venit on this point. By the same token, while I think the novelty requirement is important in EU law, I would not argue that EU law is stricter than the US one on this ground, because if there is no recognition of a right at all, it is harder to be stricter than that.

To sum up, I think that Prof. Fox asked the right question, which is, how do we know whether we are going to get a net increase in innovation or consumer welfare by antitrust intervention? My own question is whether we, as antitrust enforcers, are in a good position to answer to this question. My personal belief is that bureaucrats are not in the best position to decide on whether innovation will be enhanced or hampered in specific cases. In previous conferences on the interface between antitrust and IP law, I made this very same point under the suggestive phrasing of "Stop us [i.e., the antitrust enforcers] before we kill again". In the US, antitrust enforcers used to be very hostile to IP rights, thinking that the IP system was clogging innovation and harming competition. Many US academics and representatives of the US business community suggested that the US patent system has problems: too many patents are being granted, and some maybe on the wrong subject. The FTC has issued a very useful Report on this topic.[6] The EU still has to decide on whether and what sort of unified IP rights system it wants. Maybe that is a better target to focus energies on, rather than thinking that antitrust enforcement is a good tool for correcting IP problems.

► Ian Forrester—First, some preliminary remarks. IP laws in Europe, the US and elsewhere, are designed by legislatures, and competition authorities have an important role to play in shaping them. I believe that DG Competition played an important advocacy role in the drafting of European IP rules. In previous years, European legislation was more a matter for men in grey suits, but recently it has become more representative, more parliamentary. At any rate, European IP rules have gone through some kind of "competition law polishing". That certainly does not confer immunity from the application of EC competition rules, but it does explain the title of my written contribution for this Workshop, which suggests that IP and competition law constrain each other. Nowadays in the European legislative process there is an increasing ferocity between IP and competition sustainers, as if the two were entirely opposed to each other.

This brings me to my second remark: everyone finds it very easy to say that innovation and IP rights are great, but ritual incantations will not take us very far. There are four written contributions for this Workshop arguing by and

[6] FTC (2003): *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*, text available at http://www.ftc.gov/os/2003/10/innovationrpt.pdf.

large that IP and antitrust laws are basically pursuing the same goal. But what do we do when the use of IP rights has an effect on competition? It is also too easy to say that the IP right holder is infringing competition, abusing a dominant position, etc.

Third remark: both European and US antitrust law enforcers are a bit ashamed of their past. Yet any enforcer is inevitably going to be hugely wrong at one time. The big problem is not what to do about Article 81 EC, but what to do about Article 82 EC. The US position on abuse of dominance is clear: if you are a complainant, you lose, but you might win if you overturn the law. For example, in the *Bonito Boats* case,[7] based on antitrust law the outcomes would have been the same as in Europe, but the case was decided upon IP law. The European position is that, if a complainant is the victim of an anticompetitive use of an IP right, *usually* he loses—Ladbroke lost,[8] and Veng lost.[9] In other words, just because you want it does not mean you will get it. Ladbroke in particular lost because he did not really need it. In *IMS Health,*[10] the Commission applied this reasoning in the converse: where you really need it in order to compete, you are entitled to a compulsory licence. (I always thought that *IMS Health* was a standard case, and not truly a compulsory licence case, because the result in both *IMS Health* and *Magill*[11] could have been achieved quite easily by a different route.)

So, where is the limiting principle? I will offer four tests for examining the suitability of the criteria for examining the legality of refusals to license. First of all, the criteria have to be universally applicable to all dominant players—this is a question of equal justice. Second, the criteria have to be reasonably predictable by the dominant players. Third, their enforcement must be open to judicial review. (Like other people around this table, in the 1980s I spent huge amounts of time losing antidumping cases. The European Court refused to get involved, because it is terribly difficult to review the relevant policy decisions.) Fourth, the criteria must promote, and not hinder, the innovation and creativity that IP rights are meant to honour.

All this is easy to say and difficult to apply. Can we say that, by taking away the benefits of an IP right, this will make the owner try harder to innovate? This is one of the considerations in the *Microsoft* case too. This is, I might say, similar to a "horticultural" approach to innovation: if you prune your roses every spring, you get better flowers. It is a theory, although not one with which I would agree. In the *IMS Health* decision we are offered four criteria for deciding whether a refusal to license is justified or not. The novelty element, indispensability, total foreclosure of competition, and objective justifi-

[7] *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 US 141 (1989).

[8] Case T-504/93 *Tiercé Ladbroke SA v. Commission* [1997] ECR II-0923.

[9] *Supra* n. 3.

[10] *Supra* n. 4.

[11] Joined Cases C-241/91 P and C-242/91 P *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v. Commission* (*Magill*) [1995] ECR I-0743.

cation. And there I see an opportunity for the IP right holder to argue that, even if there is total foreclosure, and even if access is indispensable, and even if the complainant is going to make a new product, there could be a reasonable justification for refusal to license based on what was achieved and the effort expended. In other words, this criterion allows taking into account the quality of the effort underlying innovation. I find these criteria satisfactory for their purpose.

To sum up, we all say that in principle there is no conflict between IP and antitrust, but we all know there is a huge conflict in practice, at least in certain cases. In Europe the big controversies are related to copyright matters, where there is diversity of circumstances and of interpretation. It is no coincidence that EC law started from a flaky IP right in *Magill* and continued with an equally flaky IP right in *IMS Health.* This is what I call one-star material covered by a one-star IP right. But what about five-star technology protected by a five-star IP right? I will conclude with the provocative suggestion that, as to five-star innovation, maybe the European law is still behind the levels of *Volvo v. Veng* and *Magill,* whereas in the US context, when the innovation is highly valuable, based on a considerable effort, and protected by an IP right, it would not be touched.

► John Fingleton—Your "horticultural approach" metaphor made me think about the problem of having a eucalyptus tree in your garden: it kills everything else because it drinks off their water. Maybe the Commission has eucalyptus trees, rather than roses, in mind, when it thinks about gardening. . .

► Philip Lowe—There seems to be a good degree of consensus about how IP and antitrust law should correlate, but when we get down to the analysis of individual cases, we come up against some very difficult decisions. At the abstract level, IP law aims to promote the process of innovation, and this must be good for consumers (though of course, at the time when borders still existed in Europe, the concept of consumer welfare did not have quite the same equity implications that it might have today). IP law obliges the innovators to use their inventions, and inventors do want their inventions to be used, but of course at the same time they want a reward for their work. If we stifle the rewards for innovation through the rigid application of other rules, we eventually go against the ultimate goal of competition policy, which is to maximise consumer welfare through a wider range and variety of consumer goods and through attractive prices.

At this level of generality, I do not see any major difference between the US and EU jurisdictions. Now, have we struck the right balance between competition and IP law? It is not obvious that we have managed to do so, at least in some specific areas—and I refer in particular to discussions on the biotechnology industry taking place at the OECD.[12] IP law helps to defend incentives to innovate, allows the inventor to reap the benefits of its own invention, and to go to court to defend himself against free riding. This is positive for the innovative process. At the same time, IP law may be abused in the commercial interest of those who hold an IP right. For instance, although nowadays the lifecycle for most products is dramatically reduced, the duration of patents has increased considerably (generally 20 years for patents, and 70 years after the death of the author for copyrights). So we should be cautious about immediately assuming that IP rights have always been extended in the most effective way.

Should competition law be the instrument for correcting imbalances within the IP system? Our position is that the faults of the IP system should be corrected mainly through courts and the legislative process. There is though scope for the application of competition law in scrutinizing the exploitation of IP rights, and there are problems connected, for example, with patent thickets, which can be overcome by allowing pro-competitive cross-licensing. A number of these issues are addressed in our Technology Transfer Block Exemption Regulation (TTBER), which is quite similar to the US law on these aspects.

Before we look at individual cases, the broad question is whether competition law should apply a special treatment to particularly innovative sectors. Certainly, the competition agencies need to become knowledgeable about the specificities of the sectors to which the law is applied; then we need to ensure that the competition analysis does not concentrate on short-term factors, which tend to hide that there is usually a dynamic vulnerability of most companies to technology developments. In those situations, there are arguments for accepting that, for a short period, it is necessary for firms to have predictable protection of their rights, precisely because in the medium-to-longer term they are going to be threatened by technological changes. Yet this does not necessarily mean that we need to apply a distinct legal framework to these sectors. In fact, looking at issues of market power is something that competition agencies always do when dealing with licensing cases in general. We do not need a different approach in the area of IP, but we do need to take into account certain specificities of the sectors involved.

The question remains: how to extract some practical conclusions from these general principles?—how to explain that we have such strong views in specific individual cases? In the *Microsoft* case, we required Microsoft to disclose to other competitors the information necessary to ensure interoperability of their products—actually a requirement quite similar to the one resulting from the US consent decree seeking to ensure interoperability between PCs and servers. How come, even in different legal contexts, we all agree that, fun-

[12] See OECD Policy Brief of June 2005: *Intellectual Property and Competition Policy in the Biotechnology Industry*, available at http://www.oecd.org/dataoecd/36/4/35040373.pdf.

damentally, there is a problem there? From our point of view, there is a need for interoperability in fast-moving IT sectors, and I think the US stand is quite similar on this issue. We all see IT interoperability as a major driver for innovation. *Magill* was also about a new product in a fast-moving industry. Our concern there was to find a way through which the process of innovation could be allowed to continue without penalising those who made efforts to innovate in the past. Now, does this automatically imply compulsory licensing? I am not sure of that. Certainly, there are cases where the patent covers information which should not be covered, but also, there are plenty of areas where what is regarded as a trade secret and looks like hard IP can nevertheless be disclosed to deliver the information necessary for dynamic competition to take place.

► Gustavo Ghidini—Some preliminary remarks: first, we should not focus exclusively on the relationship between IP and antitrust laws, but also take into account the rules against unfair competition.

Second, I would not talk about IP rights in general—we need to take into account the intrinsic specificities of each IP area, which go well beyond the duration of the rights. For instance, in the EU there is a cross-licensing mechanism applicable in the case of high-profile subsequent innovation working on the shoulders of an earlier innovation, which grants to the derivative innovation access to the previous patent, and vice versa. This mechanism is also envisaged by Article 31(l) of the TRIPS agreement, but as far as I know, it is not applicable in the US. Now, it is obvious that such differences cannot be ignored when debating a possible antitrust intervention in the exercise of a specific IP right. For instance, in the case of a derivative innovation developed upon a previous patent, under the European approach there might be no need for antitrust intervention. On the other hand, antitrust intervention might be the only key for offering third parties access to an innovation developed under a copyright regime, which never gives a green light under a sort of compulsory licensing approach to derivative innovation.

Second, it seems to be assumed that the application of antitrust rules against IP right holders, in particular under an essential facility doctrine perspective, whereby the holder's entitlement shifts in exceptional circumstances from property to liability in favour of other bottleneck third parties, deprives the IP rights of their essential function as a stimulus of innovation. I personally question this assumption. First of all, the incentive function of the IP right is built on the guarantee against free riding on the specific innovation developed by the right holder, and not on the protection of the right holder's market power. Specifically, patents attribute a set of exclusive rights solely on the exploitation of a certain technical solution to a specific problem. They only institute what we might define as a "micro-monopoly", which does not extend to the market defined by the function's usefulness, even if at the moment when the patent is released it covers the only conceivable technical solution. European patent regulation is built on this principle. The joint consideration of Articles 30 and 31 in the TRIPS Agreement confirms that patents are not deprived of their function if in limited circumstances specific third parties, otherwise bottleneck-derivative innovators—as in the case of Article 31(l) TRIPS—are granted paying access to the IP right. Now, if this is true within the patent paradigm itself, I can see no argument for crying "wolf!" if, under exceptional circumstances such as the ones envisioned under the essential facility doctrine by the European Commission and Courts, bottleneck competitors may be granted paying access to the IP right. This seems consistent also with the other principle expressed by the TRIPS Agreement, which specifically envisions the possibility that, whenever Member States so allow, limitations to the exclusive rights can be permitted "to remedy a practice determined after judicial or administrative process to be anticompetitive". Thus, even if in the perspective of Article 31(k) TRIPS, antitrust interference is not aimed towards IP rights as such, but rather to an entire market situation grown around an IP right, where the IP right owner has been capable of turning to its own advantage market factors and external, even fortuitous, circumstances, all combined with the IP right in such a way as to raise barriers to entry and foreclose the market. In these exceptional circumstances, where all these factors taken together impede the realistic perspective of alternatives for competitors and consumers, antitrust intervention restores equilibrium by bringing back the IP right to its micro-monopoly function, and forbidding it to serve as a means of achieving a monopoly on the whole market.

Third, even under a purely economic perspective, I question the frequently-circulated idea that shifting the focus of IP entitlement from property to liability would represent a solution to the problem that does not affect the incentive function of IP rights. Third parties paying a reasonable royalty to the IP right holder in order to obtain access to a certain technology cannot be equated to free riders. The latter do not pay anything, of course. Moreover, as Prof. William J. Baumol pointed out in his recent book on innovation,[13] licensing can be a valuable source of revenue, of profits even equal or superior to the ones deriving from direct sales by the IP right holder. At the same time, paying access based on a truly competitive compensation preserves for the IP holder its competitive advantage, as Baumol explains, because licensees need a consistent amount of time—approximately from 6 months up to 1 year—to understand how to work properly with the new technology, and thus licensors retain a legal tie that they can exploit in various competitive ways.

[13] William J. Baumol (2002): *The Free Market Innovation Machine—Analyzing The Growth Miracle of Capitalism*, Princeton University Press.

Finally, antitrust intervention is welcome when there is real foreclosure on the whole product market, and therefore the IP right ends up by granting to the holder something that the latter was not entitled to. Nevertheless, the cost of antitrust litigation is extremely high, and therefore very often the damaged parties, who are presumably weaker, cannot easily afford to sue IP right holders. One should not forget that antitrust intervention would be less necessary if either IP laws were better shaped to promote derivative innovation—I again refer to Article 31(l) in the TRIPS Agreement—or simply were better interpreted and applied in such a way to strengthen the pro-competitive profiles already present in the European paradigm. Take, for example, patents for implementing computer innovation: here, a disclosure duty which allows keeping the source codes would alter the intrinsic classical balance of the system, because an exclusive right is granted without enriching the public knowledge.

On the issue of IP and unfair competition, I would emphasize that rules against unfair competition should not be applied as a prosthesis of the IP rights—for instance, to substantially extend, maybe under a passing off rationale, the duration of an expired design patent, or to expand, under a misappropriation rationale, the scope of protraction to functional elements such as arrangements of internal parts of a machine that were not claimed by the patentee. The subordinate role of unfair competition rules has long been dominant in continental Europe, under an intrinsic corporatist and protectionist bias, but this position must be rejected in the light of the EU constitutional ranking of free competition objectives. A British judge once said that there is no tort in taking a man's market or customers: neither the market nor the customers are for the plaintiffs to own, and there is no tort of making use of other good will as such. This expresses well the relationship between IP and unfair competition law.

► ROCHELLE DREYFUSS—I am the only IP lawyer on this Panel, so forgive me if I am not as "fluent" as the rest of you on antitrust matters. I configured my intervention around the question of whether IP is still like other types of property. We have heard before about the move in the US from the "nine no-no's" to a rule of reason approach in antitrust enforcement in the IP area. The first reason is that nowadays we have a more "economic" perspective on licensing strategies: the parties are seen as rational actors striving to achieve efficiencies. Second, and perhaps more important, we now have the view that patents and copyrights are not in fact true monopolies. They are exclusive rights, but within limits: copyright protects only against copying, so you can always create your own work in another way; patents protect against free riding on the invention, but you can still invent around the patented application and end up with near substitutes. The substitutes constrain the right holder's ability to set high prices or to limit output, so, once proven as available, we saw less need to intervene through competition law—which moved towards a more rule of reason approach. Lately, however, I think we see something quite new in the IP area: unique works, and works that make themselves unique—works that everyone in a particular field must use. Without the market discipline imposed by near substitutes, the issue of the relationship between IP and competition law needs to be re-examined.

I will comment on three aspects: first, what do we mean by "unique works"? Second, there seems to be an assumption that, whenever there is a problem, IP law should solve it, so I would like to spend some time explaining why IP law cannot really quite do that. Third, I would like to talk about what I would like to see from competition law enforcement.

"Unique works" are seen nowadays only in the field of biotechnology, although I think they will also be seen in other fields in the future. Here the traditional line that differentiated between ideas and their application was blurred. That line was drawn by the patent law requirement according to which only things made by man were patentable, whereas products of nature and fundamental principles were in the public domain. Further on, the line was protected by the utility requirement, which drew a distinction between utility for consumers—where you could have patents—and utility for researchers, where you could not have patents. These requirements no longer work as in the past. For example, genes or proteins are products of nature, but to sequence them, or to find their structure, you need to create a synthetic versions. Since the man-made structure is not a product of nature, gene sequences and protein structures pass the subject matter requirement. Furthermore, because it is possible to associate a gene sequence or a protein with some phenomena in the body, like a disease, they also pass the utility requirement, and thus can be patented. Once that patent is issued, the patentee has rights not only over the use recited in the patent—for example, as a diagnostic—but also over all other possible uses, and each gene and protein can have many uses. We only have around 30,000 genes in our body, and this means that each gene controls several functions in the organism. Genes and proteins cannot be invented around. If you want to exploit the functions of a particular gene or protein in the body, you need access to that particular gene or protein, which, as such, is a unique product. Myriad Pharmaceuticals holds patents related to the BRCA1 and 2 genes, which control many breast cancers, and thus puts itself at the centre of all breast cancer work. Its refusal to license affects doctors and labs who want to test patients, laboratory researchers who want to perfect the tests, doctors who want to provide second opinions, medical researchers who want to study other kinds of breast cancer. BRCA1 and 2 surely are unique products: there is simply no way of inventing around them, so licensing is in no way disciplined by market forces.

In their turn, works that make themselves unique can generate the same kind of problems. This is often an issue for copyrightable works. In these cases there are many ways to create an equivalent product, but once one version comes into existence, circumstances dictate that it alone can be utilized. The problem arises for standard-setting organizations, government decisions to use some copyrighted material that everyone needs, or most often through market forces—for example, Microsoft's operating system, where everyone needs Microsoft's interfaces in order to work with the network system.

One could argue that, even if patents and copyrights are monopolies, we are still dealing with rational actors who license the opportunities that they do not want to exploit themselves. Unfortunately, that turns out not to always be the case. Rationality is bounded by informational capacity and intellectual capacity. Unique works are often, like genes and proteins, far upstream, or, like Windows, complex systems they include many component parts. It is difficult for the right holder to conceive or evaluate all potential perspectives, particularly those that are removed from its own zone of expertise. Potential users may not have the experience and knowledge required to find potential uses, and they also worry that if they sink resources into exploring possibilities they might find themselves in a difficult bargaining position. Furthermore, even rational right holders may have incentives not to explore possibilities efficiently. They may refuse to license patent rights to those in a position to develop superseding inventions, or patent the sequential invention, so they might want to invent up the quality ladder rather than cannibalize their own products. In any event, there is a mounting casual empiricism showing that rights over unique products are inefficiently put at use. There are lots of example in this sense: I already mentioned Myriad, and there is currently a case before the US Supreme Court where a right holder is blocking someone from just doing the experiments needed in order to find out whether the invention has uses far removed from the ones that the patentee has first identified. And then of course there is Microsoft, and even before that, there were labs and companies insisting on having control over all aspects of foundational technologies, who appear to meet the Schumpeterian idea of an efficient monopoly innovator, and yet, when others gain access to pieces of their technology, they tend to come forward with amazing new advances. So, the notion of the rational actor efficiently exploiting its rights simply does not hold for these works. These products are too far upstream or too deeply complex for us to believe that the IP right holder can explore them and mine the opportunities efficiently.

Now, some argue that this is a problem for IP law to solve, but actually this tends to be kind of hard to do. Trademark law has ways to deal with unique works: it just calls a unique work generic, and you cannot get protection on them. But if you think about patents, for example you could try to exclude a particular subject matter, or you could try to narrow the scope of the patent—Germany has just enacted a law that provides very narrow protection for genes, for instance—or you could expand research exemptions. But it is hard to produce rules that maintain incentives and do not generate uncertainties for future innovators. In addition, as Prof. Ghidini said, there is also the

TRIPS Agreement to untangle. But in general, IP rights appeal through the very broad protection offered, so it is difficult to figure out ways to deal with the problems they create. You could think of institutional approaches, for example patent pools for dealing with genes and proteins. But there are problems with pools too: there are no economies of scale to be enjoyed, and there is no easy way of monitoring, as there is in listening to the radio and counting the number of times a musical piece has been played. Pools could work when there are many patents needed to build a single product, but there is also the opposite problem: one patent can create many products, and so there is no need for companies like Microsoft or Myriad Pharmaceuticals to put their patents into pools.

If IP law is not the solution to the problems of unique works, then what is it? I suggest that competition law is one possible solution to this kind of problems. For transactions that are occurring, you want to allow these transactions to happen, and thus you should have a rule of reason approach to them. For refusals to deal, however, I think we need more scrutiny, at least in the US. Hewitt Pate nicely summarized the view of the US authorities towards refusal to deal, and I am sad to hear that for five-star IP rights neither the European law is going to be applicable either, because I do think that there are at least three aspects on which EC competition policy made a move forward. The first is the idea that consumers have a strong interest in the development of products through innovation—so it is not all about prices and output, in an information economy it is also about producing innovative products. Second, the European approach looks at the incentives of the industry as a whole, and not merely at the incentives of the right holder. I think that this is a very valuable insight. Third, there seems to be less of a need for a record of dealings followed by refusals to deal, where there is a sense that competition can actually be harmed while still dormant, by just sitting in place and blocking entry for those who might otherwise act for the benefit of consumers.

People talked today about why we should not allow competition law enforcers to come in this area. In some of the refusal to deal cases you can see exactly what the frustrated licensee would like to create with the IP in question. If the right holder is not using it, you can rest somewhat assured that its own incentives are not going to be diminished. In effect, what you would be allowing by requiring the right holder to deal is that the knowledge of the potential licensee is used to correct the mistakes caused by the imperfect rationality of the right holder. Competition enforcement would certainly solve the information asymmetry problems that would otherwise frustrate efficient competition. That is not to say that every refusal to deal is a violation of competition law. We need to see if there is an IP right that is unique, or that made itself unique, which creates actual potential for harm, in the sense that its use is necessary to create a particular product, that the product would enhance consumer welfare, and that the IP right holder blocks this.

I would like to say one word about the notion that *Magill* was a one-star IP right, whereas five-star IP rights would require a different treatment. I urge you to think about the following: is it not that the IP right involved in *Magill* was so distorted; the real problem in this case is that it costs nothing to innovate in this context. TV schedules, for example, are just a side-product of the TV stations, and so there is a huge discrepancy between the cost of creating the IP right and the benefits that come on its account. That is true of genes and proteins as well—the cost of creation is actually very low, as sequencing is easy, but the benefits that you get are huge. And so, you are not close to the line of incentives—you do not need to worry that you will affect incentives to innovate in some of these cases, because the incentives are hugely out of line with the costs of innovation. In those cases where there is a huge discrepancy between the cost of development and the benefits that the developer gets there is room for competition law to step in, because enforcement takes place *ex post*, when you can see if there is this huge discrepancy. I would therefore think of *Magill* as a case in which the cost of innovating is low and the benefits coming out of it are huge, so, where there is a refusal to license you need not worry about incentives.

► John Fingleton—I asked Deborah Platt Majoras, the Chairman of the FTC, to make a few comments on the US hearings on the interface between IP and competition law.

► Deborah Platt Majoras—In 2002 and 2003, the FTC and the US Department of Justice held together hearings on the interface between IP and competition law, covering a whole variety of issues, including many of those addressed by this conference. Following these hearings, in 2003 the FTC issued a Report[14] calling for a reform of the US patent law. The basic premise of the Report is that, in fact, IP and competition laws are not in conflict, but have essentially the same goals. However, if one regime gets out of balance from the other, conflict arises. The Report set forth 10 recommendations for the reform of the US patent system, including the implementation of an *ex post* administrative system for challenging patents (one of the major problems we have in the US is the high amount of patent litigation, taking years, being highly costly, and injecting much uncertainty into markets), and Congress giving to the Patent Office adequate funding.

There was a follow-up to this Report: a few months ago, the FTC sat together with the National Academy of Sciences, which had also issued a Report on US patent reform[15] including similar recommendations, and with the Trade Association of Intellectual Property Lawyers in the US, in so-called

[14] See *supra* n. 6.

[15] See http://www.aipla.org/Content/NavigationMenu/Meetings_and_Events/Seminars/Conference_on_Patent_Reform/Conference_on_Patent_Reform.htm.

"town meetings", where the public is invited to comment.[16] This was an attempt to get individual inventors and smaller innovative companies to give us their views on the proposed reforms. A final meeting will take place on the 9th of June 2005.[17] So far, the main recommendations seem to be introducing an administrative *ex post* control of patent validity and placing some limits to unwilful infringement liability—which apparently has an impact on many companies, because the damages awarded can be so high, even when the companies argue they did not know that they were infringing, and in addition there is a lot of debate on changing the burden of proof in such cases. Compared to a few years ago, nowadays we see major US companies calling for reform of the US patent system.

▸ HANNS ULLRICH—My position here is somehow split, as I am half an IP lawyer and half a competition lawyer. As an IP lawyer, I could not resist taking the floor when I learned that there is a difference between one-star and five-star IP rights! . . . For me, they all look alike, as far as the value of the right is concerned.

When it comes to the interface between IP and competition law, the standard attitude—which was rightfully criticized by Prof. Ghidini—is that all IP are the same, and they are treated in block. Most of the times, the US model is identified with the approach to patents. But in reality, there are patents, and copyrights, and brands, and trademarks, and they certainly serve very different purposes. Trademarks, for example, are not about innovation; they are about enhancing distribution. When it comes to copyrights—and this is part of the European mistake—there is a tendency to put into this box totally different things, like creative work and software—which I would put under the heading of technological property.

Furthermore, each of these categories of rights operates distinctively. When we talk about whether we could or could not cure some of the problems that arise under the IP legal system, we must look into these distinctions. I would also make a distinction between the kinds of failures that arise within the system itself: unduly broad concepts of what is being protected; unduly easy access to protection. These problems must be distinguished from those related to the way in which the right holders make use of the protection system. It is very easy to over-stretch the patent system by taking out too many patents, and to use patents for blocking purposes. This you cannot do with copyright. Copyright arises automatically as you create the work. You may abuse these rights, but it is not the same strategy as behind patent protection. If you look at the patent system in the major international jurisdictions, you are sure that you get an examined title—they look whether it is correct or not,

[16] For further details, see http://www.ftc.gov/ogc/workshops/patenttownmeetings/index.htm.

[17] For transcripts and outcome, see http://www.aipla.org/Content/ContentGroups/Meetings_and_Events1/ Roadshows/20058/Transcripts_of_Town_Meetings_on_Patent_Reform.htm.

and the strictness of this control is different. In the area of copyright there is no control of the sort, and the creators must take a risk. The attempts of the systems to solve their problems are very different. In the US, there is no compulsory licensing of any kind in the patent system, but this traditionally exists in the European systems, and even in the new EU patent system we will have compulsory licensing in the case of improvement patents and other dependent situations. In the area of copyright we do not have this kind of thing: one explanation for *Magill* is that this was missing in the copyright system.

Then there is the question of whether we should distinguish biotechnologies from other areas covered by the patent system—and here I do not entirely agree with Prof. Dreyfuss. The system should work equally for everybody, so that people can take a competitive decision on which areas to go into. If we cut out protection for biotechnology, by saying it is too broad, and enlarge it for, say, electrical devices and electro mechanics, then the system, instead of being property-neutral, becomes industrial policy. The allusion in Prof. Dreyfuss' written contribution was that the current system may be counterproductive. But I think we should be very careful about changing the role of general market regulation for the patent system. Prof. Fox's question was whether, and when, should competition law interfere—my answer is, when the system becomes so excessive that it cannot be accepted anymore as it stands.

► ELEANOR FOX—I wanted to make a few comments drawing on the discussion this morning, and perhaps sharpen the debate even further. Hewitt Pate suggested that antitrust agencies should restrain their intervention in this area so as not to "overkill". John Fingleton counter-argued with the example of the eucalyptus tree. How can we mediate these conflicting points of view? Hewitt Pate said that courts and antitrust agencies have limited assessment competence, so they should stay away from pure refusals to deal. Ian Forrester mentioned, interestingly, that he spent the first part of his legal career losing antidumping cases, because EU courts did not feel competent to assess policy decisions. Again, Ian Forrester argued that, although the EU has made very limited exceptions from the duty to deal approach, in *Microsoft* there is a five-star technology protected by a five-star IP right, and this should justify an exception. My question is, who tells us how significant each IP right is? *Microsoft* is claiming a right to refuse to allow interoperability. But, as Philip Lowe said, there are some occasions on to which access is of the essence, and this is so when we talk about computer technology, and computers communicating with each other. We should not prevent the promise of innovation by allowing a firm to block such essential things as computers communicating with each other. Prof. Dreyfuss pointed out that we often start from the assumption of rationality. We all know that, in many cases, and breast cancer is one of those, the IP right holders do not really have their interests aligned with those of the consumers. So, is there a possibility of introducing an additional exception to the principle of no refusal to deal, additional to *Magill*, and which is limited to computer interoperability, where the IP right holder has the power to block a much larger market than the one his IP right conveys?

▸ ALLAN FELS—As a self-appointed representative of 23 million eucalyptus-growing people in Australia, I thought I should also make a few remarks. . . First of all, I think we need to look at the international dimension of IP law. There are very few areas of economic policy where one can ignore the issue of international restrictions on the flow of goods and services. In the IP world there are major statutory restrictions on the free flow of goods and services, largely as a result of the mere existence of universal restrictions of parallel imports. Such restrictions are statutory—I am not talking about commercially-attempted restrictions on parallel imports and the attempts by competition enforcers to deal with them, but about statutes in many countries. These seem to me to have a major effect on competition. First of all, just about every country restricts quite substantially imports. In Australia we had some cases where one could see that such restrictions tend to affect competition, especially when you know that a product is simply cut out from the market. It is also one of the features of IP law, making it a bit different from other areas of law, that you run against these quite draconian statutory restrictions on parallel flows of goods and services. There is of course a perfectly respectable case for having copyright and patent laws, to stop people from copying an invention, but this is in the production sphere of IP law. But when you talk about the distribution of products that are put on the market in accordance with IP law, there does not seem to be any market failure justifying the restriction of the international flow of goods.

What economic effects do such restrictions have? I think that US restrictions on parallel imports do not have a terribly notable effect. In Europe, the effects are more notable, and there is some evidence of prices being higher in a number of areas where there are restrictions on the international inflow of IP products—for example, copyright for books. In the rest of the world, these restrictions have a major influence on the way in which IP transactions occur, as these countries are net importers of IP products and tend to be net losers from the parallel import restrictions. However, even in the EU and US jurisdictions, parallel import restrictions somehow put a collar around the discussion about the interface between IP and competition, as restrictions are the standard thing to look for in competition enforcement, in my view.

On the question of who should deal with what, I am one of the many around this world to believe that law and policy-making have been captured by producer interests, and therefore I would be quite cautious about recommending to entrust IP policy-makers with the task of solving these issues.

▸ DEBORAH PLATT MAJORAS—Philip Lowe intimated at the beginning of his remarks that, while it is terrific to have a consensus in principle, what matters most is actual implementation. Hewitt Pate and Professor Fox talked slightly differently about the competence of the enforcement agencies in this area. I think that, when we talk about compulsory licensing, we should take into account what that remedy means in practice. In fact, if you look at what the US Supreme Court established last year in *Trinko*,[18] one of the reasons why we typically do not force parties to deal with other firms is because the remedies awarded after we have imposed liability are so tough and undesirable. For example, to say simply "just require licensing, and make licensees pay for it fairly, that would solve the market problem" would create all kinds of new problems. When we, as law enforcers, try first to do no harm, we run into some difficulties. We recently had some experience with this in the Microsoft settlement,[19] when the Department of Justice required Microsoft to license IP that has never been licensed before—not because it would have been violating US antitrust law by not licensing, but because we were broadening our remedy to extend it out into the future, to try to restore competition in markets that had been lost. I will not remind you of all the practical difficulties that one encounters: we are neither regulators, nor courts. It is easy to say that one should find non-discriminatory terms (a terminology that you find very often employed in IP law), but in reality this is very difficult to achieve. I think that, in having this discussion about what we should and should not do, we have to think also of what we are capable of doing. It is not easy to recreate a market scenario and have the courts involved in what would typically be a private transaction.

▸ DOUGLAS MELAMED—We started this morning with Hewitt Pate's remarks on the issue of whether there is something different about IP that would justify a different treatment under antitrust rules. I think it is worth pausing on that for a moment, because so far the sense of this discussion has been that the answer is no. No one has pointed to any difference between IP and other property that would justify special treatment. The facts may surely be different, but that is true of all individual cases. Hewitt Pate said that, as he reads the US case law, there may be a complete immunity from liability for simple refusal to deal. We have long disagreed on whether US case law really implies that, but in any event, this is not a conceptual or principled difference.

[18] See *supra* n. 2.

[19] The settlement took the form of a Consent Decree reviewed and approved by the US District Court for the District of Columbia—see *US v. Microsoft*, Civil Action No. 88-1232 (CKK), final judgment of the US District Court of the District of Columbia of 12 November 2002, full text available at http://www.usdoj.gov/atr/cases/f200400/200457.htm. For complete documentation about the settlement and its implementation, see http://www.usdoj.gov/atr/cases/ms_index.htm#settlement.

I think it is useful to ask ourselves where would the ordinary application of antitrust principles to IP cases take us to. I submit that there is no real difference, and focusing on broader principles is illuminating.

Second, on the "first, do no harm" approach: we all understand that there are limitations to the competencies of competition agencies and courts. But I think that, in a law enforcement regime, as opposed to a regulatory regime, the question has to be re-phrased: the issue is not whether we believe that courts will get every case right (for example, are we confident that the Court will know exactly where to draw the line with respect to Microsoft's interoperability?). In a law enforcement regime, the first question to ask is what rules are likely to result in an optimal outcome for most cases, including those that are never litigated. The rules serve the important function of deterring anticompetitive conduct, and the benefits of a sound rule exceed the benefits of individual cases. Indeed, even if every litigated case were decided wrongly, the rule might still be sound if you look at its deterrent effect generally. In that connection, a rule that says "don't intervene because we might get it wrong" is a general rule, and it is not self-evident to me that this is the optimal rule.

On the matter of unilateral refusal to deal and compulsory licensing, the general argument is that we have to worry about incentives for innovation, and that there is a dynamic and a static welfare interest. I completely agree with that, and also with what Deborah Platt Majoras said a minute ago about the difficulties of knowing what are the terms on which someone should be required to deal. These factors point to being cautious in the area of duties to deal—and I think that *Trinko* was rightly decided for that reason—but I also think that there is nothing unusual about IP: the same principles would apply with respect to any input, namely that someone may have obtained unique assets by innovation, or by being a first mover; and that he may have market power because of network effects rather than patents—as in the case of Microsoft; or because he was the first to buy up all the bauxite, as in the case of Alcoa. It does not seem to me to matter whether it is IP or any other important input. I think that, in deciding whether to allow a competitor access to an important input, one needs to think of it as a make-or-buy decision—that is to say, should the owner combine the input with all the other inputs and sell the product downstream, or should he contract someone more efficient to provide the other inputs, or sell the inputs to him and let him do the assembly. I think there are tractable antitrust principles when we identify cases of refusals to deal with outsiders—they have nothing to do with the uniqueness of antitrust, they have a lot to do with the policy concerns that Deborah Platt Majoras mentioned earlier.

One final comment on policy concerns: if we think of antitrust as law enforcement, and not as regulation, the remedy question might not be precisely the right question. The right question is whether there is an identifiable duty to deal? Do we know on what terms the right holder should have dealt with the plaintiff? If we do, then it may be appropriate to say that his refusal to deal was illegal and impose a penalty (even if we think that the courts cannot effectively impose an injunctive remedy) and oversee a future course of dealing. In other words, penalties and deterrence might be much more important than injunctive remedies as a solution to this problem.

▶ Luc Peeperkorn—From the discussions we had so far, and from the written contributions, it seems to me we all agree that compulsory licensing could affect incentives to innovate. We also agree it is difficult to assess such effects. From this some conclude that the best option is never to intervene in cases of unilateral refusal to deal because of the risk of 'false positives'. But with such an approach, you will definitely also have 'false negatives', i.e. cases where the antitrust authority should have intervened but it did not. So we are somehow forced to define rules establishing the circumstances where we want to intervene, instead of defining a rule that always holds us from intervening or asks us to always intervene. I understand the arguments made by Deborah Platt Majoras: it is difficult to decide at what price, when, etc.; but we have a duty to try to shape rules that are reasonable. Such rules may be partly cost-based, or, we might want to take into account what the holder of the IP right could have earned, or what he has the moral right to earn. We might have long discussions about how much we think we can interfere with someone's earnings, but we cannot refuse to intervene simply because we find it difficult to strike such a balance. Sometimes we may find reference points even within the market—for example, other markets where similar IP is being licensed, the royalties received, etc.

▶ James Venit—I agree with Douglas Melamed in that, from an antitrust analytical point of view, IP is like any other property, but institutionally speaking, things are not the same. I think this is a real problem, and I do not want to get into a *cul-de-sac* with an unsolvable problem: to me, the notion that the sequencing of the genetic code could be protected under IP law and a monopoly could be created for that is terrifying, but also, I am not sure that this is an area where a competition authority has the legitimacy to intervene. Here we have a monumental social concern at stake, and if the legislature is responsible for creating that situation, it is also the one that has to undo it. I think this is furthermore a problem in Europe, because the Commission is a delegated, appointed authority, and there are elements of executive legitimacy to consider here, that are perhaps more accentuated than in the US. So, there are very serious institutional balancing questions that arise out of the specific nature of IP law and antitrust law. Clearly, the competition authorities should have an input into the legislative process. Some argue that the legislature has been bought off by the interest groups, and that is also a serious problem to consider, but I do not think that this problem can be corrected with aggressive intervention by the competition authorities.

▶ John Fingleton—Some of us would also have serious doubts about the ability of competition authorities to dismantle such problems through advocacy only . . ..

▶ Thomas Vinje—With respect to the suggestion that there should be a distinction between one-star versus five-star rights, I find it particularly troublesome in the European context, where the Commission and the European Courts are both required through EC constitutional settings to treat national IP rights as the national laws and courts established. I do not think that the ECJ is in the position to judge that a particular application of an IP right by the Irish court involves a one-star right, whereas another application of an IP right by a French court involves a five-star right. Even beyond the specific European constitutional arrangements, I think that, more generally, it is extremely difficult for courts to determine which happens to be a one-star right and which is a five-star right.

Moving on to the application of the one-star versus five-star rights distinction in the *Microsoft* context, I think that, in this case, Microsoft does not have either a five-star or a one-star right. I do not think that Microsoft's claim of trade secrecy should hinder the Commission's ability to issue a decision, in so far as it is the refusal to disclose that constitutes the infringement in itself. When Microsoft has incentives which are not polluted, so to speak, by the monopoly with the effects flowing from it, Microsoft showers the world with exactly the same sorts of protocols for free. With respect to copyright, I do not think there is a straight argument in that the interface specifications required to be disclosed by the Commission's decision are protectable by copyright, and so, that there would be an infringement of the copyright involved by virtue of the Commission's decision. With respect to patents, first note that Microsoft did not raise the patent issue at all, or it did very late in the procedure—which, I think, does, as a practical matter, throw some doubt upon the whole question. But in any event, it is not clear that implementing these protocols would involve any infringements whatsoever of Microsoft's patents, and it is also unclear whether those patent were really valid. In any event, I think it is important to note that protocols are by their very nature not very innovative—they are mundane, arbitrary things. They determine things, like who starts speaking when, that affect the components of a particular network—for example, how long do they speak, and in which order do they have to speak. I do not think that the Commission is involved in any sort of pruning approach, in the absence of which people might try harder to innovate. Microsoft is preventing interoperability, and by doing so, it limits the ability of others to compete. If others were able to interoperate, and thereby compete, Microsoft would eventually find itself subject to competitive pressure to innovate.

► Steven Anderman—We talked about the interface between IP law and competition law, but there is also a second interface, between the EC principle of free movement of goods and IP law, that sits alongside the former, and we did not make this relationship as explicit as we should. When talking to legal practitioners, I very often get the impression that there is confusion about how much the arguments from one sphere could be used into the other sphere. I always say these are two separate spheres, but they do go hand in hand. Even in the Guidelines we could have possibly elaborated more on this overlap—but I do not mean to criticize the Guidelines, I just find it appropriate, particularly in the European context, to make things a bit more explicit.

My second point is a bit more conceptual, about the one-star versus five-star IP rights distinction: I think that the main question Ian Forrester was raising is: what happens when we get a five-star IP right covering a five-star technology? I am tempted to answer more like an IP lawyer than a competition lawyer to this question: I see this distinction with a bit of diffidence, because I think of the courts' abilities to make it. At the same time, looking at the same cases that Ian Forrester has looked at in his written contribution, my reading is slightly different from his. I think it is slightly amazing to see that the paradigm in the *Magill* case has been upheld in *IMS Health*. Why is that so? Is it because of the weakness of the IP right at stake, or is it because the judges have chosen to endorse in each of those cases the principle that the Commission is the guardian of the Treaty, and that Article 82 EC is the framework to deal with cases where the IP holder has market power and engages in unilateral conduct which is harmful to competitors. Under Article 82 EC, as it is currently interpreted, the European courts tend to endorse a remedy ending the infringement. But for the next case that will come up involving a five-star IP right and a compulsory licensing remedy there is no precedent, so it is difficult to predict what they are likely to do; but I do think that there is an element of continuity in that different judges are willing to uphold the Article 82 EC approach in general, and if IP rights get caught in the crossfire because of market power and the conduct of the IP right holder, then so be it; the judges are not likely to turn away. If we get into a situation where there is a really good IP at stake, there is room for a defence within the Article 82 EC structure, and that would be, for example, the objective justification defence. One example would be where you get a patent and you get an invention and a new technology, and the firm has had plans about what to do with that but it has not implemented them yet.

► Calvin Goldman—I would like to come back to the question asked by Hewitt Pate this morning: how do we identify what goes beyond a simple unilateral refusal to deal? First, we should carve out immediately those situations involving some form of coordinated conduct, where you have restraints on entry by the potential licensee into a downstream market. Those cases are clearly distinct from a simple unilateral refusal to deal. Second, in rapidly-changing markets—and here I agree that IP is not really any different than any other property—we should proceed with caution, like Deborah Majoras Platt and others have pointed out: no matter how good the qualities of the adjudicator, such markets can change in unpredictable ways. Therefore the antitrust approach has to be the least interventionist possible—we should use a laser instead of a cannon, so to speak. Third, we should craft a periodical review mechanism—every 2–3 years you may want to increase or decrease the laser beam, but you should not put yourselves in a position where the remedy is irreversible.

► Mario Siragusa—I would like to address the question of whether and to what extent IP requires a special treatment under competition rules. For me, the answer comes very clearly from the jurisprudence of the ECJ, which I think, in a sense, has treated IP rights more stringently than other property rights, and rightly so. National laws traditionally conferred a very powerful legal monopoly and exclusive rights, so the ECJ jurisprudence has very skilfully constructed an exhaustion doctrine in order to find a new equilibrium in the way in which IP rights can be enforced. Then we have the ECJ jurisprudence on refusal to deal, which, again, I think, is more advanced than the jurisprudence on refusal to deal with other products. I do not think that under Article 82 EC we have a straightforward case in which the refusal to supply a prospective customer is considered an abuse. If you think about it, most cases of refusal to deal involving other property than IP concern the interruption of supply to an existing customer (*United Brands*,[20] *Commercial Solvents*[21]). The Court has been more willing to go forward in IP cases. It has done that with the two absolutely extreme types of cases: a first stream of cases are *Volvo v. Veng*[22] and *Renault*,[23] where the prospective licensee wants to replicate exactly the same product. Here the Court established that an absolute refusal to deal is not an abuse *unless* [emphasis added] it is part of a more complex abusive behaviour, like excessive pricing, leveraging, etc. The second stream of cases, including *Magill*, is where the prospective licensee wants to do something else, and not the product covered by the IP right.

[20] 27/76 *United Brands* v. *Commission* [1978] ECR 207.

[21] Joined Cases 6/73 and 7/73 *Istituto Chemioterapico Italiano and Commercial Solvents* v *Commission* [1974] ECR 223.

[22] Case C-238/87 *Volvo v. Veng* [1988] ECR 6211.

[23] Case 53/87 *CICRA* v. *Renault* ECR 6039.

So, I think the Court has been more willing to intervene in the IP area, and rightly so, because there is this issue of the legal monopoly to be dealt with if we want to create an internal market. In Europe, IP has always been regulated at the national level, thus creating the problem of the allocation of markets, which in other legal systems does not exist. In the way I read the ECJ jurisprudence, there is a special treatment of IP rights. I do not agree with the suggestions not to intervene: no, I think the Court *has* intervened, and in a very calibrated way, and I think we should discuss later on about how exactly to differentiate, and what exactly a new product means. I have a number of thoughts on that, but maybe they are better left for later on in the discussion.

► Assimakis Komninos—On the one-star versus five-star IP rights issue, I think it is clear to all of us that this distinction does not refer to the right as such, but rather to the subject matter covered by the right—in other words, the test is not formalistic. This brings me to a second point, on the difference between IP and other 'normal' property. There is a difference in the sense that there is a strong presumption that in the area of IP you will have more innovation than in other kinds of products. So what counts is the substance, which is innovation, and not the external characteristics of the right as such.

A point about *IMS Health* and *Magill*, which I think has been missed so far by the commentators: in both these cases there was in other jurisdictions an example available for the Court to see what the situation would have been if there was access to that information. For example, in *Magill*, there were weekly TV guides in 10 Member States, so the reference point was available. In *IMS Health*, again, it was easy to see that access was provided in other Member States (if I remember well, in the UK the information was accessible for free). In these cases the Court could make comparisons to see if access was preferable to no access. In my view, *Microsoft* is a bit different, as there is no available reference situation, but only, as Prof. Fox put it, "a promise of innovation".

► Alden Abbott—First, a general comment: when looking for the optimal rules, one should look also at the system in which they are embedded. In the US, we have private right of action, treble damages and so on. In Europe, with the modernization project, private action may also take off. I suggest that commentators seeking the optimal interpretation of *IMS Health* should take into account the potential growth of private action in Europe. Second, following modernization, individual Member States will be able to develop stricter regimes on abuse of dominance than under Article 82 EC. Here there is a risk of creating regimes favouring national companies, for example overly broad access rules that are not exactly economically based.

▸ Jochen Burrichter—In relation to Thomas Vinje's observation on the constitutional limits to ECJ intervention in the field of IP rights: I think we should consider that, although the Treaty acknowledges the existence of IP rights, the European Courts must intervene in cases where these are interpreted or used in ways that go against the principles enshrined in the Treaty. IP and competition law issues could be reconciled through a stricter application of the Treaty principles, for example, in cases where national IP rights are extended in a way which is no longer justifiable by their aims. In other areas of law, the Court has successfully limited the scope of national law—for example, in Germany we had a ridiculous interpretation of what is misleading the public under unfair competition law, and the Court limited the scope of these rules, thereby adapting the German law to the EU general principles. This tool can be used positively in order to reconcile the tensions we are discussing about.

▸ Patrick Rey—There seems to be consensus that both antitrust and IP law promote consumer welfare, and should actually be used for this purpose. The question is: what are the relative comparative advantages of each? IP undoubtedly presents some specificities, when compared to other types of property, that are broadly related to free riding phenomena. IP law should deliver the broad principles on how to deal with these problems, based on information that is available *ex ante*—at the time when you decide whether to grant or not an IP right—and antitrust law may be used to fine-tune specific cases *ex post*. Of course, there are certain practical problems: for instance, in the US too many patents are being issued, and in the EU there is a disparity between the terms of the different national IP laws. These problems should be addressed by IP law, rather than through the application of antitrust rules.

Someone mentioned cost-benefit analysis during the debate, in the sense that there are cases where there is a discrepancy between the costs and benefits of IP protection. If I understood correctly, it is suggested to fine-tune the way in which IP rights are enforced by offering weaker protection where there is a notable discrepancy between the low costs and high benefits derived. If the question is whether the IP right should be enforced or not, I also believe that this should be dealt with in IP law, and not by antitrust. If we want to take away the protection of some IP rights, then the question is whether we want this to be done *ex ante* or *ex post*. In either case, consumer concerns should be given priority, but it is not desirable to always rely on the *ex post* correction of failures.

▸ Peter Plompen—I would like to draw attention to the international dimension of the interface between IP and antitrust law, and look at it from a different angle, namely, how to arrive at convergence in the approach to treating these issues? In my opinion, the level of agreement worldwide, both on the substance and on enforcement procedures regarding IP rights, is at present way ahead of the situation in the antitrust field.

Second, it was noted that sometimes patentees engage in creating IP because of the blocking power attached to the patent and not so much for wanting to produce the products themselves. In listening to the discussion this morning, I somehow got the impression that the blocking power of patents is bad. In reality, it is good, because it creates an opportunity for the patent holder to develop a new market and then exploit it. If this were not to be successful, the patent holder is at least buying a ticket into a field where it can participate as a player. So, creating blocking positions is not a bad thing *per se*—to the contrary, it also creates incentives for investing in R&D.

Third, and related to my previous point, the international dimension of IP favours the possibility of hijacking antitrust for other purposes than those intended by the legislator. This happens with respect to Article 82 EC, which has been exported all over the world, and there is a very high risk of it being hijacked for industrial policy reasons. The formulation of this provision is so open, and its interpretation is so wide (not to mention that in many countries it is not interpreted on economic, but rather on formalistic grounds), that this creates huge discrepancies in enforcement. At the same time, nowadays IP right holders are confronted with competitors that produce in countries where IP rights are not enforced, and which then export to countries where IP rights are in place. Thus, the weakening of IP rights may have very serious consequences for the competitive balance that we strive to strike.

► Thomas Vinje—In response to Jochen Burrichter: I did not mean to imply that the ECJ was constitutionally prevented from adopting decisions like *Magill* or *IMS Health*, but only that it should not consider a right established by, for example, an Irish court, as a lower quality than a right established by a German court.

► Claus-Dieter Ehlermann—I see two fundamental problems, which were either expressly addressed or implicit in our debate. One is whether there is a necessity for the antitrust enforcer to intervene at all in the IP area. It seems to me that those who are closer to IP law than to antitrust, and those who are somewhere in the middle, argue that there is a necessity to intervene, because IP laws are too broadly shaped. If we consider the actual difficulties that the European Parliament and the Council are facing in shaping the appropriate laws for computer-related innovation, we see how difficult it is to shape the rules in this area. The more complex the world becomes, the more difficult it will be to find the right words to express what would be technically necessary in order to delimit the IP right but at the same time not to define it too narrowly. So, the IP law side seems to lean in favour of *ex post* antitrust intervention. The second problem is: who should intervene? It is perfectly sensible to argue that, if someone has to intervene, it should rather be someone closer to the IP side. On the antitrust side, one may argue that, if nobody else intervenes, the competition agencies have to intervene in order to correct the failures of IP law. This constitutional—or institutional—issue surfaces in particular when there is some doubt whether the antitrust agencies are the right forum to shape the remedy.

► PHILIP LOWE—Prof. Dreyfuss argued this morning that problems are not eliminated even if you fix patent law procedures. I think we should accept that as a reality: there are problems which may need to be addressed by antitrust agencies. However, we start from the premise that the protection of innovative processes by IP rights is in principle a good thing, so antitrust intervention should only occur under exceptional circumstances. However, if those exceptional circumstances justifying antitrust intervention are verified, what is the grip that antitrust agencies have on the problem? Obviously, the anticompetitive effects on the market. We have a series of tests at our disposition: market power, possible objective justifications for refusal to deal . . . In terms of effects on competition, the test is, in very few words, about whether there is something out there that everyone is going to miss if we do not intervene against the refusal to deal.

This being said, if we are going to intervene, we have to intervene in a predictable way, on the basis of reasonable precepts that people can recognize in advance, and surely intervention should not take five or six years each time a problem emerges. We have to create a certain degree of fundamental understanding of what is frustrated by the conduct in question, which allows us to shorten the procedures. Simply relying on the market in the sort of situations mentioned by Prof. Jenny, where a dominant company defending these rights succeeds in eliminating competition, is in itself a problem. However, in order to intervene—and here Deborah Platt Majoras is totally right—we have to have a clear idea of how to tackle the remedies. We have not done enough work in this area. Firms are nowadays much more sophisticated than the antitrust agencies in classifying and defending their information.

As to the distinction between one-star and five-star rights, as Prof. Ullrich rightly pointed out, there are plenty of so-called “trade secrets” in the possession of companies which may be totally mundane. Here we are not talking about the value of the IP right, but just about asking companies to reveal what is necessary in order to restore competition and innovation. I think we need to work more on how to structure the type of intervention for ensuring that information will be disclosed, and the conditions for disclosure, so that the maximum protection can be given to innate innovation while providing whatever information is necessary in order to make sure that the market continues to work and competition is not foreclosed. I am not pessimistic about this: I think it is very difficult, but if we do not attempt to do it, we would do a disservice to business as well as to consumers. We just need to work more on what information is valuable as patented and what information is strategic to be revealed by the dominant companies.

▸ Hewitt Pate—In my paper I noted that factors such as the absence of a European-wide IP right and the characteristics of the US litigation system may have a role to play in our distinct attitudes towards refusal to deal issues. After having heard your insightful comments, I am still quite comfortable with my initial position, but I do want to be clear about what I actually argued on the clarity of the US position against intervention with respect to unilateral, unconditional refusal to license a valid patent. I think that the US case law confirms my interpretation, although Douglas Melamed may disagree. But I did not necessarily imply that any legal system, with whatever background of litigation and IP law, should adopt the same approach. It is my personal view that we would be better off if we try to reform the patent system. Prof. Dreyfuss argued before that, since IP law specialists do not know about antitrust, it should be antitrust agencies to take care of these problems. We argue that, since we do not know about IP law, it should be IP specialists who take care of it. I also agree with Allen Fels, although I am not so optimistic about the idea that legislators can come up with wonderful solutions to these issues.

As to what I meant by saying "stop us before we kill again": I did not mean that somebody should stop competition officials because they do not know what they are doing in general. Rather, it was a predictive statement, in the sense that, if the IP system does not attempt to fix some of these problems, i.e., to open research exemptions for follow-on innovation, to deal with the length and number of patents, and to deal with issues that are better covered by copyright (as Prof. Ullrich mentioned), then we *are* going to intervene, and I just do not think that we are the best placed to do it. At the end of the day, whether you like it or not, competition officials will intervene, and the interesting thing to talk about is what are the predictive tools to figure out when that is likely to happen. First, it is more likely we will intervene where there is weak IP. Second, we are likely to intervene if there is a wider social problem at stake—like the AIDS price problem. Third, if there is a monopoly not tied to the IP whose licensing is at issue, this is a sign that the case may involve something more than a mere refusal to license. Fourth, non-use of the IP, or the preclusion of a new product, is another pro-intervention factor.

So, I worry a little bit about competition officials deciding which is the most innovative product. I think we would damage the incentive structure if we do that. A final comment: big cases (such as the *Microsoft* licensing settlement,[24]

[24] See supra n. 19 and accompanying text.

AT&T II,[25] the Genzyme merger case[26]) are not exactly the best vehicles for shaping rules to be applied in the vast amount of other cases. Maybe it is better if these things get fudged, either by way of settlement or by way of legislative intervention—for example, the 1996 Telecom Act did that in the *AT&T II* case. Such cases provoke such strong feelings, and sometimes such political involvement, that I do not think they are good vehicles for coming up with good principles that will help us deal with a long line of cases.

► Ian Forrester—To comment briefly on Prof. Dreyfuss's intervention: I confess to have a certain prejudice of sympathy for the pharmaceutical industry, and I think that in this industry there is a unique example of correlation between the availability of strong IP protection and engagement in R&D. Over the past decade we saw a gradual shift of the centre of gravity of the European pharmaceutical industry towards the US. One of the reasons is that the US is a more research-friendly environment. Also, just because someone is making a lot of money, it does not necessarily mean that he is going to spend it in developing new drugs.

Second, to comment on the *Magill* and *IMS Health* cases. In *Magill*, one gets the impression that it is ridiculous for competition law not to intervene, considering the pile of TV guides and magazines available in other countries. That made the *Magill* decision easy. In *IMS Health*, the matter was *presented* as being ridiculous: why should a map of Germany be considered as anything special? Why should presenting information along the lines of that map be regarded as a violation of copyright? The replies were, it is unfair competition, the map was hijacked, there is bad faith, and so I can perfectly understand that the ECJ, when confronted with that question, decided to be prudent, and instead of saying baldly what the law is and how it should be applied, the Court formulated four criteria that the German court would then put to use. So, I see no inconsistency between *Magill* and *IMS Health*, either constitutionally or practically. The courts are bound to look at the practical consequences of their judgments, and therefore we cannot avoid looking at the nature of the IP right at stake.

Third, as to the distinction between one-star and five-star IP rights, allow me to put it differently: no matter whether the IP right is one-star, three-stars, or five-stars, when a company is ordered to disclose to its competitors a description of how technology works—and some of it may be quite routine, some quite clever, some in the middle—this is always an extraordinary intervention, because this allows competitors to develop something to compete with.

[25] *United States v. Western Electric Co.*, 673 F. Supp. 525 (D.D.C. 1987) (*AT&T II*).

[26] See FTC Press Release of 13 January 2004: "FTC Closes its Investigation of Genzyme Corporation's 2001 Acquisition of Novazyme Pharmaceuticals, Inc.", text available at http://www.ftc.gov/opa/2004/01/ genzyme.htm.

▸ Gustavo Ghidini—I will briefly comment on an approach expressed by our US colleagues, according to which compulsory licensing is some sort of state intervention bearing heavy transaction costs. That may be true in theory, but I also submit that there is a *de facto* rationale for this burden: compulsory licensing is a sort of Damocles' sword used to encourage private dealings. The true significance of a compulsory licensing order is not in how many compulsory licences are actually granted on that basis, but rather, in how many voluntary licences it has encouraged. So, it is an instrument of liberalizing access. One must not forget that, even before the *Magill* and *IMS Health* cases, this approach was applied in the industrial policy of the Commission with respect to liberalizing telecoms. In the *1999 Communications Review*[27] and the *Guidelines on the application of Article 81 EC to horizontal agreements*,[28] the Commission stated that, when a *de facto* industry standard emerges, the main concern will be to ensure that these standards will be as open as possible and applied in a clear non-discriminatory manner. To avoid the elimination of competition in the relevant markets, access to the standards must be possible for third parties on fair, reasonable, and non-discriminatory terms. This is an industrial policy aimed at liberalizing telecommunications, an instrument that can in the last instance serve the very objective of liberalizing.

Second, since we saw, from the interventions made this morning, that European and US views are different on several issues, I wonder whether we are starting from the same conceptual perspective on property. For example, is the Roman and continental tradition, where the servitude paradigm is the *nexus* between property and social duties, similar to the Anglo-Saxon tradition? A famous US federal judge, Learned Hand, wrote in the Foreword to Volume 50 of the 1936 *Harvard Law Review* some enlightening comments on this. He recalled that the Anglo-Saxon theory of property did not include any significant social duties, especially after the Tudors forged the English Commonwealth, and he added, as regards the American tradition, that "it was impossible that the American colonists of the 17th century should have maintained, even if they had inherited it, a tradition of communal servitudes; the individual asked little of society, and he himself created whatever meagre possession he acquired. On the contrary, he established and handed on a notion of society as an aggregation of monads, legally bound together as lightly as possible, and for few common purposes".

▸ John Fingleton—I think that, if you compare the attitude of the Irish courts, on the one hand, and the European Commission, on the other hand,

[27] European Commission: (1999): "Towards a New Framework for Electronic Communications Infrastructure and Associated Services", COM (1999) 539 final, 10.11.1999 (Communication to the European Parliament).

[28] European Commission (2001): *Guidelines on the applicability of Article 81 of the EC Treaty to horizontal cooperation agreements*, OJ C 3 [2001].

in *Masterfoods*,[29] you see a very different approach that goes to the heart of the difference between the Anglo-Saxon and continental traditional concept of property.

► Rochelle Dreyfuss—IP is one of the very few areas of legislation where we write fairly detailed rules about economic activity that is absolutely unknowable at that particular time. You write legislation saying that man-made molecules are protected, and then you cannot go around and say you are appalled that genes are protected. You cannot take genes out of the system because you happen to be appalled by the idea after legislating. If you did so, you would fail the expectations of those who, first of all, put all that money into gene sequencing, and secondly, you would create huge uncertainties in the system for the future. Any future innovator would then wonder if his endeavour will indeed be protected or not. This is simply not an option.

What about those IP rights that can be used in a way that frustrates innovation? This is, as Prof. Ehlermann put it, an institutional question: should antitrust or IP authorities do it? Hewitt Pate correctly pointed out that there are some things that IP enforcers could do, like better compulsory licensing rules, or better research exemptions. But I want to point out that IP people tried this before, with the very extensive patent misuse doctrine, and now we are getting a very strong doctrine of copyright misuse, but most people are pretty unhappy with the way that these doctrines are working, because the courts in IP cases do not know anything about economic activity and markets and competition. So, for the institutional comparative advantage question, it could be that IP courts are not the right place to do it.

Allen Fels is right to say that there are huge political economy questions in IP that do not come up in other areas, because you have these really strong rights that people make a lot of money off of, and you create a political dynamic that is extremely corrosive. So, here is somebody who is refusing to deal, and here is somebody who is entering into licensing activity that has very bad effects on innovation: who is better at thinking about the economic effects of this kind of behaviour? It may well be that the antitrust authorities really do have the better position. It will not be easy for them either, but they still might be better at it than IP courts and legislators.

Prof. Ullrich spoke of tailoring rights: I do not understand that point; rights are already tailored—there are lots of differences in IP law for different kinds of IP. Almost everything in IP law is decided from the point of view of a person with ordinary skill in a particular field, and that creates tailored rights. IP rights are all different because they have different levels of power attached to them—they dominate different scopes of economic activity—and

[29] Commission Decision 98/531/EC of 11 March 1998 relating to a proceeding under Articles 85 and 86 of the Treaty (Case Nos IV/34.073, IV/34.395 and IV/35.436 - *Van den Bergh Foods Limited*), OJ l 246 [1998].

so, there is already tailoring. Now, having more tailoring does not necessarily make it worse—it might make it better.

The points raised on remedies are very important: I agree with everything that Deborah Platt Majoras and others have said. I would just add that, sometimes, even willing licensing partners might have difficulties with these very uncertain rights, as the fruits of their joint activities are very uncertain. IP law developed a set of tools for dealing with that, which maybe the antitrust authorities could use as well.

One last point: Ian Forrester said that the US is luring pharmaceutical companies because of the strong IP rights offered. I am not sure of this: it might be that the pharmaceutical companies are rewarding the US for not applying any cap on pharmaceutical prices; it could be that the US has better rules for creating university spin-offs, or creating university talent; or we put more money into training people. If I thought the reason is that we have good IP law, I would not be so worried, but in fact I think that our IP law is getting increasingly unfriendly to innovation.

Panel II: EU Policy Issues

A Critical Examination of the TT Block Exemption Regulation and TT Guidelines

► Simon Bishop—I will start with an obvious comment: innovation is a good thing. Indeed, the benefits of competition are largely dynamic rather than static. We just had this general discussion about the interface between IP and competition laws. It seems to me that traditionally the difference between the two, if any, was that IP law tended to place more weight on dynamic competition, whereas antitrust seemed to place more weight on static competition. Recently, we have seen this paradigm change: in the *Oscar Bronner* case,[30] the ECJ stressed the importance of protecting dynamic competition.

The trade-off between dynamic and static competition is essentially a time-consistency problem. In 1977, the Nobel-winning economist W. G. Prescott said that governments might have an incentive to state that they want to keep a tight monetary policy, but when times get tough, they are always going to deviate from it.[31] I think that antitrust agencies are in a similar position: there is a lot of talking about willingness to protect dynamic competition, but actually, there is always the tendency to trim around at the edges when it comes to protecting static competition. Now, that is not to say that there is never a problem with abuses or static market power which might arise from IP rights, or even when firms have made legitimate business investments and then start to reap the awards. I really do not see any distinction between physical property rights and IP rights from an economic perspective. It seems to me that the only difference is that, with IP rights, there is more protection of the dynamic competition issues. It is clear that, if one believes in dynamic competition, one must allow firms to benefit from their investments. The fewer restrictions we place on those firms who have successfully innovated, the more attractive those investments are going to be.

When it comes to looking at the Technology Transfer Block Exemption Regulation (TTBER)[32] and the Technology Transfer Guidelines (TT Guidelines),[33] the whole question is: what is the trade-off we could strike between no restrictions on the use of IP rights, particularly when it comes to licensing, and intervention. My perspective is that one should very much lean on the dynamic side of competition, thereby allowing as little intervention as possible. I would say that, in general, the TTBER and TT Guidelines measure

[30] Case C-7/97 *Bronner* [1998] ECR I-7791.

[31] Kydland F. and Prescott E. C. (1977): "Rules Rather than Discretion: The Inconsistency of Optimal Plans", 85 *Journal of Political Economy* 473.

[32] *Commission Regulation (EC) No 772/2004 of 27 April 2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements* , OJ L 123 [2004].

[33] *Commission Guidelines on the application of Article 81 of the EC Treaty to technology transfer agreements*, OJ C 101 [2004].

up pretty well to this criterion: there are statements generalizing that licensing freedom is pro-competitive, and this is moving from a very broad towards a narrower interpretation of Article 81 EC. So, my subsequent comments are rather of a contextual nature, rather than going to the substance of the TTBER and Guidelines.

First, the TTBER provides for a 20% "safe harbour" threshold in agreements between competitors, and 30% in agreements between non-competitors. I have seen no empirical analysis on how many agreements are actually caught by those thresholds, but I have the impression that an awful lot of agreements will fall outside the "safe harbour". Indeed, one can imagine that in high technology markets firms may have up to 100%. From the fact that the TT Guidelines are so detailed about individual assessments, I get the sense that the authors seem to agree with me. But my question is: with the market share thresholds set so low, how relevant does the general presumption of pro-competitive effects remain?

Second, on assessment under Article 81 EC: the TT Guidelines recognize the importance of protecting long-term incentives to innovation, and this is reflected by a much narrower interpretation of what constitutes a restriction of competition. These are very laudable positions to take. When we get into a discussion about what are the benefits, it seems to me that the attention is rather on the benefits for the licensee, and not the licensor. But if the interest is protecting dynamic competition, it should all be about protecting the property rights of the licensor.

On assessing the effects of inter-technology competition: the TTBER and TT Guidelines ask whether the licensing agreement reduces competition (consumer welfare) with reference to a counterfactual situation of no licensing. That seems to me a perfectly sensible benchmark: it tries to identify when a licensing agreement might actually be anticompetitive—for example, when the licensing agreement obliges the downstream firm not to use an alternative technology. It seems to me that this is also a non-justified use of the IP: it is providing plenty of scope for licensing, but it will reduce the scope for inter-technology dynamic competition if all downstream firms have been imposed the same limitation.

My last comment is on intra-technology competition: my main criticism is that the TT Guidelines place perhaps too much emphasis on it. This may be the case of me reading too much into the text, but then again, if you are trying to protect a licensor and its incentives, why should he not be allowed to engage in some restrictions on who gets the licence? For example, if someone like iPod invents a better digital drive-disk which can be used in music machines, the best way to obtain rewards on this investment is to limit the use of the hard-drive disk to Apple. Now that might limit the possibilities of Sony to compete with Apple in the music machine industry, but it is a way to provide total rewards on innovation. If that were not possible, the best thing for iPod is to be bought by Apple, and then we end up with vertical integration.

▶ Luc Peeperkorn—I wanted to make a few comments on the philosophy underlying the TT Guidelines. First, IP is treated like any other property, and therefore IP licensing agreements are treated like any other agreements. The rules are based on Guidelines and Block Exemption Regulations that apply for vertical and horizontal agreements in general.[34] This means a wide scope for the TTBER, with market share caps, a limited hard core list, and a distinction of licensing between competitors and licensing between non-competitors.

At the same time, we pay attention to the specifics of IP rights and IP licensing—for example, the hard core list is similar, but not the same, as for other agreements. If you look at licensing between non-competitors, when compared with general distribution agreements, in the latter case active sales restrictions are covered by the Block Exemption if this helps to protect the exclusive territory of the distributor. In the IP area, there is a general exemption for all self-limitations between licensees, whether or not involving the protection of exclusive territory or not. The reason is that we tried to apply a more economic approach: in the case of distribution agreements, we want to protect distributors against free riding on promotion investment, but if there are already other distributors allowed to deal in the same territory, why then restrict another distributor? For licensing agreements, the matter is not only free riding on promotional investments, but also that the licensee must invest in production capacity, and he may not be willing to do it if he thinks there are too many competitors in the same area.

Another example of the economic approach is the way we look at licensing agreements that require royalties not just for the IPR-based product itself, but for all products from the licensee. Here we make a distinction between competitors and non-competitors. Between competitors we normally do not want to allow this, because that would mean allowing competitor A to impose a price increase on competitor B, not just for the products that he makes with the licensed technology, but also for other products produced with its own technology. Exceptionally there could be a good reason for that, for example, if you cannot observe as a licensor whether the licensee has or has not used your technology. But the general rule is that this type of behaviour should not be allowed between competitors. Between non-competitors, there is reason to allow the freedom to set royalties, because if you intervene, you may cause damage to pre-competitive licensing, and therefore such agreements are

[34] For "verticals", see *Commission Regulation (EC) No 2790/1999 of 22 December 1999 on the application of Article 81(3) of the Treaty to categories of vertical agreements and concerted practices*, OJ L 336 [1999], and *Commission Guidelines on Vertical Restraints* OJ C 291 [2000]. For "horizontals", see *Commission Regulation (EC) No 2658/2000 of 29 November 2000 on the application of Article 81(3) of the Treaty to categories of specialisation agreements*, OJ L 304 [2000], *Commission Regulation (EC) No 2659/2000 of 29 November 2000 on the application of Article 81(3) of the Treaty to categories of research and development agreements*, OJ L 304 [2000] and *Commission Guidelines on the applicability of Article 81 to horizontal co-operation agreements*, OJ C 3 [2001].

covered up to 30% market share. Beyond this threshold, the Guidelines require us to look at the effects of the agreement. If the licensee has to pay a royalty also for products that are not produced with the licensor's technology, he may be less inclined to license competing technologies, so the question is one of foreclosure.

This brings me to the third and last element of the philosophy underlying the TTBER and TT Guidelines: we took great care not to hinder pro-competitive licensing. From a dynamic pro-competitive perspective, licensing is in general positive. If you look at the intra-technology licensing restrictions, we are very favourable towards exclusive licences and towards territorial restrictions between licensor and licensee, both in cases of licensing between non-competitors and non-reinforced licensing between competitors.

A reply to Simon Bishop's remark that we could have limited intervention only to inter-technology competition. I think that would have gone too far, because it would neglect the importance of intra-brand/technology competition for consumers, and it would also be based on the idea that it is easy to make a distinction between those agreements that have effects on inter-technology competition and those that affect intra-technology competition, whereas in practice a lot of them have both kinds of effects.

As to the objective of not undermining pro-competitive licensing, one can also see throughout the texts the favourable treatment of non-reciprocal licensing between competitors. The same favourable treatment applies to the field of use restrictions even in reciprocal agreements. The reason for exempting these kinds of agreements was exactly to protect pro-competitive licensing. Allowing field of use restrictions in reciprocal agreements between competitors can be a threat to competitors; think of the example of two companies competing on two product markets, whereby the first company is licensing a technology to the second only for use in one of the two markets, and the second company is doing vice versa in respect of the other product market. One may fear that the companies will withdraw from the respective product markets for which they do not have a licence (sharing markets). But we thought that the risk is less than with territorial exclusivity, because in case of field of use exclusivity market sharing would imply closing down whole product lines in the other market in addition, field of use restrictions may be necessary to achieve design freedom or in case royalties are difficult to establish where not every use is well known.

To conclude, I think that the rules are quite "state-of-the-art" and converging with the US approach, but they can also be improved. A general view is that the rules are too complex in so far as the hard core rules are concerned, but I think that this is inherent in a Block Exemption Regulation, where you need to formulate in an exhaustive manner the scope of application. As to other flaws, in the paper I wrote together with Lars Kjoelbye we drew attention to one possible inconsistency between the hard core lists.

▸ Steven Anderman—The TTBER is a tale of delayed convergence: the Commission took into account the equivalent *1995 US Antitrust Guidelines on the Licensing of IP*[35] in drafting the 1996 Technology Transfer Block Exemption Regulation,[36] but at that time it was still caught up in the mentality of the old block exemptions. The economists within the Commission wanted to bring in market shares. I remember that, at a hearing with about 400 experts, a Commission official asked: "How many of you agree with introducing the market share test?" Not one person in the room raised their hand, so the idea was dropped. Eight years later, a new Regulation was adopted in the context of the modernization program, and it is a totally new regulatory approach, almost a revolution. It is definitely committed to an economic approach. It is important to see it as part of the Modernization Package, and in analyzing any Article 81(3) EC issue under the TTBER one must go back to the *Guidelines on the application of Article 81 EC*.[37] The TTBER adopted the philosophy of the 1995 US Guidelines, and I dare to think that the Commission would have perhaps liked to go all the way in taking over the 1995 US Guidelines approach. It has been very hard for the legal profession to accept that now we have moved away from the old style block exemption to a new style, "safe harbour plus guidelines". The hardest job will be to teach some of the older lawyers, particularly those outside Brussels, to understand the new mentality.

On the framework under which to look at the TTBER: we can look at those doctrines which accommodate IP rights simply because of the general nature of the doctrine itself, and then you have special treatments. The best example is the Japanese IP law, which gives immense immunity for the exercise of IP rights. The Australian law gives partial immunity. In the EU, we have under Article 82 EC the special circumstances doctrine, but if you look at Article 82 EC and the definition of dominance, and the way it allows at least in theory firms to acquire up to 100% dominance by way of investment in R&D, this is an example of how IP rights are accommodated by the doctrine of competition law. The TTBER approach is an accommodation of IP licensing within the doctrines of competition law, that is to say, it happens that the more economic approach to the interpretation of Article 81 EC helps to a surprising extent to accommodate IP licensing. First, the introduction of the more flexible approach has reduced the micro-management by competition enforcers of the content of the IP licensing agreements. Second, the distinction between verticals and horizontals has been done very explicitly and in an incredibly enlightened way, so that we get a very specific definition of vertical agreements between non-competitors, by looking at what the situation was when

[35] US Department of Justice and FTC (1996): *Antitrust Guidelines for the licensing of intellectual property,* text available at http://www.usdoj.gov/atr/public/guidelines/0558.htm.

[36] *Commission Regulation (EC) No 240/96 of 31 January 1996 on the application of Article 85 (3) of the Treaty to certain categories of technology transfer agreements*, OJ L 31 [1996].

[37] *Commission Guidelines on the application of Article 81(3) of the Treaty*, OJ C 101 [2004].

the agreement was signed. Third, the distinction between vertical and horizontal agreements is very important because for the first time it introduces a more favourable treatment of verticals. This may implicitly mean a less favourable treatment of horizontals and patent pools, but I think this is largely due to the Commission's lack of experience with those categories; otherwise they would have been granted a safe harbour treatment—but this may happen in the future.

If we look at the *ex ante* treatment of vertical agreements between non-competitors, it is interesting to ask whether this is special treatment, or part of the general treatment under competition law. Within the TTBER, if you start out as non-competitors, you would be treated as non-competitors for the duration of the agreement, unless the agreement is materially altered. And, as a very important concession to the reality and dynamics of licensing, in the Guidelines this reasoning is more or less repeated. There is nothing worse than competition law making room for opportunistic licensees to get out of the agreement and enter into competition. But is this special treatment, or just the understanding of the dynamics of licensing?

Another example is the definition of restriction of competition. Interestingly, the old doctrines like the 'limited licence' doctrine and so on are no longer necessary under the new economic approach, because the subdivision of exclusive rights is treated economically, so they are legitimate even under Article 81(1) EC. But the main benefit of the new economic approach comes from widening the scope of ancillary restraints (i.e., restrictions indispensable for the purpose of the agreement) to include even certain territorial allocations by the licensor to the licensee.

When it comes to intra-technology competition, which is a special feature of EC competition law, I would give good marks to that as well, because for the first time there is an understanding of the real nature of the licensing process: there is a two-year protection against passive sales as well as active protection for the length of the agreement. But this two-year rule has been carefully tailored, so it applies to each territory—whereas before you had a five-year rule, but the second and third wave of licensees could get no protection against passive sales. Lucas Peeperkorn described this as a recognition of the hold-up problem. Indeed it is so, but I would defy him to talk to a group of lawyers and tell them this—they would not know what he is talking about. So, the substance of the law is right, but there is still a huge gap between the legal profession and the regulatory framework. For lawyers, getting used to the new mentality is like climbing to a high diving board after swimming in a Jacuzzi.

Another important question is whether the new regime chills investment. Is there a problem of the US transferring their technology elsewhere and then simply shipping into the EU? We cannot know that unless we have a proper empirical analysis, but there has definitively been convergence under Article 81 EC and no convergence yet under Article 82 EC and merger control.

▸ Mario Siragusa—I agree with most of what Steven Anderman said, so I will just add a few remarks. My first comment regards thresholds: I am still of the idea that thresholds are not very helpful in licensing. I think the TTBER made a very important step ahead with the clear and well-spelled distinction of agreements between competitors and agreements between non-competitors. Having said that, I wonder if the threshold was needed, at least for agreements between non-competitors. If you apply the intra-technology test to agreements between non-competitors, I see no difference in whether you are above or below the 30% threshold. The Commission itself recognizes in the Guidelines that, for agreements between non-competitors, once you are above this threshold but below the dominance test, most likely the same principles will be applicable. Are not the application of Article 82 EC and the *Tetra Pak I* ruling[38] sufficient to solve the problem? Also, since in the new enforcement system these issues will be raised more often before national judges, I am concerned that the threshold will be used in order to complicate matters before the national courts. National judges will probably find it easy to distinguish between agreements between competitors and those between non-competitors, but after that, the national judge's task will be complicated by this threshold.

My second comment relates to the discussion about when the IP right holder has an obligation to license. Maybe that debate should have been more of an influence upon the substance of the TTBER. I recognize that the TTBER represents real progress towards a more economic approach, but the idea is that it is the behaviour of the IP right holder outside the borders of these rights to cause real concerns for competition, and I do not find this idea clearly reflected in the TTBER. For instance, it applies the old rules on grant-back clauses, field-of-use restrictions, tying of supplies, etc., but in the new technology world these issues may become more and more difficult and delicate. I think that the TTBER codifies a lot of the old rules in a more economic-oriented fashion, but does not tackle those issues which I think are going to be more delicate in the future.

My third point is rather a question: what is the future of the TTBER? I do not see it up for screening, but maybe that is too early.

In response to Steven Anderman, on why lawyers do not see much in the TTBER, I think this happens because it is a fairly complex document, sometimes obscure (not as much as the European Constitution, but almost. . .) and therefore difficult to apply. I am afraid that many companies will avoid plunging into a very complicated analysis of the possible outcomes of their actions, especially since these will be evaluated by national courts, and will instead rather mind the hard core restrictions, and this is a pity.

[38] Case T-51/89 *Tetra Pak Rausing* v. *Commission* (*Tetra Pak I*) [1990] ECR II-309

► Lars Kjølbye—First on how relevant is the TTBER: it is true that we created a very complex set of rules, although I agree with Luc Peeperkorn that it could not have been done otherwise at the moment. It is inevitably complex because in the same document we try to address both relationships between competitors and those between non-competitors, and on two markets, the technology and product ones. My personal view is that we are here at the limits of what can be done with a block exemption regulation. I hope that in a few years' time the legal and business community will have matured enough so that we can work without the TTBER, only with a set of Guidelines. So far, this has not been possible, mostly because of the European general search for legal certainty. A short comment on the point raised by Simon Bishop, that we have not taken sufficiently into account the interest of the licensors, particularly in the area of intra-technology restraints. I do not think this is true: while it is true that we apply the rules to intra-technology restrictions, there is an exception, according to which, if in the absence of a particular restraint it is likely that the agreement would not have been concluded in the first place, Article 81(1) EC does not apply. We actually use that analytical framework in various places in the Guidelines to say that restrictions which actually benefit the licensor fall outside Article 81(1) EC altogether. Take an output restriction on a licensee in an agreement between non-competitors: here the TTBER establishes that these restrictions are not caught by Article 81(1) EC, because if the licensor could not impose such a restriction on the licensee, in a great many cases that agreement would not have been concluded. While it is a restraint in itself, it is not one that affects competition. This will in practice take out of the scope of intervention a lot of restrictions that previously would have been considered to be problematic.

► Josef Drexl—A remark on the criticism of the low threshold requirements. Businesses argue that actually in the field of technology it is difficult for market shares to reflect actual market power, and therefore the thresholds should be much higher. One can also make the opposite argument: since we do not know if there is market power, thresholds should be rather low, so as to make sure that dangerous agreements do not escape competition law scrutiny.

Second, on the concept of the "safe harbour". For sailors, it is important whether they are in the harbour or outside of it. If you do not know this exactly, the weather forecast becomes very important—you have to know whether there will be a storm in the open sea or not. This brings me to the relationship between the TTBER and the direct application of Article 81(3) EC. In Germany, many practising lawyers argued that, if they do not know whether they are in the "safe harbour", they will lose their our cases. But this is not true, and the Guidelines are very clear in this regard: there is a good chance to win the case, and the licence might be easily acceptable. My impression is that the

TTBER does not matter that much in this sense. Why are we so much concerned about market shares? It is a good job for the economists to define the market shares, but maybe it is much easier to apply Article 81(3) EC. Let us not forget that, under the modernization package, it is the same institution—either the competition authority or a court—that applies both the TTBER and Article 81(3) EC.

Last, we should also focus on the relationship between Regulation 1/2003, the TTBER, and the application of Article 81(3) EC in this context. The problem is that the Guidelines are not very clear on what has to be tested under Article 81(1) EC and what has to be tested under Article 81(3) EC. The Guidelines on the application of Article 81(3) EC[39] are much more precise. My impression is that what needs to be proven under Article 81(1) EC is very broad. Most cases will appear before national courts, where the parties will have a dispute on the validity of the agreement, and the Guidelines on Article 81(3) EC make life much harder for the party arguing the illegality of the licensing agreement. Maybe the uncertainty produced by this new economic approach will turn out to be to the disadvantage of protecting competition.

▸ Peter Plompen—First of all, I think the TTBER is a very important instrument in Europe, especially in light of the decentralization of EC antitrust enforcement. A “safe harbour” that is mandatory for the national courts is a very good thing. Some remarks were made on the practical effect of the TTBER and TT Guidelines, and Mario Siragusa suggested that the list of hard core clauses is the most important, because that is the first place to go. At this point it is very important that the TT Guidelines contain a clear reference to the importance of dynamic competition over the static allocation benefits. The combination of a very limited hard core list and the modern economic approach taken in the TT Guidelines is a very forceful instrument. As a consequence of the modern economic approach, the character of the black list has changed with respect to the past. In the past, it was self-evident that when you had a black-listed clause in your agreement it was almost impossible to have your agreement validated in a procedure under Article 81(3) EC. Nowadays, the black list just indicates that you are out of the “safe harbour” and subject to individual assessment. This also is related to the approach taken in the context of the Guidelines on the application of Article 81(3) EC, which to me is far more important than Article 81(1) EC, and which consists of distinguishing between restrictions by object and restrictions by effect.

A last comment on the two counterfactuals: to me, it is important that the second counterfactual, related to intra-technology restrictions, s not seen as an equivalent threshold or test to the first counterfactual. Perhaps I am overstretching it a bit, but you only reach the second counterfactual (i.e., would

[39] See *supra* n. 37.

the agreement have been concluded in the first place without the restriction?) after concluding that the agreement as it stands is the only one that is reasonably possible for the licensor.

► Deborah Platt Majoras—Over these two sessions we have discussed when we want to compel licensing and whether there are instances when the licensing itself might be condemned. Traditionally, antitrust agencies have been most interested in looking at horizontal conduct, which is more harmful for consumers. We should keep in mind that businesses does not decide how to go about by putting things in little boxes, so they need to be advised in a clear manner about when their conduct is risky and when not. If you think about why a business might choose not to license, one very strong reason is that it does not want to help its competitors. As Prof. Ghidini said earlier, if we put in place rules on licensing, it is in order to stimulate more licensing of the kind that we like to see. But do we really want to see regular licensing towards competitors? Is that not creating the kind of horizontal problems that we most fear in antitrust, i.e., that we induce direct competitors to sit together more regularly and collude?

► Jochen Burrichter—In practice, when you have a case where there are doubts about whether the market share thresholds are met or not, one normally advises the client to keep within the boundaries of the TTBER, and then you can at least presume that the first three conditions of Article 81(3) EC are fulfilled, so that you concentrate on whether or not competition is eliminated. So the TTBER has already proved in practice to be very valuable, also in those cases where the thresholds are not met.

► Eleanor Fox—The concept of hard core restraints includes absolute restraints on parallel imports, and so there is a big divide between the EU and the US, where restraints on parallel imports are not seen negatively.

► Simon Bishop—If the ultimate goal is to rely in the future rather on the Guidelines, and therefore reduce thresholds gradually to arrive at that, then fine by me. My comment on market share thresholds was only that it imposes an additional bureaucracy burden on business. On intra-technology licensing, my example was that, if you have someone who wants to license a technology, he has basically three options: one, not to license at all, and end up generating zero revenues. Two, to license to a downstream competitor and generate revenues of 10 Euros per unit. Three, to license all three competitors getting 1 Euro per unit. Then clearly the licensor is interested in restricting licensing, and this seems highly desirable if we are interested in dynamic competition.

▸ Luc Peeperkorn—On the market share thresholds and the practical use of the TTBER, we should not forget that there are many agreements where innovation is not so path-breaking, or it does not create a whole new market, but is just an incremental innovation useful to companies with low market shares. Could we do without market shares? In a block exemption system, no: otherwise you turn the regulation into an *ex post* system of control. We need thresholds if we want to have a wide scope of the block exemption. Mario Siragusa argues that we could do without market shares in licensing between non-competitors. I do not agree. There is no good reason to allow, for example, a licensor with a high market share to impose on its licensees not to use any competing technology, and thereby foreclose the market, limiting us to *ex post* intervention. It is true that in practice people look first and foremost at the hard core list, and only later ask about how the competition agencies would look at foreclosure, and apply Article 81(3) EC, which is good—it may be less work for law firms, but that is not bad either, I think, and it also shows that companies are not so negative about modernization, because they are not so diffident of lower courts.

▸ Steven Anderman—I see the new framework as offering certain opportunities coming out of flexibility. We tend to forget how uncomfortable the old corset was: if you did not fit within the old TTBER, the agreement was illegal. Now, if you do not fit within the corset, you can still have the benefit of the TT Guidelines. The real problem is that this flexibility comes as a shock to the existing legal culture in Europe. We are moving from a closed system, which worked on the Germanic notion that everything which was not allowed was prohibited, towards an open system, where what is not prohibited is allowed. The US approach has been embraced in the new framework. When the legal profession gets a case that requires them to engage in a complex analysis under Article 81(3) EC, it feels like cold water, but it is something that we have to do in order to get the benefits of the new flexibility. But then there is the law of unintended consequences, which regulators and legislators always encounter, and in our situation, the unintended consequences of going only half-way is that the legal profession will hesitate to engage in the new approach. My experience as a practitioner is similar to the one described by Mario Siragusa and Jochen Burrichter: many lawyers advise clients to forget about market shares and just check the hard-core list of restrictions, or alternatively, follow the ground rules of the "safe harbour" although not being in it.

▸ John Fingleton—There seems to be a general agreement that the TTBER has added value and is moving us into the right direction. The discussion has rather been about the pace of the movement. Everybody seems to agree that eventually the TTBER should be replaced by the Guidelines. In that context, we should not forget that it is not only Article 81 EC, but also Article 82 EC, that is relevant. Let us not forget that the *Magill* case started out as an Article 81 EC case and ended up by accident as an Article 82 EC case. The market share test is a good way to go, I think.

Second, the TTBER and TT Guidelines are part of a wider transition: EC antitrust is moving from a regulatory approach towards a market-based approach. Steven Anderman made some wise suggestions about education and proceeding cautiously. The TTBER is an example of a step towards bridging the gap between where Europe was and where it is heading.

Hewitt Pate and Deborah Platt Majoras threw a ball in the air by arguing that antitrust agencies should not deal with problems that are really for IP law to solve. Profs. Dreyfuss and Ullrich threw the ball back—but it is still somewhere out there hanging in the air, unresolved. I think that IP problems are difficult, and there is no easy solution either on the IP or on the antitrust side.

I remember that when the *Magill* case was adjudicated, people started writing alarmist articles about IP in Europe being dead; Dan Goyder then wisely cautioned in his book[40] never to react to one single case. I think that, if you strip away certain differences between the US and EC systems, such as private litigation, the particularities of the internal market, the European legal culture, etc., in the end there may be not so many differences in our approaches.

[40] See Goyder D. (2003): *General Aspects*

SESSION ONE

GENERAL ASPECTS

2

WORKING PAPERS

CONTRIBUTORS:

Panel I: To What Extent Does IP Require/Justify A Special Treatment Under Competition Rules?

Hewitt Pate
Ian Forrester
Philip Lowe
Gustavo Ghidini
Rochelle Dreyfuss

Panel II: EU Policy Issues—A Critical Examination of the TT Block Exemption Regulation and the TT Guidelines

Simon Bishop
Luc Peeperkorn and Lars Kjøelbye
Steven Anderman

I

*R. Hewitt Pate**

Competition and Intellectual Property in the US: Licensing Freedom and the Limits of Antitrust

A. Introduction

Defining the relationship of intellectual property rights and competition law is an important economic issue in Europe and the United States. This paper attempts to outline some bedrock principles of intellectual property and antitrust policy in the United States, then discuss how they explain, and in some cases require, the current US approach to a series of specific licensing practices. The basic US approach, reflected in the *1995 DOJ/FTC Guidelines for the Licensing of Intellectual Property*, calls for flexible application of economic analysis to licensing practices. And the recent trend has been one of increasing convergence in US and European approaches to IP licensing questions, as seen in the new revisions to the Technology Transfer Block Exemption and accompanying guidelines.

The opening question for this workshop asks whether intellectual property is like other property. This question has been discussed to death many times over in recent years, without much improvement on the answer given ten years ago in the *1995 Guidelines*. In short, for competition law purposes, intellectual property should be treated in essentially the same way as other forms of property, though this does not mean that it is in all respects the same as other forms of property. "Intellectual property is thus neither particularly free from scrutiny under the antitrust laws, nor particularly suspect under them."[1]

This answer means rejection of the hostility toward intellectual property that held sway in the US during the 1970's. During this era, the Antitrust Division had a section devoted to attacking IP licensing practices that we routinely applaud today. This was the era of the "Nine No-Nos," during which we applied *per se* rules of illegality to many licensing practices. The contention that IP should be treated essentially like other forms of property

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[1] US Department of Justice and Federal Trade Commission (1995): *Antitrust Guidelines for the Licensing of Intellectual Property*, text at http://www.usdoj.gov/atr/public/guidelines/ipguide.pdf.

at that time was meant as a call to curtail hostility toward IP rights, a call for the end of disfavoured status for IP.

Today, in contrast, our policy is animated by the recognition that IP licensing is generally pro-competitive. But the modern answer to the question whether IP is like other forms of property also requires rejection of extreme claims of privilege on the part of IP owners. Today, the statement that IP is essentially like other forms of property is often heard in arguments against claims for complete exemption from antitrust scrutiny. The mere presence of an IP right that somehow figures in a course of otherwise anticompetitive conduct does not act as a talisman that wards off all antitrust enforcement. The classic statement on this point is contained in *United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001) ("Microsoft's primary copyright argument borders upon the frivolous. The company claims an absolute and unfettered right to use its intellectual property as it wishes. . . . That is no more correct than the proposition that use of one's personal property, such as a baseball bat, cannot give rise to tort liability.").

B. First Principles of US Intellectual Property Law and Antitrust

Sound antitrust enforcement condemns anticompetitive conduct. It does not attempt to regulate the amount of competition in a general sense or address vague questions of fairness. It does not attempt to create an affirmative incentive for pro-competitive conduct, by promising any specific reward or legal recognition for competitors who play by the rules. It focuses on specific anticompetitive actions, as judged by their effects on markets and consumer welfare. Although this narrow focus is a limitation, at the same time it is a great strength—it makes possible objectivity, predictability, and transparency.

Intellectual property laws, by contrast, provide a complex system of affirmative rewards for an important type of pro-competitive behaviour—innovation. They take consumer welfare into account, but in different ways than does antitrust. First, they reward innovators with exclusive rights that serve as an incentive to bring new and improved goods and services to market. The hope is that such innovations will lead to increased competition and increased consumer welfare in the long term. Second, they strike a balance between these rights and certain types of public access, such as fair use under copyright law[2] or the disclosure requirement and the limited term

[2] 17 U.S.C. § 107.

of patents.[3] They also include a fail-safe procedure under which a rival or a customer can sue to declare an intellectual property right non-infringed or unenforceable for a number of reasons. So the legislature, via the IP laws, has struck a balance between the rights of IP owners, the rights of consumers, and concerns for a competitive marketplace. This may or may not be the correct balance; nevertheless, it is the one the legislature has chosen.

It is important to understand precisely what reward is offered by the IP laws. Each type of IP right provides "exclusivity" for its owner. What does this exclusivity mean? It does not mean a right to commercialize any invention or creation. The owner of an improvement patent, for example, may find itself blocked from practicing its own patent if it cannot secure permission from the original patentee. Instead, what IP rights provide is the right to exclude others. The right to exclude is not simply *one* of the rights provided by intellectual property, it is the *fundamental* right, the foundation upon which the entire IP system is built.

C. Specific Practices and the Freedom to License

These bedrock principles of antitrust and intellectual property law inform the proper approach to specific licensing and IP-related practices. A decade's experience with the *Guidelines*, together with subsequent judicial precedent, provide reliable guidance on several issues in the US On many, but not all, of these issues, it is also possible to rely on continued transatlantic convergence.

1. Unilateral refusals to license technology

The subject of unilateral refusals to license intellectual property is one in which the premise that IP is essentially like other forms of property has sometimes been stretched beyond sensible limits. Because, outside the area of IP, antitrust law holds out the possibility of rare exceptions to the principle that parties are free unilaterally to refuse to deal with others, the argument is that there must therefore be *some* circumstance in which the unilateral, unconditional refusal to license a patent must constitute an antitrust violation. With a single much-criticized exception, this is an argument that has never found support in any US legal decision. At this point in the development of US law, it is safe to say that this argument is without merit.

A unilateral, unconditional refusal to license a valid patent cannot, by itself, result in antitrust liability under US law. It is instructive that the very

[3] 35 U.S.C. § 271(e)(1).

notion of such liability was not even discussed in the *1995 Guidelines*. Instead, the *Guidelines* unequivocally state that, even in the case of IP that conveys market or monopoly power, that power does not "impose on the intellectual property owner an obligation to license the use of that property to others."[4] This is hardly surprising, as the right to choose whether the license has long been recognized by the US Supreme Court as the core of the patent right.[5] Although the Supreme Court decisions are not directly on point, lower courts have correctly held that the unilateral, unconditional refusal to license a valid patent does not give rise to liability as an improper refusal to deal under Section 2 of the Sherman Act.[6] But of course, while an intellectual property owner has the right to decide not to license its technology, the owner does not have the right to impose conditions on licensees that would effectively extend an intellectual property right beyond the limits of the Patent Act.[7]

The clarity of US law on unilateral refusals was enhanced by last year's Supreme Court decision in *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP.*[8] In *Trinko*, the Supreme Court found that private plaintiffs did not state an antitrust claim when they alleged a failure by a communications provider, Verizon, to provide adequate assistance to its rivals. The Court showed great scepticism about expanding liability for the refusal to deal because such liability "may lessen the incentive for the monopolist, the rival, or both to invest in . . . economically beneficial facilities" and "also requires antitrust courts to act as central planners . . . a role for which they are ill-suited."[9] The Court posed the question as being whether the narrow list of exceptions to the general rule against liability should be expanded.[10] Although *Trinko* was not an intellectual property

[4] *Guidelines* Section 2.2.

[5] See, e.g., *Bement v. National Harrow Co.*, 186 U.S. 70, 90 (1902) ("[The patentee's] title is exclusive, and so clearly within the constitutional provisions in respect of private property that he is neither bound to use his discovery himself nor permit others to use it."); *United States v. United Shoe Mach. Co.*, 247 U. 32, 57 (1918) (reasoning that the exercise of "the right to exclude others from the use of the invention . . . is not an offense against the Anti-Trust Act."); *Hartford-Empire Co. v. United States*, 323 U.S. 386, 432 (1945) ("A patent owner is not in the position of quasi-trustee for the public or under any obligation to see that the public acquires the free right to use the invention. He has no obligation either to use it or to grant its use to others."); *Simpson v. Union Oil Co.*, 377 U.S. 13, 24 (1964) ("[t]he patent laws[,] which give a 17-year monopoly on 'making, using, or selling the invention[,]' are *in pari materia* with the antitrust laws and modify them *pro tanto*").

[6] See, e.g., *In re Indep. Serv. Orgs. Antitrust Litig.*, 203 F.3d 1322, 1325-28 (Fed. Cir. 2000), *cert. denied*, 531 U.S. 1143 (2001); *Miller Insituform of N. Am., Inc.*, 830 F.2d 606, 609 (6th Cir. 1987), *cert. denied*, 484 U.S. 1064 (1988); *SCM Corp. v. Xerox Corp.*, 645 F.2d 1195, 1204-07 (2d Cir. 1981), *cert. denied*, 455 U.S. 1016 (1982); but confront *Image Tech. Servs., Inc., v. Eastman Kodak Co.*, 125 F.3d 1195, 1219 (9th Cir. 1997) (permitting antitrust liability if refusal to license is "pretextual"), *cert. denied*, 523 U.S. 1094 (1998).

[7] *See Mercoid Corp. v. Mid-Continent Investment Co.*, 320 U.S. 661, 666 (1944) ("The fact that the patentee has the power to refuse a license does not enable him to enlarge the monopoly of the patent by the expedient of attaching conditions to its use.").

[8] 540 U.S. 398 (2004).

[9] *Id.* at 407, 414–15.

[10] *Id.* at 408.

case—the rights in that case were governed by the Telecommunications Act—the Supreme Court would apply similar logic under the Patent Act. Given the many cases indicating that the right to exclude is a fundamental right embodied in the patent grant, it is safe to say that liability for the unilateral, unconditional refusal to license a valid patent is not going to be added to the narrow list of exceptions the Court mentioned.

When analyzing the effects of a unilateral refusal to deal, one cannot merely consider the effect on a rival that is refused a license; one must also consider the alternative world in which the IP owner would have had less of an incentive to innovate because he could not be assured of the right to refuse to license. Would that IP owner have chosen to innovate less? If so, would competition or consumer welfare have been better off with the present state of affairs, including the right to refuse? In the *short* term, it will always be more efficient to disregard the IP right and allow duplication. The IP system rests on the idea of *long*-term innovation incentives, so we must think about the long-term effects of a rule imposing liability in this context. That is entirely consistent with antitrust policy related to exclusionary conduct, which also focuses on dynamic competition and long-term effects. Where we cannot reliably predict the effects of enforcement decisions, false positives are likely, and the increased uncertainty itself will raise costs to businesses and enforcers.

It is useful to remember that the creation of intellectual property tends to add to consumer choices, rather than to reduce them. The development of intellectual property for new technological solutions usually does not cause older solutions to be withdrawn from a marketplace; instead, it increases competition, which tends to erode the prices of the old solutions over time, increasing choice and consumer welfare. Of course, a patent sometimes issues for an obvious or previously-known solution to a problem, but such a patent should be invalidated, and the proper remedy is to seek invalidation under the patent laws.

Does this mean that the policy on unilateral refusals conflicts with EU law as stated in *IMS Health*?[11] At this time, that it is difficult to tell. The European Court of Justice decision, issued a year ago, began by stating that a refusal to license a copyright "cannot in itself" constitute an abuse of a dominant position. That seems to match the US view on unilateral refusals to license. But the court added that liability might occur if: (1) the refusal prevents the emergence of a new product for which consumer demand exists; (2) the refusal is not justified by any objective considerations; and (3) the refusal excludes competition in a "secondary market." It is not clear how these three factors will be interpreted, or whether the same reasoning would apply to other contexts such as a refusal to license a patent. (Some have

[11] See Case C-418/01 *IMS Health GmbH & Co. OHG*, paras. 34, 38, 53, text of the judgment available at http://europa.eu.int/smartapi/cgi/sga_doc?smartapi!celexplus!prod!CELEXnum doc&lg=en& numdoc=62001J041, http://www.curia.eu.int/jurisp/cgi-bin/form.pl?lang=en.

observed that the IP right asserted in *IMS* was relatively weak, and that the lack of a unified European system of IP rights may explain differing attitudes toward antitrust liability in this context.) It will be interesting to see how the *IMS Health* decision is applied, for example in the *Microsoft* appeal. While the Justice Department required Microsoft to make certain IP available to its competitors as part of the agreed *remedy* for antitrust violations, the European Commission imposed *liability* for the failure to make IP available. It will be up to the Court of First Instance to determine whether this was permissible under EU law.

2. "Excessive" royalties in standard setting and beyond

The Antitrust Division sometimes hears complaints about demands for large royalties. Most frequently, although not always, the complaints arise in the context of a technical standard. According to the complainants, one or more patent holders can "hold up" licensees by waiting until participants are locked into the standard, then charging an allegedly "excessive" royalty for patents that cover the standard. The US Federal Trade Commission has brought antitrust enforcement actions related to this issue in two recent cases, *Rambus* and *Unocal*. Both cases are ongoing.

Bringing a complaint to the Antitrust Division about "excessive" royalties, without more, is a losing strategy. Antitrust enforcers are not in the business of price control. We protect a competitive process, not a particular result, and particularly not a specific price. In fact, if a monopoly is lawfully obtained, whether derived from IP rights or otherwise, we do not even object to setting a monopoly price. A high patent royalty rate, after all, might just reflect that the Patent Act is functioning correctly and the market is rewarding an inventor for a pioneering invention. When a complainant begins a presentation by telling the Antitrust Division that a royalty rate is "excessive," the staff responds that the complainant is putting the cart before the horse. A complaining party must first identify some anticompetitive conduct beyond a mere unilateral refusal to license and beyond the mere attempt to charge, where a lawful monopoly exists, a monopoly price.

Many situations of standard setting "hold up" can be mitigated by disclosure in the ex ante phase, before the standard is set. For example, if all participants are required to disclose their financial interest in any version of the standard—including any patents they own or are seeking on the technology—other participants can adjust their behaviour accordingly. If a participant agrees to disclose but then fails to do so, it can be liable for breach of contract or fraud. Such liability would hinge on a pattern of breaches, frauds, or other unlawful conduct. If antitrust liability is also contemplated, it would require, in addition, proof of market effects.

Increasingly, standards development organizations are requiring "reasonable and non-discriminatory" (RAND) licensing, which is a partial solution. A difficulty of RAND, however, is that the parties tend to disagree later about what level of royalty rate is "reasonable." It would be useful to clarify the legal status of ex ante negotiations over price. Some standards development organizations have reported to the Department of Justice that they currently avoid any discussion of actual royalty rates, due in part to fear of antitrust liability.[12] It would be a strange result if antitrust policy is being used to prevent price competition. There is a possibility of anticompetitive effects from ex ante license fee negotiations, but it seems only reasonable to balance that concern against the inefficiencies of ex post negotiations and licensing hold up. It is interesting to note that the EU licensing guidelines already address this point: in their Paragraph 225, the guidelines state that firms normally should be allowed to negotiate royalty rates before a standard setting effort, as well as after a standard is set.

Barriers to discussing licensing rates may not be entirely law-related. Some standard setting participants do not want the distraction of considering licensing terms. Engineers and other technical contributors may prefer to leave the lawyers at home and limit discussions to technical issues alone. So there may be powerful incentives to keep the status quo. If that is the case, this may be yet another area where the outcomes can be imperfect but antitrust does not provide a solution.

3. Compulsory licensing

Compulsory licensing is another place where enforcers need to be fully aware of antitrust's limitations.[13] Licensing can be an effective remedy in some contexts; for example, for merger cases, it can serve as a less drastic alternative to a divestiture. But in the first instance, there must be conduct that warrants a remedy—licensing is only a remedy, not a liability theory. And there are practical reasons to tread carefully when considering compulsory licensing: designing and enforcing such licenses is complex and

[12] Standards development organizations have identified *Sony Electronics, Inc. v. Soundview Technologies, Inc.*, 157 F. Supp. 2d 180 (D. Conn. 2001), as a case that raises the possibility of antitrust liability for ex ante negotiations. In that decision, a district court refused to dismiss an antitrust claim based on the allegation that standards-setters made a group decision, after a standard had been adopted, to refuse to license a patent and to sue to have the patent invalidated. Although the court refused to dismiss the antitrust claim in an initial pretrial ruling, it later dismissed the claim when the patent was found to be invalid.

[13] See Delrahim M. (2004): "Forcing Firms to Share the Sandbox: Compulsory Licensing of Intellectual Property Rights and Antitrust", address before the British Institute of International and Comparative Law, 10th of May 2004, at http://www.usdoj.gov/atr/public/speeches/203627.pdf.

can be an invitation to endless ancillary compliance litigation. As explained in the *Trinko* case, an enforcement agency should not impose a duty to deal that it cannot reasonably supervise, since this risks assuming the day-to-day controls characteristic of a regulatory agency. For these and other reasons, compulsory licensing of intellectual property as an antitrust remedy should be a rare beast.

4. "Excessive patenting" and patent enforceability

There has been much talk in recent years, and perhaps worldwide, about whether there is a problem of "excessive patenting," meaning patents being granted too easily or in too great a number. Of course, it is the job of the US Patent and Trademark Office in the Department of Commerce—not the Department of Justice—to make and regulate awards of patent rights. The PTO has mechanisms for reconsidering specific patents and hearing complaints about the patent system as a whole, and it employs untold hundreds of patent experts. The Federal Trade Commission, an independent agency, has issued a useful report on possible improvements to the patent system.[14] The National Academies have also issued a report.[15]

It is open to question whether antitrust analysis, which is specific and effects-based, can be applied to a question as broad as "excessive patenting." To know whether patenting is excessive, we would first have to make a conclusion about the "but-for" world. If fewer patents were granted, would innovation have decreased? Would firms have reduced their research and development in areas that currently are covered by patents, and would the result have been fewer benefits for consumers? Antitrust enforcement is not well suited to answering such questions. These questions should be directed, instead, to the patent authorities or to legislators.

Of course, this point must not be overstated. Part of the patent system is court review of patent enforceability.[16] In the appropriate case the Antitrust Division will examine enforceability and, if necessary, challenge the validity or scope of a patent as part of an antitrust claim. This is not necessary where a patent-related practice will be lawful (or at least, does not violate the antitrust laws) or unlawful regardless of the patent's enforceability. But if the conduct would have violated the antitrust laws in the absence of patent rights,

[14] FTC (2003): *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*, text available at http://www.ftc.gov/os/2003/10/innovationrpt.pdf .

[15] National Academy of Sciences (2004): *A Patent System for the 21st Century*, available at http://books.nap.edu/catalog/10976.html .

[16] Although the terms are often used interchangeably, "enforceability" is a broader concept than "patent validity." Patents may be unenforceable against a particular alleged infringer for many reasons, including lack of validity, lack of infringement, fraud in the procurement of the patent, misuse, and other inequitable conduct.

is difficult to address fundamental questions about the but-for world—here, meaning the world that would have existed without the allegedly anticompetitive patent-related practice—unless one knows whether the patent owner could have won an infringement claim. If the patent is valid, all entry before its expiration is a competitive "gift," but if it is invalid, any delay in entry due to threatened patent enforcement is a competitive harm. Just three months ago, an appellate court asserted this need to examine the but-for world in a case involving the antitrust analysis of a patent settlement. According to the court, it is impossible to measure a patent settlement's effect on competition unless one first makes a conclusion about the validity and enforceability of the patent.[17] A petition for rehearing in that case is pending.

5. IP rights and market power

Last on my list of specific issues is the concept of market power. Intellectual property cannot be *presumed* to establish market power. While intellectual property grants exclusive rights, these rights are not monopolies in the economic sense: they do not necessarily provide a large share of any commercial market and they do not necessarily lead to the ability to raise prices in a market. A single patent, for example, may have dozens of close substitutes. The mere presence of an intellectual property right does not permit an antitrust enforcer to skip the crucial steps of market definition and determining market effects.

In the view of the Department of Justice and the Federal Trade Commission, the idea that IP rights cannot be presumed to create market power is a settled question. Interestingly, however, there is still some debate in courts that decide private party antitrust claims. In the January 2005 case *Independent Ink*,[18] the Federal Circuit—which handles all direct patent appeals in the United States—held that Supreme Court precedent[19] compelled it to conclude that a patent *does* raise a presumption of market power in an IP tying case. But even the Federal Circuit disagreed with the presumption; in fact, the Federal Circuit's opinion invited the Supreme Court to reverse. The patentees in this case filed a petition for Supreme Court review. If the Supreme Court agrees to take the case, it would provide a good opportunity to settle the question once and for all.

Many other IP issues arise at the competition law interface. With respect to patent pools, the Antitrust Division has issued several "Business Review

[17] See *Schering-Plough Corp. v. Federal Trade Commission*, 402 F.3d 1056 (11th Cir. 2005).

[18] *Independent Ink, Inc. v. Illinois Tool Works, Inc.*, 396 F.3d 1342 (Fed. Cir. 2005).

[19] See, e.g., *Jefferson Parish Hospital Dist. No. 2 v. Hyde*, 466 U.S. 2, 16 (1984); *International Salt Co. v. U.S.*, 332 U.S. 392 (1947).

Letters" analyzing proposed licensing arrangements.[20] Package licensing, bundling, and tying all receive some coverage in our *Guidelines*. Our general approach is to avoid rigid tests and instead rely on a review of the likely economic effects to the marketplace as a whole, both in the short term and over the long term, factoring in incentives for pro-competitive innovation. Both IP law and competition law seek to maintain dynamic, robustly innovative markets far into the future, and to that end they properly are willing to tolerate—or rather, offer the inducement of—a degree of private reward and market power in the present day.

D. Conclusion

We have made great strides in the United States in bringing sound economics to the antitrust analysis of intellectual property. Europe is doing the same with the newly revised Technology Transfer Block Exemption and its accompanying licensing guidelines, both of which embrace an effects-based analysis for licensing transactions.[21] We have experienced significant international convergence in this area and we have every reason to expect more of the same. While some differences remain between the US, the EU, and our other important trading partners, the general trend toward convergence is continuing.

[20] Letter from Joel I. Klein, Assistant Attorney General, U.S. Dep't of Justice, to Carey R. Ramos, Esq. (June 10, 1999), *at* http://www.usdoj.gov/atr/public/busreview/2485.pdf; Letter from Joel I. Klein, Assistant Attorney General, U.S. Dep't of Justice, to Garrard R. Beeney, Esq. (Dec. 16, 1998), *at* http://www.usdoj.gov/atr/public/busreview/2121.wpd; Letter from Joel I. Klein, Acting Assistant Attorney General, U.S. Dep't of Justice, to Garrard R. Beeney, Esq. (June 26, 1997), *at* http://www.usdoj.gov/atr/public/busreview/1170.wpd .

[21] See Commission publications regarding the TTBE and Guidelines at http://europa.eu.int/comm/competition/antitrust/legislation/entente3_en.html#technology.

II

Ian S. Forrester, QC[*]

Regulating Intellectual Property Via Competition? Or Regulating Competition Via Intellectual Property? Competition and Intellectual Property: Ten Years On, the Debate Still Flourishes[1]

A. Are Intellectual Property Rights Special?

The protection of intellectual property has a long tradition. Exclusive rights, the precursors of patents, were granted to inventors in fifteenth century Venice. It was also Venice that granted John of Speyer, its first printer, the exclusive right to produce multiple copies of a document by using a printing press method in 1469. In the sixteenth century England, Germany, France and the Netherlands all had a patent system. The English Statute of Monopolies adopted in 1624 was the first written law that provided for the grant of monopoly for an invention for a limited period of time. (King James's goal was revenue-raising rather than truly stimulating innovation, however.) The Statute of Anne of 1710 gave authors exclusive powers to reprint a book for 14 years after it was first published. The English tradition of intellectual property protection was inspiration for the drafters of the US Constitution, which explicitly[2] empowered the Congress to adopt laws for protection of intellectual property.[3] The basic principles of copyright and

[*] Queen's Counsel at the Scots Bar, Visiting Professor, University of Glasgow; White & Case, Brussels. Warm thanks are expressed to Katarzyna Czapracka and others for their contribution to this paper. The opinions expressed are wholly personal. I have been an advocate in several cases mentioned herein, notably the compulsory licensing cases, *Magill*, *IMS* and *Microsoft*. *Microsoft* is still pending before the European Courts.

[1] Since this is the tenth session convened in the agreeable surroundings of the European University Institute, I wish to honour Claus-Dieter Ehlermann, the progenitor of this series of debates, by congratulating him on achieving a rich contribution to legal scholarship.

[2] "The Congress shall have Power To lay and collect Taxes, Duties, Imposts and Excises, to pay the Debts and provide for the common Defense and general Welfare of the United States; but all Duties, Imposts and Excises shall be uniform throughout the United States; [. . .] To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries;", US Const. art I, § 8, cl. 8.

[3] For various points of related interest, see Idris K (2003): *Intellectual Property—A Power Tool for Economic Growth,* World Intellectual Property Organisation, Geneva, pp. 11–15.

patents were codified in international treaties concluded in the nineteenth century.[4]

The rise of intellectual property as a recognised phenomenon coincides with industrialisation and economic development in general. Intellectual property protection should indeed encourage initiative, investment and risk-taking, the driving forces of economic progress. Inventors and authors favour being given some exclusive rights, allowing them to stop commercial exploitation by other parties. In 1593, Galileo Galilei applied to the Venetian Republic for a patent on the modest grounds that "*. . . it does not suit me that the invention, which is my property and as created by me with great effort and cost, should become the common property of just anyone. . .*".[5]

The development of intellectual property rights has been so intertwined with the development of technology and society that historians will normally find the strongest intellectual property regimes in the more advanced economies. In the twentieth century, the immense changes in technology required commensurate changes in the intellectual property regimes covering them. It seems almost certain that in the absence of copyright the computer and software industries would have developed very differently. The growing importance of "knowledge-based" industries and the shift of traditional manufacturing industries to low cost countries have strengthened the demand for intellectual property protection in the developed countries. Changes were necessary both to increase private investments in research and development, and to accommodate the technological revolutions in information and communication, biomedical research, artificial intelligence and virtual marketing over the internet.

Developments in copying and information technologies were matched by legal developments to respond to their implications. In 1776, Adam Smith wrote that the labour of actors and musicians is "*like that of menial servants, unproductive of any value, and does not fix or realize itself any permanent subject, or vendible commodity, which endures after that labour is past, and for which an equal quantity of labour could afterwards be procured.*"[6] Nowadays, the performing artists and entertainment industry make millions from sales of the physical "fixation" of performances. Their profits largely depend on the existence of the performing artists' rights. Digital technologies brought new dangers to intellectual property: copying is now cheaper and easier than it has ever been in history. With a few clicks of a mouse a teenage computer

[4] The Berne Convention for the Protection of Literary and Artistic Works of 1886 (full text available at http://www.wipo.int/treaties/en/ip/berne/trtdocs_wo001.html) and the Paris Convention for the Protection of Industrial Property of 1883 (full text available at http://www.wipo.int/treaties/en/ip/paris/trtdocs_wo020.html).

[5] Cited by Lehmann M. (1989): "Property and Intellectual Property—Property Rights and Restrictions on Competition in Furtherance of Competition", 20 *International Review of Intellectual Property and Competition Law* 1, at p. 8.

[6] See Smith A. (1776): *The Wealth of Nations*, Book 2, Chapter III, Oxford, Clarendon Press.

enthusiast can make perfect digital copies of a song or a movie, and electronically distribute them to a friend, a school or the world in general. The strengthening of intellectual property protection that has taken place over the last 20 years can be seen as an attempt, often unsuccessful, to stem the tide. So, in my submission, IP rights are indeed special; and their special features present particular antitrust challenges.

B. Modern Rights Have Emerged Legislatively, Not Judicially

It seems not to be seriously disputed that strong intellectual property rights encourage economic development. That principle is easy to state. In Europe, there has been a perpetual anxiety about the possibility that investment in high technology, skilled jobs in R&D and other agreeable consequences of encouraging modern industries would move westwards to North America if the intellectual property climate in Europe were inclement. The European Commission recognised the role of intellectual property laws as an important element of the institutional infrastructure for encouraging private investment in research and development. Inadequate IP rights were targeted in Lord Cockfield's 1992 Programme to achieve the single market. Community legislative initiatives in the 1990s led to increasing the term of copyright protection to 70 years *post mortem auctoris*,[7] lengthening the term of patent protection for medicinal products,[8] and making high standards of protection of semiconductors,[9] software,[10] databases,[11] and biotechnological inventions,[12] mandatory for all Member States. The latest initiative is the adoption of the Directive on enforcement of intellectual property rights, obliging the Member States to toughen remedies and penalties against those engaged in counterfeiting and piracy.[13] This latest Directive is indicative of the importance attached to the protection of intellectual property rights: it is truly institutionally exceptional when the Community acts through secondary

[7] *Council Directive 93/98/EEC of 29 October 1993 harmonizing the term of protection of copyright and certain related rights*, OJ L 290 [1993].

[8] *Council Regulation 1768/92/EEC of 18 June 1992 concerning the creation of a supplementary protection certificate for medicinal products*, OJ L 182 [1992].

[9] *Council Directive 87/54/EEC of 16 December 1986 on the legal protection of topographies of semiconductor products*, OJ L 24 [1987].

[10] *Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs*, OJ L 122 [1991] (the "Software Directive").

[11] *Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases*, OJ L 77 [1996].

[12] *Directive 98/44/EC of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions*, OJ L 213 [1998].

[13] *Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights*, OJ L 195 [2004].

legislation to harmonise substantive and procedural rules on remedies and sanctions at the national level, a sensitive matter.[14]

These various measures have introduced many innovative solutions that in some cases have served as the benchmark for IP protection measures adopted in other countries. The Database Directive introduced a 15-year *sui generis* right to protect the contents of a database against improper extraction. Prior to the adoption of the Directive such right existed only in Denmark.[15] The Biotechnology Patent Directive introduced similar innovative solutions to the problems encountered by biotech companies whose creative efforts satisfied the other criteria for patentability as to living matter, but were not patentable because of positions of principle adopted by national law (on the theory that living things, being the works of God, were incapable of being invented). The Software Directive was a world first. It introduced an unprecedented and uniform level of protection for computer programs throughout all the Member States. In essence, the new legislation confirmed that computer software, a purely utilitarian work, should be protected using the same legal principles as traditional literary works, not by a *sui generis* regime. It also contained the first definition of the otherwise infringing acts to which the right holder could not object where, in defined circumstances, the legitimate possessor of software could use it to determine characteristics of software interfaces.

These developments in Europe corresponded to the general trend to create stronger and broader intellectual property rights, to cover new types of subject matter, and to increase the duration of intellectual property rights. By the early 1990s the patentability of software was well established as a result of US court judgments, and in 1996 the USPTO issued Final Computer Related Examination Guidelines, which clarified the conditions for issuing software patents. The Sonny Bono Copyright Term Extension Act of 1998 extended the term of copyright by 20 years, thus matching EU standards.

The WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) signed in 1994, obliges WTO members to apply minimum conditions with respect to copyrights, trademarks, geographical indications, industrial designs, patents, topographies of integrated circuits, and trade secrets. The WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonogram Treaty (WPPT) adopted in December 1996 grant global protection from electronic piracy to writers, artists, and other creators of copyrighted material.

We can thus observe more and more forms of human creativity giving rise to an alleged need for more and more refined forms of intellectual property protection. Governments are usually sympathetic in principle to requests by

[14] The only other area so far where this has happened may be public procurement.

[15] Vinje T. (1995): "Harmonising Intellectual Property Laws in European Union: Past, Present and Future", 17 *European Intellectual Property Review* 366.

employers/investors/innovators to protect them against unfair competition. However, every proposed right is likely to have potential "victims" or economic rivals who complain. The process of legislation is often as controversial as litigation. The adoption of several new pieces of IP right was associated with quite bitter debate about the likely consequences of the new right for the balance between protecting IP and protecting the competition process. Meetings of the Legal Affairs Committee considering the Software Directive in 1990 were memorable for the pushing and shoving (literally!) between Members of the European Parliament.[16] This is by no means unique to Europe: the proposal to institute patent protection for medicines in India provoked mass demonstrations.

So my second observation is that the greater rights accorded the creators of IP have emerged from the legislative rather than the judicial process. The officials and parliamentarians involved have been made fully aware of the economic and intellectual interests at stake, and probably tried to please as many conflicting interests as possible.

C. The Potential Universality of the Asset

One of the charms of these European University Institute gatherings is that we have the chance to reflect soberly on policy rather than merely cases. IP rights are an excellent current topic, especially since the Commission's competition Directorate General has had a hand both in drafting the legislation and in enforcing the antitrust rules in individual cases.

The challenge for antitrust law as to intellectual property is to craft a regime which establishes constraints on IP owners which are predictable, rational and not discouraging. The challenge is specially delicate in the case of IP. From 1962 to 1990, in the early period of European competition law, we can now see that the constraints were rather too severe and that targets were not always well-chosen. The new legislative rules incorporate in many cases remedies specific to the dangers which were identified in the process of debate. We could compare these constraints to the constraints imposed via servitudes on the owners of a piece of land: ownership is burdened by certain duties of toleration or non-obstruction of the legitimate actions of neighbours.[17]

A curious House of Lords case in 1895[18] presented a nice question about constraints upon the rights of landowners. Bradford Corporation attempted to prevent a local landowner from digging his land in such a way as to pollute

[16] See further at *infra* Section E.

[17] See Rodger A. (1972): *Owners and Neighbours in Roman Law*, Oxford, Clarendon Press.

[18] *Mayor of Bradford v. Pickles*, [1895] AC 587.

underground water feeding the city's main reservoir. His purpose was ostensibly to excavate for flagstone, but it was alleged that he was doing this as a way to force the Corporation to pay an inflated price for buying his land. The mean-spirited landowner prevailed. Lord Watson thunderously stated "No use of property, which would be legal if due to a proper motive, can become illegal because it is prompted by a motive which is improper or even malicious".

One hundred years after Lord Watson, DG IV and its successor DG Competition would be perfectly confident that the dominant holder of an IP asset or any other asset would act illegally if it were to pursue a malicious or improper motive in exploiting its property.

The state creates the IP right as a matter of its own positive initiative, whereas in the case of corporeal property the state will merely regulate what is already owned. Now, only one person at a time can consume a corporeal asset like an apple or a steak. If the owner of a house invites visitors, the capacity of the house to be enjoyed is unchanged. When the visitors have admired the garden and left the owner in peace, the house remains his. The visitors neither make the house bigger nor carry bits of it away.

By contrast, ideas, processes and formulae can be shared infinitely with many people. I can use and improve on an idea without having any physical or legal control over it. My use of an idea does not deplete it or interfere with the ability of others to use it.[19] A person who already possesses a piece of information has no incentive to pay to possess it a second time. An individual cannot lose information by transmitting it. Information can be transmitted from one buyer to another very cheaply. Intellectual property is not consumed by usage. It can be shared. It can be assigned. It can be licensed. It can be misappropriated. [20] It can easily be expropriated by a public authority.

These features of intellectual property make it easy to suggest that its owner is being greedy and that any encroachment on his right will not be very

[19] See Rommer P. (2002): "When Should We Use Intellectual Property Rights", 92 *The American Economic Review* 213.

[20] As summarized in the FTC report from the 2002 hearings in Washington on the balancing of competition principles and IP principles:

> "[. . .] Problems of copying by third parties make it generally more difficult for holders of intellectual property to exclude others from its use than it is for holders of tangible property to do so. Once third parties have learned about an invention, they may copy and use it. Intellectual property is also "non-rivalrous"—that is, many people may use innovative technology, and they all may use it without diminishing others' ability to use it. Many people may employ an innovation without depletion, and it is hard to identify and prevent those who will not pay for its use from using it. In such circumstances, investors are unlikely to have sufficient incentives to pursue and produce their inventions. . . . To preserve incentives to invent, patent policy protects inventors from such misappropriation. . . ."

Federal Trade Commission (2003): *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*, available from: http://www.ftc.gov/os/2003/10/ innovationrpt.pdf, Chapter 1, at pp. 5–6.

painful. On this theory, the government having given, the government can dilute what it gave; and the owner still has what the state gave him in the first place. Thus the effective "taking" of intellectual property by the government might seem less intrusive than the classic expropriation of a piece of land. But the right to restrict the unwelcome activities of others is all that the IP owner enjoys. So allowing my neighbour to cross my garden with his horse may be less of an encroachment on my interest than ordering me to license my IP right.

D. Do Special Features of Intellectual Property Rights Warrant a Different Treatment in Competition Law?

Should intellectual property rights be less respected than rights to tangible property by competition law or other laws? No, would be the likely answer to that question at a legal gathering. The debate would relate to individual controversies rather than general principles.

The European Commission is clearly aware of the importance of private investment in research and development.[21] Over-eager expansion of antitrust liability theories may, so it is argued, reduce incentives to innovate,[22] and the Commission's awareness of this phenomenon explains in part the Technology Transfer Block Exemption Regulation.[23] In my personal view, the link between the availability and quality of IP rights and investment is clearest in the pharmaceutical industry.

[21] See European Commission (2003) *Communication on Investing in Research: An Action Plan for Europe*, COM(2003) 226 final/2, available from: http://europa.eu.int/eur-lex/en/com/cnc/2003/com2003_0226en02.pdf . The objective set by the March 2002 Barcelona European Council is to increase the average research investment level from 1.9% of GDP (current levels) to 3% of GDP by 2010, of which 2/3 should be founded by the private sector). The action plan calls *inter alia* for "improving the environment of research and technological innovation in Europe: intellectual property protection, regulation of product markets and related standards, competition rules, financial markets, the fiscal environment, and the treatment of research in companies' management and reporting practices." (European Commission, 2003, 4, 10). The Commission boasts that "*the recent overhaul of EU anti-trust law gives more emphasis to economic assessment*" (European Commission, 2003, 23) and stresses that innovation considerations should take prominent part in antitrust analysis.

[22] See European Commission *Staff Working Paper: Investing in Research: an Action Plan for Europe* SEC(2003) 489, Brussels, available from: http://europa.eu.int/comm/research/era/3pct/pdf/com2003-annex.pdf, which mentions competition policy as one of the major policies influencing the environment for innovation (European Commission, 2003, 17–18). The Federal Trade Commission reached the same conclusion in its Report "To Promote Innovation: the Proper Balance of Competition and Patent Policy", *op. cit.*, Chapter 1.

[23] *Commission Regulation (EC) 772/2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements*, OJ L 123 [2004].

The interrelationship between intellectual property rights and competition law has been an interesting theme for antitrust enforcers, practitioners and academics in recent years.[24] There is no doubt that the strengthening of intellectual property rights is not universally welcomed and antitrust laws are often seen as a potential remedy that could be used to reverse this trend. Thus, arguments based on antitrust law are more and more often used in intellectual property litigation. The question of whether the recording industry may have violated antitrust law was raised in the *Napster* case, [25] one of the first cases about the sharing of songs over the internet. The litigious enterprise was facilitating copyright infringements: the antitrust defence was not successful.

One easy criticism against intellectual property is that it creates "monopolies". Hence, the popular notion was that intellectual property law and competition law are in conflict, as competition law is naturally unsympathetic to monopolies. Intellectual property rights are intangible, but the exclusive rights of their owners are in principle not different to my rights to exclude others from using my house. Intellectual property does not secure market power, but a right to exclude, just as the law of trespass does with real property.[26] The right to forbid others from engaging in certain actions does not necessarily lead to monopoly power. The bundle of rights conferred can be a means of converting human creativity into a vendible commodity.[27] It is not the product itself, but the idea behind it, the way the idea is expressed, or the distinctive way the product is named and described.

Patents, which confer the exclusive right to make, use or sell the invention covered by the claims of the patent, are the intellectual property rights which can be most plausibly characterised as a monopoly. The effect that a patent may have on the market must be analysed in connection with the product in which it is embodied. It is not often the case that the patented invention constitutes the whole relevant market, though the argument is often made. Patented goods and processes commonly compete with each other and with unpatented goods and processes.

Other intellectual property rights confer less market power. Trademarks, which protect commercial identity, can hardly be characterised as conferring a monopoly power, though competition law has recognised their importance

[24] Reference is made to the Joint Hearings of the Department of Justice and FTC, *Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy*, 2002, available from: http://www.ftc.gov/opp/intellect/index.htm; the FTC Report *To Promote Innovation . . ., op.cit.,* and the Comments received by the European Commission in relation to the *Draft new block exemption regulation and draft guidelines on the application of Article 81 to technology transfer agreements,* available from: http://europa.eu.int/comm/competition/antitrust/technology_transfer_2/.

[25] See Borland J. (2000): "Napster lawyer turns antitrust experience on RIAA" (2000), available from: http://news.com.com/2100-1023-243394.html?legacy=cnet.

[26] See Easterbrook F. (1990): "Intellectual Property Is Still Property", 13 *Harvard Journal of Law and Public Policy* 108.

[27] See Gordon W. J. (1994): "Assertive Modesty: An Economics of Intangibles", 94 *Columbia Law Review* 2579, at note n. 1.

in the market. Copyright protection does not attach to ideas or discoveries and does not prevent competitors from creating works with the same functional characteristics: there are numerous crime stories, romantic comedies and pop songs built around similar concepts.[28]

Having or not having patents does not present the choice of monopoly versus competition. Economists speak of "dynamic effects", long-term changes in the market as opposed to "allocative losses". In plainer language, the lure of future profits induces private investment in research and development and spurs innovation. Innovation means better products and more choice for consumers, and possibly lower prices. There is usually a sacrifice in the short term for the benefit of the long-term perspective. Protecting the inventor may often mean a higher price level in the short term. Indeed, "static efficiency" considerations (what would be best today if other considerations were ignored) would mandate that intellectual property rights be given minimal protection. However, weak intellectual property protection may discourage investment in research and development, reduce innovation and thereby harm dynamic efficiency.[29]

Consider a low-cost car manufacturer who produces small and medium-sized cars and sells them at very low prices. The customers should be happy enough. But the specific models change very rarely (like the Trabant, that East German icon of quirky socialism). There is a static and frozen satisfaction of a "demand". Consider now a car manufacturer of the same category of small and medium-sized cars who sells at higher prices but invests heavily in R&D, produces new models every five years, and integrates new functionalities such as an integrated mobile telephone communication system or a GPS navigation system. Clearly, the second car manufacturer would serve the specific technical needs (or the vanity – if you like) of its customers. The first would make its customers happy only in their pockets. Why not penalise the second producer by estranging him from his intellectual property rights and by allowing the first one to free-ride on the former's innovation? An intervention of this kind would have some short-term benefits from an allocative efficiency point of view (in plain terms, prices would fall), but it would harm dynamic efficiency and medium and long-term consumer welfare. I am not an economist, but I believe that this framework of analysis has been accepted by the competition authorities.

The view prevailing nowadays is that both antitrust and intellectual property rules, by honouring innovation, create incentives to introduce new products.[30]

[28] See Kitch E. (2002): "Elementary and Persistent Errors in the Economic Analysis of Intellectual Property", 53 *Vanderbilt Law Review* 1729.

[29] See Easterbrook, *supra* n. 27, at p. 108.

[30] The Technology Guidelines (*Commission Notice—Guidelines on the application of Article 81 of the EC Treaty to technology transfer agreements*, OJ C 101 [2004]) recognise that, generally, intellectual property and competition law are not in conflict; on the contrary: "both bodies of law

E. The Limitations on the Scope of the Right

Intellectual property rights do not give unlimited protection against copying. Their duration is limited (trademarks are perpetual), and they protect only certain aspects of the work or invention. Abstract ideas are not patentable. A patent extends only to commercial exploitation of the protected invention. Protection of trademarks is limited to their commercial use. Copyright protection covers the form alone, but not the ideas underlying the work.

The Software Directive explicitly provides that this principle is applicable also to computer programs.[31] The latter is also a good example of how competition principles were taken into account in the drafting of intellectual property legislation. The basic principle is that any reproduction, even for a milli-second, of a computer program is an act requiring the consent of the right-holder. However, the right-holder should not have the power to block the emergence of interoperable programs. As a result, the licensee (programs are distributed by licence, not by sale) is given the right in carefully-defined circumstances to perform a research technique involving reproduction called decompilation. The decompilation exception is limited to the minimum which is necessary to achieve interoperability: it can only be invoked by a licensed user or by someone else acting on his behalf, the required information must not be already readily available, programs that are not necessary to achieve interoperability must not be decompiled, and the information obtained must not be used to develop, produce or market a program which infringes copyright in the decompiled program. The scope of the decompilation exception was the subject of intense debate, but the compromise reached, as the Commission recognised in 2000, has had the effect in practice that the information required for establishing interoperability is made available.[32]

Competition concerns have arisen in relation the proposed directive on the patentability of computer-implemented inventions (often called the Software Patent Directive). When the Commission announced the proposal in 2002, it explained that "*the proposal aims to avoid stifling competition, hampering*

share the same basic objective of promoting consumer welfare and an efficient allocation of resources. Innovation constitutes an essential and dynamic component of an open and competitive market economy. Intellectual property rights promote dynamic competition by encouraging undertakings to invest in developing new or improved products and processes. So does competition by putting pressure on undertakings to innovate. Therefore, both intellectual property rights and competition are necessary to promote innovation and ensure a competitive exploitation thereof."

[31] See Article 1(2) and Recitals 13 and 14 of the Software Directive.

[32] See European Commission, *Report from the Commission to the Council, the European Parliament and the Economic and Social Committee on the implementation and effects of Directive 91/250/EEC on the legal protection of computer programs*, COM(2000) 199 final, available from: http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/com/2000/com2000_0199en01.pdf.

small businesses or preventing the development of interoperable software". This balancing is achieved *"by distinguishing between different types of inventions. Those whose operation involves the use of a computer program and which make a 'technical contribution'—in other words which contribute to the 'state of the art' in the technical field concerned—would be eligible for patents."*[33] The Commission's proposal triggered a pan-European debate on "software patenting". Many different pressure groups have lobbied for or against excluding the possibility of patenting software-related inventions.[34] Such lobbying efforts very often touch upon arguments based on antitrust law, or even pending antitrust proceedings.[35] The Directive has not yet been adopted, and its future is uncertain.[36] The Software Patent Directive is not the only example of pursuing a competitive advantage in lobbying against a piece of legislation on the grounds that it has something to do with a separate antitrust controversy.[37] The Commission is doing its best against noisy opposition to clarify the reasonable and modest goal of the legislation: to confirm that inventions otherwise eligible for patenting would not be denied a patent merely because they involved software.

[33] See European Commission *Patents: Commission proposes rules for inventions using software* (2003), available from: http://europa.eu.int/comm/internal_market/en/indprop/comp/02-277.htm..

[34] A good example of such lobbying efforts is the conference 'Free Software and Software Patents' organised by the Greens/ European Free Alliance at the European Parliament on 2 June 2005. The programme of the conference sent to Members of the European Parliament encouraged them to take part in a demonstration against software patents organized by Association Electronique Libre and Open Standaarden, which was planned after the conference.

[35] Commenting on a hearing on the Software Patents Directive in the European Parliament's legal affairs committee, Green MEP for Austria Eva Lichtenberger said:

> "Consumer rights are now coming to the foreground of the debate on software patenting. On the question of interoperability especially, the compatibility of devices and programmes made by different producers is of crucial importance. Consumers often have big problems when trying to operate programmes on another producer's operating system or to combine devices made by different producers. The problem is that interoperability needs an interface that enables smooth communication between different devices and programmes . . . For such interfaces software from the different producers is needed, yet if the interface is protected by patents, it is easy to set the users fee so high that it becomes practically impossible to use. In this way consumers are being forced to buy products from only one producer, thus enhancing the company's market-dominating position. There is a legal battle already underway between the European Commission and Microsoft to fend off a market-dominating position."

[36] The legislative debate on the Software Directive has been outlined by Bray R. (2005): "The European Union 'Software Patents' Directive: What Is It? Why Is It? Where Are We Now?", *Duke Law & Technology Review* 11, text available from: http://www.law.duke.edu/journals/dltr/articles/2005dltr0011.html.

[37] For example, generic drug manufacturers have taken lobbying action in connection with legislation on access to otherwise secret clinical data, aimed at speeding up their market access by reducing the rights of the original developers of a medicine.

F. Stretching the Rights Beyond the Limits of the Law

Resolving the relations between intellectual property and antitrust must inevitably address questions pertaining to the process of obtaining the protection and whether it is justified. Often competition problems arise when intellectual property rights are abused, for example if there are many questionable patent applications designed to create a thicket of uncertain scope primarily to preclude competitive challenges, or if patent or regulatory procedures are abused to lengthen the term of protection.[38]

In the US, where the intersection of intellectual property and antitrust has been examined in great detail by the courts and enforcement agencies, the abuse of patent procedures or sham litigation are typical cases where antitrust intervention would be permitted. Indeed, the view of some courts is that it is the only case where antitrust intervention is permitted.[39]

In Europe, most of the cases where the conflict between antitrust and intellectual property has been analysed involved questionable intellectual property rights. I have pointed out in various articles that the compulsory licenses in *Magill* and *IMS* could be seen as exceptional correctives for the consequences of invoking aberrant national rights in a manner which foreclosed competition. It would seem reasonable to expect that the competition rules would be invoked more readily where the underlying rights are weak or unorthodox. However, the question of whether the competition rules do or should treat "five-star" and "one-star" IP rights differently is not yet settled.

Perhaps a better example would be the proceedings in which the European Commission accuses AstraZeneca of abusing its dominant position by misusing patent and other regulatory procedures.[40] The Commission claims that AstraZeneca made misrepresentations before patent offices in order to obtain extra protection in the form of supplementary protection certificates (SPCs) for its anti-ulcer drug Losec. According to the Commission, AstraZeneca concealed the date on which it first received marketing authorisations for Losec. Without the misrepresentations, says the Commission, AstraZeneca would not have obtained the extra protection which supposedly

[38] See Pitofsky R., "Antitrust and Intellectual Property: Unresolved Issues at the Heart of the New Economy, Antitrust", paper prepared for the Technology and Intellectual Property Conference, 2 March 2001, Berkeley Center for Law and Technology, University of California, Berkeley, available from: http://www.ftc.gov/speeches/pitofsky/ipf301.htm.

[39] *CSU, L.L.C. v. Xerox Corp. (In re Independent Serv. Orgs. Antitrust Litig.)*, 203 F.3d 1322 (U.S. App., 2000).

[40] Case COMP/37.507—*Generics/AstraZeneca*. See European Commission Press release, "Commission warns AstraZeneca of preliminary findings in Losec antitrust investigation", IP/03/1136, available from: http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/03/1136&format=HTML&aged=0&language=EN&guiLanguage=en.

allowed it to block the arrival of generic versions of Losec. AstraZeneca replies that the law was not clear and that its interpretation was legitimate.

G. Special Problems

Some characteristics of intellectual property have a tendency to single-firm dominance. Products and services based on intellectual property are usually characterised by large initial investments and low costs to reproduce individual items. Once a computer program is developed and introduced, the cost of duplicating the computer code is negligible. The cost of bringing a new medicine to the market ranges from $400 to $800 million.[41] The marginal costs of producing each tablet are modest[42] compared to the necessary investment in the research. Since the cost of producing additional items is so low, sellers can easily expand sales and the price in the short run often declines. Competition to obtain intellectual property and to expand sales is therefore more important in such industries.

Intellectual property protection granted to companies to encourage the initial investments may preclude competition for a period of time. Products and services based on intellectual property are very often characterised by '*network effects*'.[43] The combination of the high initial investment, intellectual property rights, and network effects very often leads to dominance in a market. Joseph Schumpeter has argued that monopoly provides a spur to innovation because the monopolist could amass full gains from invention and invest more in research and development. He suggested that improvements accrued by innovation produce consumer benefits that dwarf any reduction in competition.[44] Indeed, bigger firms have the necessary resources to innovate: they are able to spread the costs of innovation across a larger output base, accelerate the implementation of new innovations, and diversify risks.[45] Likewise, antitrust is not opposed to market power, as such, if it is necessary to achieve efficiencies, and respects the need for incentives for investment in

[41] See DiMasi J., Hansen R. and Grabowski H. (2003): "The Price of Innovation: New Estimates of Drug Development Costs", 22 *Journal of Health Economics* 151.

[42] Though higher than used to be the case because of the intense regulatory controls on production.

[43] The value for potential customers of a good or service that possesses a network effect depends on a number of customers already owning that good or using that service. The classic example is communications equipment, e.g. telephone, fax, instant messaging, but also credit cards. The more users carry a credit card, and the more shops or restaurants that accept it, the more attractive it becomes, and the more sensitive become the terms upon which the card is issued.

[44] See Schumpeter J. (1942): *Capitalism, Socialism and Democracy,* London, Rutledge.

[45] See Pitofsky, *supra* n. 39.

research and development. If a firm builds market power through innovation, investment and marketing activities, this is perfectly legal.[46]

Market power is less durable in markets characterised by a high level of innovation, and thus by dependence on intellectual property rights. It is highly unlikely that any dominant firm will still be dominant in a number of years. IBM dominated the mainframe market in the 1970s and 1980s, but today is currently just one player in the hardware market. Atari and Commodore, pioneers in the personal computer and video game systems market in the 1980s, have virtually vanished from the scene.[47] Making reliable predictions about the course of future events in markets characterised by a high level of innovation is impossible. For this reason, enforcement officials must make sure their remedies do not bring innovation to a standstill. As I have noted on another occasion, regulators often get it wrong, and certainly they are not right all the time. Sadly, we cannot expect competition law enforcers to be better than anyone else at identifying what will be the consequences of regulatory interventions. The conclusions of the well-informed and well-intentioned may be completely wrong.[48] This is especially true for markets where rapid changes are taking place. Steven Wallman, a former Commissioner of the US Securities and Exchange Commission, arguably the world's premier market regulator, noted the dangers:

> "Any regulator runs the risk of building on what had been a good foundation but, due to shifting fault lines, is now quite unstable [. . .] A detailed, incremental regulation fails when the underlying economics or competitive context, or the technology itself, moves other than in slow incremental steps."[49]

He further noted:

> "Frequently, criticism is levelled at regulators' concrete failure to protect someone who is hurt, rather than for precluding something new or experimental that might —although no one is sure—have led to a better world. Consequently, regulators opt for specific and detailed rules that constrain behaviour and channel activities to what is known and safe. One is criticised for the mistakes others see, not for the

[46] See Motta M. (2004): *Competition Policy, Theory and Practice*, Cambridge, Cambridge University Press, at p. 35.

[47] Atari started to build home computers in 1979. Over the next decade it released several versions of the basic design introduced in 1979. They were, for their era, one of the most technically advanced machines on the market, but a combination of factors, largely business related, meant they did not have a major market when Commodore's new model of computer was introduced a few years later and took over the entire market. Commodore, an electronics company which was a major player in the 1980s home computer field, went bankrupt in 1994.

[48] See Forrester I. (2000): "Achieving and Safeguarding Conditions for Fair and Efficient Competition", in Ehlermann C.-D. and Gosling L., eds., *European Competition Law Annual 1998: Regulating Telecommunications Markets*, Hart Publishing, Oxford and Portland, Oregon, at pp. 596–599.

[49] See Wallman S. (1998): "Competition, Innovation, and Regulation in the Securities Markets", 53 *The Business Lawyer* 348.

> mistakes barring something new the critics never know about; and no one keeps statistics on the number of good ideas that were never allowed to happen."[50]

Long-term remedies may quickly become obsolete in new technology markets, if not harmful.[51] This has been notably taken into account on the other side of the Atlantic. For example, an FTC settlement with Intel involved an order, whose duration was only 10 years (the usual time is 20 years) due to the fast-changing nature of competition in microprocessor design. The FTC exercised even more caution in the settlement of the proposed AOL/Time Warner merger. The product market alleged to be affected by the merger was broadband internet connections. It was argued that broadband connections would soon be challenged by broadband connections over phone lines (DSL), by satellite and through wireless devices. For this reason, the Commission decided exceptionally to limit the duration of its order to only five years, and even that may prove to be too long.[52]

Everyone agrees that over-eager antitrust intervention in the realm of intellectual property may give rise to problems. The need for special treatment of intellectual property has been recognised by the US enforcement agencies. The FTC and the DOJ jointly developed the US IP Guidelines which explain that:

> "[I]ntellectual property has important characteristics, such as ease of misappropriation, that distinguish it from many other forms of property. These characteristics can be taken into account by standard antitrust analysis, however, and do not require the application of fundamentally different principles."[53]

In the specific context of the abuse of a dominant position, the analysis remains the same. The purpose of intellectual property protection is to provide all firms with incentives to innovate, including the ability to use their innovations to their own competitive advantage and prevent competitors from misappropriating the benefits of their investments in research and development.

Thus, in the US, an antitrust analysis applies to IP rights no more and no less than other property rights, but the important characteristics of the rights must be taken into account in any such analysis. Advocate General Jacobs famously reflected on these issues in his opinion in *Bronner*:

> "[I]n assessing such conflicting interests [between compulsory access to an essential facility and investment incentives] particular care is required where the goods or

[50] See *supra*, at p. 346.

[51] See Pitofsky, *supra* n. 39.

[52] *Idem*. It may be interesting to note that the famous *Microsoft* Decision adopted by the European Commission in March 2004 imposes a perpetual obligation to furnish competitors with details of Microsoft's server technology.

[53] IP Guidelines, para 2.1. Further, the IP Guidelines note that the power to exclude others from the use of intellectual property may vary substantially, and that "[t]he greater or lesser legal power of an owner to exclude others is also taken into account by standard antitrust analysis."

> services or facilities to which access is demanded represent the fruit of substantial investment. That may be true in particular in relation to refusal to license intellectual property rights. Where such exclusive rights are granted for a limited period, that in itself involves a balancing of interest in free competition with that of providing an incentive for research and development and for creativity."[54]

G. EC Competition Law and Intellectual Property: The Perpetual Conflict?

In my St. Gallen paper,[55] I suggested that the application of Article 81 EC to intellectual property, after the new Technology Transfer Block Exemption Regulation and Technology Guidelines, is now less controversial. The reformed European rules are more in line with the US law. Article 82 EC, on the other hand, is currently the source of great controversies.

Compulsory licensing under Article 82 EC is the hottest topic of the moment in competition and IP law. An American commentator puts it in the following terms: "The question of antitrust liability for unilateral refusals to license presents a case of 'true repugnancy' between the antitrust laws and the IP laws".[56] In Europe, this "repugnancy" seems even more evident. At the Fordham Antitrust Conference in October 2004 and at the St. Gallen Conference in April 2005, this subject in general, and the merits of the Commission's Decision in *Microsoft* in particular, were debated by myself and others. I have suggested[57] that there was a divergence between the liberal or minimalist[58] approach which prevails in the US and has recently been celebrated by the Supreme Court in *Trinko*,[59] and the approach of the Commission. In *Microsoft*, the Commission ordered a company to draw up a

[54] Para. 62, Advocate General's Opinion, Case C-7/97 *Oscar Bronner GmbH & Co. KG v. Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG and Others* [1998] ECR I-7791. This echoes similar concerns in the US: *Data General v. Grumman Systems Support Corp.,* 36 F.3d 1147 (1st Cir. 1994), *Eastman Kodak Co v. Image Technical Services,* 504 US 451 (1992) and *In re Independent Service Organizations Antitrust Litigation (Xerox)*, 203 F.3d 1322 (Fed C 2000).

[55] See Forrester I. (2005): "European Competition Law and IP", in *Twelfth St. Gallen International Competition Law Forum*, University of St. Gallen, Switzerland.

[56] Jonathan Gleklen, quoted by Arregui I. (2003): "Refusals to Deal Involving Intellectual Property Rights", 34 *Law and Policy in International Business* 832.

[57] See Forrester I. (2005): "Article 82: Remedies in Search of Theories?", in Hawk B., ed., *International Antitrust Law and Policy 2004*, Annual Proceedings of the Fordham Corporate Law Institute, Juris Publ., New York, pp. 167-194.

[58] William Kolasky, speaking in Brussels at a conference on "The Article 82 EC Abuse Concept" (30 September 2004), referred approvingly to the "modesty" of the US authorities in their approach of antitrust enforcement, as opposed to the European Commission's policy.

[59] *Verizon Communications, Inc. v. Law Offices of Curtis Trinko*, 124 S.Ct. 872 (2004). See also the *Verizon v. Trinko* roundtable discussion in 7(2) *Global Competition Review* 16 (2004).

detailed description of its own technology for the purpose of delivering to competitors the means of incorporating that information into the building of their own products. The compelled conduct had great political and industrial symbolism.

I have also argued that compulsory licensing cases should be regarded as a distinct genus, not as a category of essential facilities cases,[60] and separate from other duty-to-deal cases.[61] I should add that the recent Opinion of Advocate General Jacobs in the *Syfait* case follows the same taxonomy,[62] an approach which is not, however, consistently followed. (For example, essential facilities was one of the arguments advanced by the Commission in the *Microsoft* case.)

There are few compulsory licensing cases decided by the Commission and the Community Courts, many papers written on the subject, and little consensus as to what constitutes the normal exercise of intellectual property rights and what are the conditions in which antitrust intervention is justified. Let me start from the case law. The ground being so narrow and well-trodden, a fresh path is not easy to lay out. There will be no surprises in the next section.

The question whether a simple refusal to license could constitute an abuse of a dominant position was first tackled by the ECJ in *Volvo/Veng*.[63] The Court, invoking the specific subject matter doctrine that it had used in free movement cases, remarked that compulsory licensing amounts to taking away the substance of the exclusive right from its holder. Thus, the refusal as such cannot be abusive.[64] However, the Court also held there are circumstances in which a refusal to license may result in liability under Article 82:

[60] For example, Commission Decision of 21 December 1993 (*Sea Containers v. Stena Sealink—Interim measures*), OJ L 15 [1994]; Commission Decision of 21 December 1993 (*Port of Rødby (Denmark)*), OJ L 55 [1994]; Commission Decision of 14 January 1998 (*FAG—Flughafen Frankfurt/Main AG*), OJ L 72 [1998]. Telecommunications wires and cables may also be capable of being essential facilities. See Commission Notice on the application of the competition rules to access agreements in the telecommunications sector—framework, relevant markets and principles, OJ C 265 [1998], paras 49–53 and 87–98. I personally do not accept that intellectual resources can credibly be described as constituting an essential facility.

[61] For example, Cases 6/73 and 7/73 *Commercial Solvents and Others v. Commission* [1974] ECR 223; Case T-504/93 *Tiercé Ladbroke SA v. Commission* [1997] ECR II-923; *Bronner*, *op.cit.*

[62] Case C-53/03 *Synetairismos Farmakopoion Aitolias & Akarnanias (SYFAIT) and Others v. GlaxoSmithKline AEVE,* paras. 54–68.

[63] Case 238/87 *Volvo (UK) Ltd. v. Veng AB* [1988] ECR 6211.

[64] *Ibid*, para. 8:

> "It must also be emphasized that the right of the proprietor of a protected design to prevent third parties from manufacturing and selling or importing, without its consent, products incorporating the design constitutes the very subject-matter of his exclusive right. It follows that an obligation imposed upon the proprietor of a protected design to grant to third parties, even in return for a reasonable royalty, a licence for the supply of products incorporating the design would lead to the proprietor thereof being deprived of the substance of his exclusive right, and that a refusal to grant such a licence cannot in itself constitute an abuse of a dominant position."

> "the exercise of an exclusive right by the proprietor of a registered design in respect of car body panels may be prohibited by Article 86 [now 82] if it involves, on the part of an undertaking holding a dominant position, certain abusive conduct such as the arbitrary refusal to supply spare parts to independent repairers, the fixing of prices for spare parts at an unfair level or a decision no longer to produce spare parts for a particular model even though many cars of that model are still in circulation . . ."[65] (emphasis added)

The Court found that such circumstances were not present in this case. In a similar case decided on the same day as *Volvo/Veng* concerning protective rights covering an ornamental design for car body parts, the Court stated:

> "With reference more particularly to the difference in prices between components sold by the manufacturer and those sold by the independent producers, it should be noted that the Court has held that a higher price for the former than for the latter does not necessarily constitute an abuse, since the proprietor of protective rights in respect of an ornamental design may lawfully call for a return on the amounts which he has invested in order to perfect the protected design."[66]

Thus, under *Volvo/Veng*, a refusal to license may violate Article 82 if special factors are present, of which some examples (presumably illustrative, not exhaustive: not supplying spare parts for obsolete models, arbitrary refusal to supply spare parts to independent repairers, or the fixing of prices for spare parts at an unfair level) were given. The focus of the case was the replacement part market. So the dominant owner of intellectual property rights is in principle entitled to protect its intellectual property from copying and from being compelled to licence another firm to reproduce the monopolist's product. However, the monopoly given to the intellectual property right holder does not extend to a secondary market,[67] and damaging consumer welfare in that market may constitute an abuse. So far so good.

The Court revisited the possibility of compulsory licensing under Article 82 a few years later in *Magill*,[68] the case in which a compulsory licence of a national IP right was first granted. In Ireland, television companies each published a weekly magazine for consumers describing their future programmes and also distributed free-of-charge lists of programmes to newspapers in the UK and Ireland for them to publish these times free-of-

[65] Case 238/87, para. 9.

[66] Case 53/87 *Consorzio Italiano della Componentistica di Ricambio per Autoveicoli and Maxicar v. Régie Nationale des Usines Renault SA* [1988] ECR 6039, para. 17.

[67] See Anderman S. (2004): "Does the Microsoft Case Offer a New Paradigm for the 'Exceptional Circumstances' Test and Compulsory Copyright Licenses under EC Competition Law", 1 *The Competition Law Review* 2, available from: http://www.clasf.org/CompLRev/assets/Vol1Issue2Article1.pdf .

[68] Commission Decision 89/205/EEC of 21 December 1988 (*Magill TV Guide/ITP, BBC and RTE*), OJ L 78 [1989], upheld by the CFI in Case T-69/89 *Radio Telefis Eireann v. Commission* [1991] ECR II-485, upheld on appeal by the ECJ in Cases C-241/91 P and C-242/91 P *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v. Commission*, [1995] ECR I-743.

charge on a daily basis. Reproduction of the times on a weekly basis was forbidden, to avoid competition with each broadcaster's respective weekly guide, the only source of information on a weekly basis about upcoming programmes. Magill, an Irish magazine publisher, published a multi-channel weekly TV guide, giving details of the programmes of the three television broadcasters whose channels were available in Ireland. The Magill TV Guide survived for only one issue. The broadcasters invoked their copyright in the lists of their own programmes to enjoin Magill from publishing a multi-channel guide. Magill complained successfully to the Commission on the grounds that the television companies' refusal to license constituted an abuse of a dominant position under Article 82. After nervous hesitation, the Commission issued a decision requesting the television companies to license their programme listings to Magill (the broadcasters could claim a royalty). The order was appealed to the ECJ and then remitted to the CFI following the latter's creation. Judge Koopman of the ECJ did, however, suspend the effectiveness of the Decision as an interim measure, noting the case presented "delicate questions". The Court of First Instance found strongly in favour of the Commission:

> "Conduct of that type—characterized by preventing the production and marketing of a new product, for which there is potential consumer demand, on the ancillary market of television magazines and thereby excluding all competition from that market solely in order to secure the applicant's monopoly – clearly goes beyond what is necessary to fulfil the essential function of the copyright as permitted in Community law . . . The applicant's conduct cannot, therefore, be covered in Community law by the protection conferred by its copyright in the programme listings."[69]

The refusal to license an IP right could, therefore, in the very particular circumstances of the case, constitute an abuse. The Court of First Instance's position was perhaps too robust, and the judgment, like the Decision, was heavily criticised. Interventions were made on appeal to the ECJ by those voicing concerns about the dangers of future abuses of the principle. Advocate General Gulmann suggested that the CFI judgment should be quashed. In his Opinion he stressed that "[c]opyright is of fundamental importance both for the individual owner of the rights and for society"[70] and "where copyright law confers an exclusive right, that must be respected by competition law".[71] However, he reasoned that copyright does not confer "unrestrictive rights on copyright owners", it may be subject to "a limited right to free exploitation of the protected work or "compulsory licences"

[69] Case T-69/89, *Magill*, para. 73. "Essential function" is a term developed in free movement of goods cases as a means of defining those instances where Articles 28 and 30 required that the national right had to give way to Community goals.

[70] Opinion of AG Gulmann in Cases C-241/91 P and C-242/91 P, *Magill*, para. 11.

[71] *Idem*, para. 13.

which confer a right to make certain use of the work on payment of royalty" and to the EC Treaty rules on competition.[72] He concluded that it may be possible to interfere with the specific subject-matter of an IP right on the basis of Article 82,[73] when there exist special circumstances, but suggested that conditions for compulsory licensing were not met in this case.[74] The Court of Justice, relying on *Volvo/Veng*, confirmed that the exercise of an exclusive right by the proprietor may, in exceptional circumstances, involve abusive conduct that prejudices consumers.[75]

Just like *Volvo/Veng, Magill* concerned competition in a market peripheral to the mainstream activities of the intellectual property right-holder. The intellectual property rights at stake gave their owner a *de facto* monopoly. In *Volvo/Veng* and in *Magill*, a licence or breach of the right was indispensable to compete on the downstream market.

The copyright owners reserved the after-market for themselves, using their intellectual property to thwart innovation, to prevent a new product from coming into the market. A comprehensive weekly TV guide was a new product, and there was unsatisfied consumer demand for such a new product, one which would increase cross-border trade between England and Ireland, as consumers would get so attached to the new guide in England that they might not buy the other weekly guides available in England. The harm to Irish consumers was obvious: they had to buy three guides to plan their weeks viewing. In addition, the moral circumstances were attractive, and the IP right at issue was questionable. Indeed, it seemed surprising that three publicly-available lists of programmes, dates and times, presented in a single novel format showing three channels in parallel, would be a breach of copyright of the broadcaster which had drawn up its schedule of forthcoming programmes.

Magill left questions unanswered. It was not clear whether the fact that intellectual property rights at stake were questionable had a bearing (the Irish High Court confirmed there was a breach of copyright only well after the Commission Decision was adopted), whether the conditions stipulated by the Court were cumulative, and how they should be interpreted. The big difficulty in any Article 82 case is defining for the future the limiting principles. If they are too vague, there is a risk of arbitrary enforcement. If they are too circumscribed, the law will not advance. Could the Commission be trusted to choose the right "exceptional circumstances"? Was it crucial that in *Magill* the right holder used its legal monopoly on one market (listings) to exclude competition on another (TV guides)? Was the discriminatory, or at least controversial, licensing policy of the broadcasters relevant (daily licences to allies, no weekly licence to Magill)? How significant was the "thin" copyright

[72] *Idem*, paras 12–14.

[73] *Idem*, para. 54.

[74] *Idem*, paras 59–62.

[75] Cases C-241/91 P and C-242/91 P, *Magill*, para. 50.

right at stake? Thus the *IMS* case[76] was an opportunity to clarify the exceptional circumstances that warrant compulsory licensing under Article 82.

As in *Magill*, the Commission was requested to intervene in order to palliate the consequences of the successful invocation of a national IP right. The complainants said there was no possibility for companies wishing to offer pharmaceutical sales data in Germany to employ any convention for ascribing sales data geographically other than the convention used by IMS, the map known as the1860 brick structure. To supply usable marketing data to customers, that data had to describe sales in geographic zones (each containing at least three pharmacies) as their customers delineated them in all sales reports. There were no substitutes or alternatives to reporting sales along the same geographic lines as the map of postcodes drawn up by IMS, which was (successfully) claiming constituted a breach of its copyright. The Commission found that IMS's use of copyright actions against its competitors was an abuse of its dominant position. The Commission considered that the litigation was likely to eliminate all competition, and that the refusal to grant a licence lacked "objective justification".[77]

As in *Magill*, the Commission's Decision in *IMS* was criticised on intellectual property grounds, since it was thought contrary to "*well-established legal principles*" and because it risked to "*discourage investment in intellectual property*".[78] As in *Magill*, the Commission's Decision in *IMS* was suspended, by the President of the Court of First Instance.[79] National litigation in Germany culminated in a preliminary reference ruling of the Court of Justice on April 29, 2004, which constitutes the most authoritative pronouncement of the European judicature to this date on compulsory licensing of intellectual property rights.[80]

Let us recall the context. The file was replete with mutual recriminations. The original map of Germany had been drawn up by IMS as scribe at a meeting of pharmaceutical companies. Was the map to be regarded and host

[76] Commission Decision 2002/165/EC of 3 July 2001 (*NDC Health/IMS Health: Interim Measures*), OJ L 59 [2002], withdrawn by Commission Decision 2003/741/EC of 13 August 2003 (*NDC Health/IMS Health: Interim Measures*), OJ L 268 [2003]; Case C-418/01 *IMS Health GmbH & Co. OHG* v. *NDC Health GmbH & Co. KG*, [2004] ECR I-5039, not yet reported.

[77] The Commission did not base its attack on the possibility that IMS had hijacked an industry standard, the map, and was then using its control of that standard for the abusive purpose of excluding competition. See Killick J. (2004): "*IMS* and *Microsoft* Judged in the Cold Light of *IMS*", 1 *The Competition Law Review* 2, at p. 30, text available at http://www.clasf.org/CompLRev/assets/Vol1Issue2Article2.pdf.

[78] See e.g. Temple Lang J. (2004): "European Community Competition Policy—How Far Does It Benefit Consumers?", 18 *Boletín Latinoamericano de competencia* 128, text available from: http://europa.eu.int/comm/competition/international/others. See also Temple Lang J. (2004): "Anticompetitive Non-Pricing Abuses under European and National Antitrust Law", in Hawk B. , ed., *International Antitrust Law and Policy 2003*, Annual Proceedings of the Fordham Corporate Law Institute, Juris Publ., New York, pp. 303–308.

[79] Case T-184/01 R, *IMS Health*, *op.cit.*

[80] Case C-418/01, *IMS Health*, *op.cit.*

as a collectively-authored work, or that of IMS? Was it a breach of copyright in the map to presenting independently-gathered data as to each zone on the map? Was there unfair competition as between IMS and NDC, its new rival in Germany? Were alternative formats for presenting data to pharmaceutical companies wholly unacceptable or just inconvenient? Did copyright subsist in a map whose frontiers were German postal codes? The Commission had felt strongly enough to order by interim measures a compulsory licence. Several German courts had been involved, one of which decided to make a reference to Luxembourg. The issues were thoroughly briefed to the ECJ, which presumably felt uneasy about pronouncing too confidently on the underlying merits. To be useful, its judgment had to address the abstract principles and leave it to national courts to apply these principles to the facts. The Court enunciated four conditions to be met for a compulsory licence of intellectual property rights:

(a) the protected product or service must be *indispensable* for carrying on a particular business;
(b) the refusal is such as to *exclude any competition on the secondary market*;
(c) the refusal *prevents the emergence of a new product for which there is potential consumer demand*; and
(d) the refusal is *not objectively justified.*[81]

According to good sense and Advocate General Poiares Maduro, these conditions are cumulative.[82] One may assume they are to be interpreted restrictively.[83] It is easy to say dominant companies are not obliged to grant licences just because they are dominant. But when may they be obliged? The Court did not touch on the quality of the intellectual property rights at stake, but some commentators have stressed the low-value nature of the subject-matter that the copyright in question protects.[84]

[81] *IMS*, *op.cit.*, paras 37-38.

[82] Para. 35 of Advocate General Poiares Maduro's Opinion in Case C-109/03 *KPN Telecom BV v. Onafhankelijke Post en Telecommunicatie Autoriteit (OPTA),* [2004] ECR II-11273

[83] As acknowledged by Advocate General Poiares Maduro

> "… a duty under Article 82 EC for a dominant undertaking to aid its competitors should not be assumed too lightly and refusal to supply a competitor is not automatically considered abusive just because the inputs in question are necessary to compete on a secondary market. A balance should be kept between the interest in preserving or creating free competition in a particular market and the interest in not deterring investment and innovation by demanding that the fruits of commercial success be shared with competitors" (para. 39).

[84] See e.g. Tesauro G. (2002):"The Essential Facility Doctrine: Latest Developments in EC Competition Law" (2002) in Hellenic Competition Committee, ed., *EU Competition Law and Policy, Developments and Priorities*, Athens Conference, April 19th 2002 (Athens, 2002), at p. 100:

> "This point, in fact, is to do with the very tension existing between antitrust and property rights, in particular intellectual property rights. In its decision the Commission does not explicitly put into question the value of the copyright at stake. However, one of the factual

The IMS test and Microsoft

While *IMS* confirms and clarifies the *Magill* test, the Commission's Decision in *Microsoft*,[85] adopted just a few weeks before the *IMS* judgment, established a different approach. On 24 March 2004, the Commission adopted its final Decision finding two abuses of a dominant position by Microsoft Corporation. The case has been widely discussed.[86] First, Microsoft was accused of having refused to supply "interoperability information" to competitors for the purpose of developing their own technology in making operating systems for server computers performing so-called work-group functions. Second, Microsoft was accused of having integrated improved media functionality into its Windows personal computer operating systems without simultaneously offering, at the same price if it so chose, a version of Windows without that media functionality. The violation was not the adding of the new features but the failure to offer at the same time a version lacking those features.

For these two infringements, the Commission imposed the largest fine (€497 million) in competition law history. As a remedy for the first infringement, Microsoft was ordered to draw up a detailed "specification" describing the communications protocols by which Microsoft's server operating systems communicate with one another. Microsoft then had to offer the specifications

elements which is thoroughly explored by the Commission is the origin of the brick structure. From the evidence collected by the Commission, one has the feeling that the creation of the industry standard is more to do with the contribution and the involvement of the pharmaceutical companies than with a genuine, independent, creative effort entirely coming from the right holder. Thus, these arguments could have been a factor militating in favor of less stringent protection of such a copyright".

[85] Commission Decision in Case COMP/C-3/37.792, *EC Commission v. Microsoft* (Microsoft Decision).

[86] See e.g. Dolmans M. and Graf T. (2004):"Analysis of Tying Under Article 82 EC: The European Commission's Microsoft Decision in Perspective", 27 *World Competition* 225; Forrester I. (2005): "Article 82: Remedies in Search of Theories?", in Hawk B., ed., *International Antitrust Law and Policy 2004*, Annual Proceedings of the Fordham Corporate Law Institute, Juris Publ., New York, pp. 167-194; Ridyard D. (2004): "Compulsory Access Under EC Competition Law—A New Doctrine of 'Convenient Facilities' and the Case for Price Regulation", 25 *European Competition Law Review* 669; Geradin D. (2005): "Limiting the Scope of Article 82 EC: What Can the EU Learn from the U.S. Supreme Court's Judgment in *Trinko* in the Wake of *Microsoft*, *IMS*, and *Deutsche Telekom*?", 41 *Common Market Law Review* 1519; Leupold H. and Pautke P. (2005): "*IMS Health* vs. *Microsoft*: Befindet sich die Kommission bei Kartellrechtlichen Zwangslizenzen (erneut) auf Konfrontationskurs mit dem EuGH?", 16 *Europäisches Wirtschafts-und Steuerrecht* 108; Körber T. (2004): "Geistiges Eigentum, essential facilities und 'Innovationsmissbrauch': Überlegungen zum *Microsoft*-Fall im Lichte der EuGH-Entscheidung *IMS Health GmbH*", 50 *Recht der internationalen Wirtschaft* 881; Drexl J. (2004): "Intellectual Property and Antitrust Law—*IMS Health* and *Trinko*—Antitrust Placebo for Consumers Instead of Sound Economics in Refusal-to-Deal Cases", 35 *International Review of Intellectual Property and Competition* 788; Furse M. (2004): "Article 82, *Microsoft* and Bundling, or 'the Half Monti' ", 3 *Competition Law Journal* 169; Thyri P. (2005): "Immaterialgüterrechte und Zugang zur wesentlichen Einrichtund: Der Fall *Microsoft* im Licht von *IMS-Health*", 55 *Wirtschaft und Wettbewerb* 388.

for license to competitors to use them for the purpose of developing their own products. The information to be delivered to competitors was said by Microsoft to be secret, protected by copyright and covered by patents, and the fruit of years of engineering effort. It was said by its critics that the communications protocols in dispute were not truly valuable or innovative, and that the patents or pending patents which covered the communications protocols might be invalid, or might not be issued, or alternatively that the licensees might have been able to find means of implementing the licensed technology so as to avoid the techniques over which Microsoft held patent protection.

As a remedy for the second infringement, Microsoft had to develop a "fully-functioning" version of Windows which did not support certain media functionality (200 files were removed from the Windows operating system) and offer it to customers in Europe. Microsoft proposed to the Commission a number of names for the new emasculated product, and after some delay the suffix "N" has been chosen to identify the not-with-media-functionality version of Windows. Although the duty to launch an inferior version of a copyright and trademarked product presents very interesting IP questions (the dominant producer ordered to launch a deficient trademarked product against its will) most IP law excitement has been generated by the compulsory licensing of what are concededly secrets.

Having said that, everyone agrees that compulsory licensing of intellectual property is a very exceptional antitrust remedy, subject to very restrictive conditions. *Volvo*/*Veng*, *Magill* and *IMS* concerned rights whose subject-matter was rather "thin" and not covered by secrecy (the shape of car spare parts, copyright of TV programmes or the map of 1,860 districts following German postal code boundaries). Whether the right in question refers to something that is or is not valuable or secret or innovative, the right exists and is honoured by Article 295. Any encroachment upon it has to be capable of being analysed, justified and defended without embarrassment. Undue violence to international treaty obligations must also be avoided. These are easy propositions to make. Now we come to the difficult ones.

H. What Are the Limiting Principles?

The conditions for compulsory IP licensing must be restrictive where the right protects that which society intends specifically to protect and reward. It is arguable that "mainstream" IP rights in innovation-driven industries should be subject to stricter criteria, before compulsory licensing can be contemplated. In *IMS* and *Magill*, the Court did not suggest that different standards should apply in high-tech cases. In *Magill*, the CFI noted that the

Commission had argued that its decision was justified on the grounds that the material at stake was not the fruit of research or scientific effort. However, there was no necessity to make such a remark. The *Magill* and *IMS* material was public material ("one-star" or "two-star") protected by a debated right which was upheld judicially, after extensive argument: the status of what one might call "five-star" material protected by a "five-star" legal right will be examined in the *Microsoft* case. The ferocious controversy which greeted the *IMS* and *Magill* judgments, which involved debated—even doubtful—rights to control the use of non-secret information, may suggest that the tests there deployed are minima.

The challenge for competition law is to establish a realistic and predictable framework to determine those rare circumstances where the holder of the legal monopoly must share the intellectual property right with others. In terms of consumer/customer welfare, the most important *IMS* condition is the emergence of a new product for which there is unmet consumer demand. The Magill TV guide was a product Irish consumers desired. It was something new. It was cheaper than, and different in conception to, all existing guides. It was more useful for the ordinary citizen who owned a television set. The *IMS* judgment provided that protection of competition should prevail where a refusal to license prevents the emergence on a secondary market of a new product for which there is unmet consumer demand. Consumers do not benefit from "me-too" imitative products as they benefit from truly new ones. According to *IMS*, "duplicating the goods or services already offered on the secondary market by the owner of the copyright" is not sufficient.[88] A company wishing to receive a licensee must "intend to offer new goods or services not offered by the owner of the right and for which there is potential consumer demand".[89]

The Court's test for new products diverged from the Opinion of Advocate General Tizzano.[90] The Advocate General, by speaking of "goods and services of a different nature" rather than of a "new product" (the language

[87] A "*protocol*" means according to Article 1(2) of the Commission Decision "a set of rules of interconnection and interaction between various instances of Windows Group Server Operating Systems and Windows Client PC Operating Systems running on different computers in a Windows Work Group Network." Protocols are used by Windows Work Group Servers "to deliver file and print services and user administration services, including the Windows Domain Controller services . . . to Windows Work Group Networks".

The material at stake is voluminous (thousands of pages in length) and relates to technically complex matters. For example, the protocols define how a thousand servers in a network will update their directory in a synchronized way.

[88] *IMS*, *op.cit.*, para. 49.

[89] *Ibid.*

[90] The Advocate General (para. 62) expressed himself in the following terms:

"[T]he refusal to grant a licence may be deemed abusive only if the requesting undertaking does not wish to limit itself essentially to duplicating the goods or services already offered on the secondary market by the owner of the intellectual property right but intends to produce goods or services of a different nature which, although in competition with those of the owner of the right, answer specific consumer requirements not satisfied by existing goods or services."

in *Magill*), suggested a lower standard.[91] According to the *IMS* ruling, only in situations that combine leveraging with the limiting of production in the sense of Article 82(b) would there be an abuse of a dominant position in IP cases.[92] Preventing the emerging of a new product, which the right-holder does not himself offer, limits production to the detriment of consumers.

The new product test is a significant limitation to unmeritorious complaints about refusals to license. It makes good sense from an orthodox antitrust law point of view. It is essentially a means to justify resisting calls to protect competitors, since otherwise antitrust would be turned into a sort of unfair competition law. If the dominant company already produces products that answer consumer needs, and the "enforcer-aided" competitive product is nothing more than just another product, that will not really satisfy any unmet consumer demand. There is nothing "new". *Magill* would have been differently decided had the television companies already produced their own composite TV guides by cross-licensing each other.[93] Magill might have had some complaint, but it would have been much weaker. *IMS* did not give a definitive answer with regard to the "newness" of the relevant product that NDC had created (NDC asserted its product was wholly different by reference to various criteria), because the European Court thought it prudent to delegate this matter to the referring national court. In its Decision in *IMS*, the Commission had also argued that "there is no requirement for a refusal to supply to prevent the emergence of a new product in order to be abusive".[94] The Court dispersed doubt about this by adopting a slightly more demanding test than the one proposed by its Advocate General. The "new product" requirement may be the main safety valve that protects right-holders from the undue intervention of competition law.

One of the many interesting questions in *Microsoft* is whether the test is to be met by the possible emergence of unspecified products which may be expected to have innovative features. Thus, so the argument goes, making the technology available through licence will encourage licensee rivals of Microsoft to bring to the market "new" products. If that is enough for the test, the criterion will be rather easy to satisfy and indeed it will not be much of a test. Is the emergence of a competing "pin-striped" version of the right-holders' product enough? If the test is something more, like "totally different" or "much better" or "wholly novel", then it will better match the *IMS* criterion but it will not be easy to apply.

[91] See, for example Völcker S. (2004): "Developments in EC Competition Law in 2003: An Overview", 41 *Common Market Law Review* 1057 (writing before the rendering of the *IMS* judgment).

[92] I agree with the reasoning—though not with the conclusions—of Heinemann A. (2005): "Compulsory Licences and Product Integration in European Competition Law—Assessment of the European Commission's *Microsoft* Decision", 36 *International Review of Intellectual Property and Competition Law* 63.

[93] See in this direction Sufrin B. (2004): "The *IMS* Case", 3 *Competition Law Journal* 21.

[94] *IMS* Decision, *op. cit.*, para. 180.

Even if we regard the newness of the new product as the most interesting for consumer welfare, the proper point of departure in the competition law analysis should be the test of indispensability. The *IMS* judgment appears to require indispensability plus three tests, which might correspond to what could be called exceptional circumstances. Presumably the circumstances of a future case might call for alternative or additional tests. But without indispensability none of these tests would merit consideration.

Indispensability, like newness, should block spurious claims by would-be free-riders. Courts must ask whether the protected intellectual property rights are indeed indispensable for competitors to carry on their business activities. *Bronner* and *Ladbroke* indicate that access to intellectual property is not indispensable if a dominant undertaking's competitors can develop and market their products without access to their competitors' property, even if it would be more convenient for them to have it. The *Microsoft* Decision considers the importance of interoperability.[95] It further argued that Microsoft's specifications are indispensable for this purpose. On the other hand, the Commission conceded that interoperability was a matter of degree. Microsoft argued that there was a circularity in arguing that Microsoft protocols were indispensable to interoperating in the same manner that Microsoft's servers interoperate with other Windows servers. The whole question of which interoperability goal is being pursued by the Decision is indeed debated.

On the third condition after newness and indispensability, elimination of competition, the Court's test in *IMS* (April 2004) speaks of "elimination of all competition", a rather absolute standard.[96] By contrast, the test in *Microsoft* (March 2004), is the "risk of elimination of competition", a test based on hypotheses. The shades of meaning may seem fine, but the distinction is quite fundamental. The Decision does not say that competition will probably or very likely or inexorably be eliminated. Instead it relies on less absolute criteria: risk, probability, uncertainty and so on.

According to the Commission: ". . . the degree of interoperability that can be achieved on the basis of Microsoft's disclosures is insufficient to enable

[95] *Microsoft* Decision, *op. cit.*, para. 669:

"As regards the use of open industry standards implemented in Windows, interoperability within a Windows work group network largely depends on specifications that are proprietary or are extended versions of standard protocols. Therefore, open industry standards fall short of enabling competitors to achieve the same degree of interoperability with the Windows domain architecture as Windows work group server operating systems do. Since all major work group server operating system vendors already support most of the open industry standards supported in Windows, it can be concluded that this degree of interoperability proves to be insufficient for them to viably compete in the market. Therefore, reliance on open industry standards cannot be considered to be at present a realistic substitute to disclosures by Microsoft." (emphasis added)

[96] *IMS*, *op.cit.*, para. 52.

competitors to viably stay in the market".[97] Thus, the goal of the Decision is delivering a "sufficient" degree of supply of interoperability, and thus, by implication, a "sufficient" degree of competition. It was agreed that a new kind of server operating system, using the Linux kernel, had entered the marketplace and grown during the critical period despite not having access to the licensed technology. Again, it remains to be seen whether that standard is the correct one, and what weight is to be attached to the success of Linux servers in light of that standard. Supposedly, the still unpublished (but much awaited) draft Article 82 Guidelines have anticipated this controversy, saying that as a matter of policy increase of market share of competitors should not suffice to rebut the finding of abuse.

The fourth condition is objective justification. Was it appropriate to say no? Any dominant company would say it is objectively justified in not disclosing its intellectual property to a major competitor wishing help to displace the dominant player's products. There may be cases where the refusal would indeed block all competition, where a licence is indispensable and where a new product would be made by the licensee. Where can the right holder confidently say no? It might want to invoke the heavy R&D expenditure, the limited period of available patent protection, to the firm's own view of the best way of exploiting its own invention. Advocate General Jacobs in *Bronner* reviews US case law and points out three categories of objective justification: technical, commercial and efficiencies.[98]

Can the holding of intellectual property by a dominant undertaking by itself suffice as "objective justification"? Of course, merely possessing an IP right does not confer antitrust immunity in the form of an "objective justification", but neither can the problem be discarded. The inherent feature of IP, the power to exclude others from something that belongs to you, is impaired gravely by a compulsory licence.

Suppose that the dominant player receives a very broad request: can he confidently say no or even say nothing at all, or must he negotiate a more

[97] *Microsoft* Decision, *op. cit.*, para. 589, fn. 712.

[98] See Advocate General's Opinion, *Bronner*, *op.cit.*, at para. 47:

"The US essential facilities doctrine has developed to require a company with monopoly power to contract with a competitor where five conditions are met.(42) First, an essential facility is controlled by a monopolist. A facility will be regarded as essential when access to it is indispensable in order to compete on the market with the company that controls it. The following have for example been held to be essential facilities: railroad bridges serving the town of St Louis;(43) a local telecommunications network;(44) a local electricity network·(45) Secondly, a competitor is unable practically or reasonably to duplicate the essential facility. It is not sufficient that duplication would be difficult or expensive, but absolute impossibility is not required.(46) Thirdly, the use of the facility is denied to a competitor. That condition would appear to include the refusal to contract on reasonable terms.(47) Fourthly, it is feasible for the facility to be provided. Fifthly, there is no legitimate business reason for refusing access to the facility. A company in a dominant position which controls an essential facility can justify the refusal to enter a contract for legitimate technical or commercial reasons.(48) It may also be possible to justify a refusal to contract on grounds of efficiency.(49)" (references omitted) reasonable scope? What if the complainant unsuccessfully asks for the Crown Jewels but the Commission concludes he should have been offered one pearl. Was there an abuse? Is it an abuse to offer the pearl for a high licence fee which reflects the pearl's considerable value in the marketplace? Is the competition authority going to identify the limits on an interim measures basis? Will the authority be able to order a broader disclosure than the one offered, but narrower than the one demanded?

Contrast the US approach. *Kodak* had adopted a rebuttable presumption that the exercise of the statutory right to exclude provides a valid business justification and *Xerox* had gone even further holding that a legitimate holder of a patent or copyright can refuse to license anyone, regardless of intent or effect on competition, and that refusal is exempt from the antitrust laws unless the intellectual property was obtained by fraud, the infringement suit is a sham to cover an intent to injure a competitor, or the refusal is part of a tie-in sale strategy. In other words, US antitrust law follows an entirely different approach with regard to the objective justification defence. Of course the law and the history are different. But the contrast makes it easy to see the choices. So should the norm be the immunity of IP, so that only exceptionally will IP not function as a valid defence? Or should the norm be that ownership of IP itself is not a valid objective justification? Or is there a third way relying on the nature of the right and the nature of what is protected?

I. The New Balancing Test

In *Microsoft* the Commission argued that the case law allows it to "analyse the entirety of circumstances surrounding a specific instance of refusal to supply" and base its decision on the results of such examination.[99] The Commission applied a balancing test, which weighs Microsoft's incentives to innovate against the incentives of the whole industry to innovate were Microsoft required to make its technology available for license.[100] A

[99] Microsoft Decision, *op. cit.*, para. 558. The Commission, however, submits that in any case the *Magill* test has been satisfied.

[100] The test used in the Decision entails an *ad hoc* balancing of the "general public good" against a dominant undertaking's right to deal with whom it pleases.

> "The central function of intellectual property rights is to protect the moral rights in a right-holder's work and ensure a reward for the creative effort. But it is also an essential objective of intellectual property law that creativity should be stimulated for the general public good. A refusal by an undertaking to grant a licence may, under exceptional circumstances, be contrary to the general public good by constituting an abuse of a dominant position with harmful effects on innovation and on consumers." (*Microsoft* Decision, *op. cit.*, para. 711.)

> "The major objective justification put forward by Microsoft relates to Microsoft's intellectual property over Windows. However, a detailed examination of the scope of the disclosure at

compulsory licence is justified on the ground that the licensee having been forced to share his technology, he will be encouraged to develop new ones. To quote a now retired (but much involved!) official:

> " . . . it is very important to note that not only did we look at Microsoft's incentives to innovate, but also at the incentives of the market as a whole. Here, we came to the very clear conclusion that Microsoft's refusal to disclose the interoperability information was itself reducing the incentives of rivals to bring innovative products to the market. This is because if rivals know that however good their products are, and indeed if they are better than Microsoft's products in terms of reliability, speed, security, new functionalities, and other such factors, they will not be able to compete on the merits simply because Microsoft has reserved for itself an artificial interoperability advantage. Our remedy will therefore increase the degree of innovation in the market – with it, rival server vendors will know that it is worth their while to focus development efforts on innovations in their products since they will now be able to compete on the merits of these products, and without an artificial interoperability obstacle. I should also point out that as rivals' products get better, there will be a spur to Microsoft's own incentives to innovate, as it will no longer be able to simply rely on the artificial interoperability advantage to win in the market."[101]

This balancing test has been commended by Professor Lévêque[102] as good from the economist's viewpoint, and superior to the new product test. He notes the difficulty of deciding when a new product has emerged, as compared to the ease with which an economist can do this balancing. Others express concern about its open-ended nature, arguing that when a dominant company receives a request for help of a technological kind from a competitor, it is at risk of abusing Article 82 if its refusal seems likely to damage the public good. Whether it is obliged to license or not will be decided only after the refusal has occurred by comparing its incentives to innovate with others' interests in enjoying the licensed technology. It appears difficult enough for the enforcers to ensure a consistent and objective application of such a test. Who will do the measuring, and what will be measured? I learned in dumping cases how extraordinarily difficult enquiries into the details of price, cost, profitability and income can be, and how difficult is the task of

stake leads to the conclusion that, on balance, the possible negative impact of an order to supply on Microsoft's incentives to innovate is outweighed by its positive impact on the level of innovation of the whole industry (including Microsoft). As such, the need to protect Microsoft's incentives to innovate cannot constitute an objective justification that would offset the exceptional circumstances identified." (*Microsoft* Decision, *op. cit.*, para. 783.)

[101] Mensching J. (2004): "The *Microsoft* Decision—Promoting Innovation", in text presented at the Sweet & Maxwell 4th Annual Competition Law Review Conference, 22 October 2004, text available from: http://europa.eu.int/comm/competition/speeches/text/sp2004_017_en.pdf, emphasis in the original.

[102] See Lévêque F. (2005): "Innovation, Leveraging and Essential Facilities: Interoperability Licensing in the EU *Microsoft* Case", 28 *World Competition* 71.

their judicial review. Indeed, many lawyers and not a few judges favour legal criteria rather than economic assessments.

Other unanswered questions remain. Do judges and competition authorities have the right background for setting the appropriate terms of access to the licensed technology? Since the owner refuses to license, someone else would have to assess and set the amount of compensation. This could be anything between the licensing cost and the opportunity cost of licensing (i.e. the income taken away by the additional right-holder). This is difficult enough for a regulator and, as noted by others, very difficult indeed for a general enforcer.[103] Indeed it has been argued that no royalties are appropriate unless the licensed material is genuinely innovative, superior to other technologies. This portion of the *Microsoft* case will create especial interest for IP lawyers and competition lawyers in the future.

Establishing constraints on compulsory licensing creates legal certainty for market operators, but at the cost of limiting the enforcer's freedom to condemn. Any *ex post* regime based on condemnation, such as the prohibition of abuses, needs predictability to be lawful. Legal certainty is not an inherent quality of antitrust law[104] but compulsory licensing cases are quite special. This can be seen in the Courts' readiness to provide intelligible, apparently closed, lists of "conditions" that exceptionally justify antitrust intervention. Does the "new world" require sharper tools to address challenges in technologically advanced industries? Enforcers may say they need a more flexible and more powerful tool. The difficulty will be that an excessively discretionary test will be based on competition policy, not competition law.

J. Conclusion

In a democratic society, the law must be sufficiently predictable for individuals to plan their affairs. This is especially true in the case of laws which condemn or which inflict punishment. Of course, every Article 82 case is likely to create new ground, and perfectly compelling precedents are rare. The *Microsoft* Decision is defended on the grounds that fresh techniques are necessary to deal with the challenge of the new technology and the special features of software. Legal principles applied to one dominant player must be capable of being applied in the future to other dominant players. How should the dominant holder of an important technological advantage reply to a broadly-formulated request for access to the technology from a competitor

[103] See also Korah V. (2005): "Refusals to License Contrary to Article 82 EC—*IMS*—When Are the Circumstances Special?", Fordham IP Conference papers (not yet published).

[104] See Hawk B. and Denaeijer N. (2001):*European Competition Law Annual 2000: The Modernisation of EC Antitrust Policy.*

who wishes to use that technology to build a competing product? The right-holder will normally prefer not to grant such a licence, but will surely not wish to risk being condemned and heavily fined for abuse of a dominant position. If the request for technical assistance is too broad, is there a duty to deliver something narrower? Must the dominant player under the balancing test compare its own interests and incentives to innovate with those of society as a whole? Are patents, copyrights and unpatented trade secrets to be treated identically or differently when considering whether a duty to license exists? May a right which has never been tested judicially be more confidently overridden than one confirmed by a court? Is there a distinction between material protected by publicly-granted rights and protected only by trade secret law material? Of course, other specialists can produce twenty other interesting questions.

There are formidable challenges in being subject to a standard which is difficult to apply and difficult to foresee. There are not less significant challenges for judicial review of decisions based upon policy choices and a broad balancing of public and private interests. I do not at all diminish the challenge for the enforcer—or for the judge—or for the advocate—in addressing these matters.

III

Philip Lowe and *Luc Peeperkorn**

Intellectual Property: How Special is its Competition Case?

A. Introduction

In order to tackle the question that is contained in the session title, we will look at some background issues which concern finding the right balance when applying competition policy to IP rights and licensing agreements. We will conclude by briefly outlining current EU competition policy to IP rights and licensing and explaining why we consider this policy to be a good step forward both for competition and innovation.

B. Do IP and Competition Law Have Conflicting Aims?

Early copying of an innovation and free riding on an innovator's efforts undermine the incentive to innovate. So IP laws grant the innovator a legal monopoly. They provide the innovator the right to exclusively exploit the innovation and exclude others from exploiting it. This legal monopoly may, depending on the availability of substitutes in the relevant market, in turn lead to market power and even to monopoly as defined under competition law. This has given rise to the alleged source of conflict often mentioned: that competition law would take away the protection which IP law is providing. If the aims of IP law and competition law are truly different, this might impose serious limits on the application of competition law to IP.

However, this is only an apparent source of conflict. At the highest level of analysis, IP and competition law are complementary because they both aim

* Respectively, director general and principal administrator in DG Competition. The views expressed belong to the authors, and do not necessarily represent those of the Commission or DG Competition. This paper is in good part based on Lowe P. and Peeperkorn L. (2004): "Singing In Tune With Competition And Innovation: The New EU Competition Policy Towards Licensing", paper presented at the Fordham Corporate Law Institute Annual Conference 2004 (Roundtable on Intellectual Property and Antitrust), and on Peeperkorn L. (2003): "IP Licenses and Competition Rules: Striking the Right Balance", 26 *World Competition* 527.

at promoting consumer welfare. Competition policy aims at promoting consumer welfare by protecting competition as the driving force of efficient and dynamic markets, providing at all times the best quality products at the lowest prices. The objective of IP laws is to promote technical progress to the ultimate benefit of consumers. This is done by striking a balance between over- and under-protection of innovators' efforts. The aim is not to promote the individual innovator's welfare. The property right provided by IP laws is awarded to try to ensure a sufficient reward for the innovator to elicit its creative or inventive effort without delaying follow-on innovation or leading to unnecessarily long periods of high prices for consumers. A delay in follow-on innovation may result when the innovation consists of an improvement on earlier ideas that have been granted patent protection already. Unnecessarily long periods of high prices will result when the innovation allows the IPR holder to achieve market power in the market(s) where the IPR is exploited and where the IPR protects this monopoly position longer than is required to elicit the innovative effort.

To strike the right balance between under- and over-protecting innovators' efforts, intellectual property rights differ from and are usually less absolute than 'normal' property rights: they are often limited in duration (patents, copyright), they may not afford protection against parallel creation by others (copyright, know-how), and they may lose their value once they become public (know-how).

C. Are IP Laws and Their Application Striking the Right Balance?

If IP law always struck the perfect balance in every situation, it could be argued that there would be less reason for competition law to be applied. Whether IP laws do in fact strike the right balance between over- and under-protection of innovators' efforts and whether and how competition policy should intervene in this area are difficult questions. They were dealt with during the hearings organised by the US Department of justice and the FTC on "Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy".[1] They were also discussed in a recent OECD roundtable on competition policy and intellectual property, with a focus on the biotechnology industry.[2]

[1] In the subsequent FTC Report, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*, of October 2003, proposals are formulated to improve the US patent system.

[2] OECD, 8–9 June 2004.

IP law certainly helps defend the incentive to innovate by providing a property right to the innovator. This in principle allows the innovator to reap the benefits of his invention and to go to court against free riding on his innovative effort. IP law also supports the dissemination of innovations. Patent law requires disclosure of the innovation, which allows follow-on innovation. More importantly, the property right also enables the innovator to license his innovation. Licensing will mostly be pro-competitive. It facilitates diffusion of innovation and permits the efficient integration of technological assets of the licensor with production assets of the licensee(s), as the licensor may not himself be the most efficient producer. Licensing may also reduce duplication of R&D, it may spur incremental innovation, and through the royalty income it strengthens the incentive for the initial R&D. Lastly, licensing may help to create competition on downstream product markets.

However, it is also clear from studies that in most industries patents do not play a very important role for companies in protecting and exploiting innovation.[3] Natural secrecy, recognition lags, learning curve effects, the imitator's need to duplicate at least a part of the R&D effort to overcome practical production problems (the so-called need to develop 'absorptive' capacity) and first-mover advantages are all ranked ahead of patents as appropriation mechanisms. However, for certain sectors like the pharmaceutical sector, patents are recognised as being very important for the appropriation of the revenues from innovation.

Jaffe confronts the outcome of the managerial surveys by Levin and by Cohen and their co-authors with the dramatic increase in US patenting since the mid-1980s.[4] Part of the increase is thought to be related to an increase in R&D spending. Part may also be explained by regulatory capture leading to wider patentability and a friendlier attitude of courts towards protecting or ensuring the validity of IPRs. Part of the increase is also explained by a shift in the technological possibilities for inventions in certain new areas such as biotechnology. However, the main explanation for the increase is thought to be an increase in productivity of the research process in general, at least in terms of its ability to produce patents. Jaffe asks why firms take out more patents despite the fact that they do not perceive them as a more effective mechanism of appropriation.

[3] See Levin R., Klevorick A., Nelson R. and Winter S. (1987): *Appropriating the Returns from Industrial research and Development*, Brookings Papers on Economic Activity No. 3/1987, and the follow-up to this survey by Cohen W., Nelson R. and Walsh J. (2000): *Protecting Their Intellectual Assets: Appropriability Conditions and Why U.S. Manufacturing Firms Patent (Or Not)*, NBER Working Paper No. 7552. See also Scherer F. and Ross D. (1990): *Industrial Market Structure and Economic Performance*, 3rd edition, Houghton-Mifflin, Boston, Chapter 17.

[4] Jaffe A. B. (1990): *The US Patent System in Transition: Policy Innovation and the Innovation Process*, NBER Working Papper 7280. The paper (figure one) shows roughly a doubling of domestic patent applications and domestic patents granted between 1984 and 1998.

The explanation he offers, in order to reconcile the increase in patents with their perceived ineffectiveness in protecting innovation, concerns the multiple ways that firms use patents. In addition to protecting the returns on innovation for which they are intended, firms seem to use patents more and more "to block products of their competitors, as bargaining chips in cross licensing negotiations, and to prevent or defend against infringement suits".[5] As Jaffe argues, the latter uses of patents are to a significant extent a zero-sum or negative-sum game. The more companies block, accumulate bargaining chips and patent portfolios, and patent to file for or defend themselves against infringement suits, the less they all succeed in increasing their returns from innovation. A company's private marginal return on patenting may be high but firms' actions largely offset each other, with the result that the overall value of patents is seen as being diminished.

In other words, it is increasingly being recognised that patents and the patent system may not always stimulate innovation but may also be used for other defensive purposes and may retard (follow-on) innovation.

This explanation is supported by research by Ham & Hall and by Bessen & Maskin.[6] Ham & Hall analysed patenting in the semiconductor industry and conclude that the strengthening of patent rights in the US has, on the one hand, helped specialised design firms to enter the market but has also led to 'patent portfolio races' among capital-intensive firms. "In an industry where the pace of technology is rapid and firms build quickly (even simultaneously) upon innovations made by others, firms may patent for strategic reasons even if they continue to rely on other mechanisms, such as lead-time and superior manufacturing or design capabilities, to recoup investments in R&D. Especially for firms engaged in rapidly changing, cumulative technologies, building larger portfolios of their own 'legal rights to exclude' may reduce the hold-up problem posed by external patent owners and enable firms to negotiate access to external technologies on more favourable terms."[7]

Bessen & Maskin ask why industries such as software, semiconductors and computers have been so innovative despite historically weak patent protection. They use a model to show that in such industries, where innovation is both sequential (each successive invention builds on the preceding one) and complementary (different research lines are pursued to solve a problem), patent protection may reduce overall innovation and social welfare. While, in a static world, imitation invariably inhibits innovation (free rider argument) and patents protect innovation incentives, in a dynamic world imitation may benefit both the original innovator and society as a whole and patents may

[5] See above, at p.16.

[6] Ham Z. and Hall B. (2001): "The Effects of Strengthening Patent Rights on Firms Engaged in Cumulative Innovation: Insights from the Semiconductor Industry" (draft of June 2001), and Bessen J. and Maskin E. (2000): *Sequential Innovation, Patents and Imitation*, MIT Department of Economics Working Paper.

[7] Ham and Hall, *supra* n. 7, at p. 48.

constrain complementary innovation. The test for their model came from a natural experiment in the US when patent protection was extended to software in the 1980s. The number of patents for software increased enormously in the US, from less than 1000 in 1983 to roughly 7000 in 1995. Standard static arguments would have predicted that the extension of patent protection would have led to an increase in R&D spending followed by an increase in productivity growth. However, these increases did not occur. Instead, a period of stagnant, if not declining, R&D spending occurred, in line with the dynamic model that the increased number of patents will inhibit complementary innovation. Their explanation is also supported by the cross licensing behaviour in these industries. The static model would predict licensing to competitors to take place only on restrictive terms. However, in these industries entire patent portfolios are often licensed to direct competitors, which demonstrates a desire to prevent hold-up problems and to support potential future benefits and thereby to soften the negative effects of the growth of the number of patents.

Similarly, it is argued that IPR protection is sometimes becoming excessively long and/or wide. It seems contradictory that over the last 100 years the duration of IPRs has increased considerably (nowadays in general 20 years for patents and 70 years after the death of the author for copyrights) while the product life cycle for most products has shortened. This may lead to more problems for follow-on innovation. It also seems that the patent offices are sometimes awarding rather wide patents or are providing patents where there is not much novelty involved. Examples might be the recent developments in the US around the patentability of business methods. Would it really have stimulated innovation and improved welfare if in the past the supermarket concept had been patented? During the consultation phase on the new rules for applying competition policy to technology transfer agreements, certain representatives of industry stated that, also in the EU, patents are sometimes awarded too easily.

D. Is Competition Good for Innovation?

There is agreement that competition is the driving force for static allocative efficiency. Competition forces companies in a market with a given technology to offer the best quality products at the lowest prices. However, this is of course at best relevant in the short term and certainly not in the longer term. In the real world, product markets develop and change over time because of innovation; improved or new products and production processes are introduced. New or improved products will in general lead to greater consumer satisfaction, and improved or new production processes will lead to lower production costs.

It is a generally accepted and well substantiated point of view that innovation is the main source of increases in economic welfare. The literature shows that technological innovation and an increased ability of the labour force are the main driving forces behind productivity gains and welfare growth.[8] This explains why societies in general try to spur the creation and dissemination of innovation. In case of a choice between dynamic and static efficiencies, the former will quickly outweigh the latter.

This has led to the question whether innovation instead of price competition should be the focal point of competition policy and, if so, whether this should lead to a drastic revision of it. This question goes to the heart of competition policy and questions its general validity when applied to markets for new and existing products. The assumption is that there may be a contradiction between innovation and (price) competition, or at least that by focusing on the preservation of (price) competition the rate of innovation may be harmed. Underlying this assumption is the view that (high) market concentration may have a positive influence on the rate of technological progress.

There is no clear agreement in the economic literature concerning the benefit of competition for innovation and hence dynamic efficiency. There are economists who, in the footsteps of Schumpeter, claim that innovation is spurred by monopoly.[9] Monopoly profits may fund R&D and a high market share may help to appropriate the value of the resulting innovations. These economists argue that there is therefore a conceptual flaw in competition policy. Competition policy, by attacking monopoly and preventing market power from arising, may have a positive effect on static allocative efficiency but undermines dynamic efficiency. As the latter is much more important for welfare growth, it is argued that competition policy easily leads to unwanted policy results, i.e. less growth and less welfare.

The Schumpeterian view has been contradicted by Arrow[10] and other economists, who have put forward a number of reasons why competition may provide more incentives for innovation than monopoly. A firm under competitive pressure will be less complacent and will have more market share to gain through innovation. In addition, in case of a product invention, the new product will not cannibalise the firm's own market as it would under monopoly, and in case of a process invention it will be applied to a higher output than under monopoly. It is also argued that innovation incentives depend not so much on post-innovation profits *per se,* but on the difference between post-innovation and pre-innovation profits. More product market

[8] See Scherer and Ross, *supra* n. 4, Chapter 17; Solow R. (1957): "Technical Change and the Aggregate Production Function", 39 *Review of Economics and Statistics* 312.

[9] Schumpeter J. (1942): *Capitalism, Socialism and Democracy*, London, Routledge.

[10] Arrow K. (1962): "Economic Welfare and the Allocation of Resources for Invention", in Nelson R., ed., *The Rate and Direction of Inventive Activity: Economic and Social Factors*, Princeton University Press, at pp. 609–625.

competition and a strict competition policy work as an effective engine for innovative effort.[11]

Empirical research on the relationship between market structure and innovation, usually the litmus test in case of theoretical controversy, does not give unequivocal results but seems to support the view of Arrow. In general, competition and open markets provide better incentives for innovation, while monopoly and high market concentration retard innovation.[12] There are some indications of an inverted U relationship between concentration and the ratio of industry R&D to industry sales, with the highest R&D/sales ratios occurring where the four biggest companies in the industry sell 50% to 60% of total industry sales. However, it is also clear that other factors such as the technological opportunity of the sector are more important to explaining R&D intensity. Using data for the UK and controlling for technological opportunity, Geroski found that higher seller concentration and increases in other monopoly related variables have a significant negative impact on the emergence of innovations.[13] In a study analyzing reports in specialized technical literature covering the entire manufacturing sector, Acs and Andretsch found that the average small-firm innovation rate is higher than the large-firm innovation rate.[14] Other research points to the very important role of newcomers, especially where the invention of radically new products and concepts is concerned, and to the related interest in keeping entry barriers at low levels.

Further evidence on the positive relationship between competition and productive efficiency comes from a comparison of the economic performance of countries with efficient versus restricted competitive market systems.[15] For instance, measures of competition intensity at the economy-wide level are positively associated with economic development. Furthermore, market competition has been found to significantly raise productivity growth rates. There is also ample evidence that vigorous domestic competition promotes success in international markets. Comparative case studies of single industries in the United States, Japan and Europe show that competition (especially global competition with best-practice producers) enhances productivity. Firms with higher market power tend to be less productive in

[11] Aghion P., Bloom N., Blundell R., Griffith R. and Howitt P. (2002): *Competition and Innovation: An Inverted U Relationship*, The Institute for Fiscal Studies, Working Paper 02/04; Martin S. (2001): "Competition Policy for High Technology Industries", 1 *Journal of Industry, Competition and Trade* 441.

[12] Scherer and Ross, supra n. 4, Chapter 17.

[13] Geroski P. (1990): *Innovation, Technological Opportunity, and Market Structure*, Oxford Economic Papers 42. See also Scherer and Ross, *supra* n. 4, Chapter 17.

[14] Acs Z. and Andretsch D. (1987): "Innovation, Market Structure and Firm Size", 69 *Review of Economics and Statistics*.

[15] These findings are based on a large number of studies on the link between competition and productivity. For a comprehensive list of these studies, see DG Competition's website at http://europa.eu.int/comm/competition/proactive_competition_policy.

relative terms and significant increases in market concentration are generally associated with reductions in efficiency and the level of productivity.

Recently there has been a more refined debate as to whether the supposed different dynamics of competition in sectors undergoing rapid technological change requires a more or less fundamental revision of competition policy for those sectors.[16] For instance, Evans and Schmalensee argue that competition in important new industries centres on investment in IP. Firms engage in competition for the market through sequential winner-take-all races to produce drastic innovations, rather than through price/output competition in the market and through incremental innovation.[17] They argue that firms will obtain considerable short-run market power, but ignoring their dynamic vulnerability may lead to misleading antitrust conclusions.

For competition policy it would therefore be important to distinguish between industries where markets are (continuously) destroyed and replaced through drastic innovations and industries where innovation within markets develops incrementally. Evans and Schmalensee identified the following industries as having Schumpeterian dimensions: computer software, computer hardware, internet-based businesses (portals, B2B exchanges), communications networks, mobile telephony, biotechnology and, to a lesser extent, pharmaceuticals.

This is again in the first place an empirical question. Evans and Schmalensee acknowledge that an initial phase with bursts of innovation may only characterize the infant stage of a new industry and may very well be followed by a long period of comparative stability and incremental innovation. For instance, they refer to the car industry as having had Schumpeterian aspects around 1910 and decades of stability afterwards. Other examples are the chemical and electronics industries that were described in the fifties as 'new-economy'.[18] It seems most likely that today's 'new economy' industries will also turn into more 'normal and traditional' industries if they haven't done so in good part already.

[16] It is sometimes argued, often in a rather loose way, that the pace of technological change is increasing or has increased in recent times. There seems to be little evidence of this trend. Traditional indicators such as productivity growth rates have not shown a clear upward trend in the pace of innovation. Some claim that the rate of innovation is poorly measured by such indicators, as many qualitative improvements are not captured. However, the same applies for the productivity figures of the past, and to show a clear upward trend in the pace of innovation one should in that case show that qualitative improvements have become more important over time. It seems more likely that the impression that innovation is increasing in pace is only a matter of perception: changes in one's own time always seem more rapid and upsetting, just as the perception of speed will be stronger if one is near to a passing train then when the train is seen from a distance.

[17] Evans D. and Schmalensee R. (2001): *Some Economic Aspects of Antitrust Analysis in Dynamically Competitive Industries*, NBER Working Paper 8268. Research for the paper was supported by Microsoft and both authors also worked for Microsoft as consultants in the *United States v. Microsoft Corp*. case.

[18] See Lilienthal D. (1952): *Big Business: A New Era*, Ayer Co. Publ, Manchester.

In addition, Evans and Schmalensee recognize that many of the sectors they have identified as having Schumpeterian characteristics have network effects, that these effects tend to reinforce the market leaders' position, and that switching costs and lock-in may prevent displacement of market leaders. It is the task of competition policy to try to prevent the market leader in a network sector from developing into an entrenched dominant company.

In line with the general conclusion in the literature, Evans and Schmalensee do not contend that dynamically competitive industries should be immune from antitrust scrutiny, nor that the basic principles of antitrust should be modified.[19] Price fixing, foreclosure, market partitioning, etc., can and will still harm consumers, also in the 'new economy'. However, as is the case for every sector, including for the new-economy industries, competition policy needs to take account of industry or technology specific characteristics. In particular, according to Evans and Schmalensee, market definition and market power analysis may have to be modified when applied to highly innovative sectors.

In their view, traditional market definition and market share analysis does not acknowledge that, in Schumpeterian industries, companies are constrained from doing harm to consumers by dynamic competition. An essential element of market power analysis should be an examination of actual and potential innovative threats, also from alternative technologies. The authors argue that in these sectors a market share at best measures static market power. Static market power does not provide a useful measure of the real competitive constraints on the leading firms in these sectors. They are not constrained by the behaviour of existing competitors, as the latter are often few or absent and as scale economies and network effects are often effective barriers to the entry of similar products. The real and dynamic constraints come instead from firms actually or potentially making significant R&D investments to replace the current products. The question whether such investments are being made and how credible the threat might be cannot be measured by market share. Dynamic competition may not be effective when the leading company owns all the IP necessary for radical innovation or when it forecloses important distribution channels. It may also be that several companies are making or could make significant R&D investments and that experts consider the outcome of their rivalry to be in doubt, in which case dynamic competition may be effective.

In conclusion, there seems to be no conflict between innovation and a competition policy aimed at product market competition. Competition policy, by defending competition and open markets, will in general have a

[19] See also, for instance OFT (200): *E-Commerce and its Implications for Competition Policy*, Discussion Paper 1, p. 1: ". . . e-commerce will not give rise to any entirely new forms of anti-competitive behaviour, nor will it raise any new issues that cannot be dealt with under the existing competition law framework. However, . . . there are . . . areas where detailed application of the rules may require some adjustment."

positive impact on both static and dynamic efficiency. Companies under competitive pressure will be less complacent and will have more incentive to innovate and gain market share. Product market competition and a strict competition policy generally promote innovative effort. With the possible exception of those industries where, during an initial phase markets are continuously destroyed and replaced through drastic innovations, a company's position on the market is in general well reflected by its market share.

E. What About Current EU Competition Policy?

The next question concerns the application of Articles 81–82 and 87–88 EC. Is the EU conducting a competition policy that takes sufficient account of the specificities of IP without losing sight of our goal of protecting competition in the consumers' interest? We think it does and firmly believe that the EU's current competition policy is not resulting in any obstacle to innovation for the following reasons.

In the *Microsoft* decision, the Commission required Microsoft to disclose to other software developers certain information necessary to ensure the interoperability of their products (work group server operating systems) with Microsoft's dominant PC operating system. Although intellectual property rights were raised as a justification by Microsoft, the gist of the case concerned a refusal to disclose secret information, the innovative character of which was unclear. The information at stake was indispensable to compete viably against Microsoft in the relevant market, and Microsoft's refusal had already allowed it to achieve a dominant position and risked eliminating competition in that market. Competitors were prevented from bringing to customers new and improved products that interoperate with Windows, in contradiction with Article 82(b) EC.

It has been established in EC competition law, ever since the *Volvo* and *Magill* judgments,[20] that a refusal to license intellectual property rights may constitute an abuse of a dominant position under Article 82 EC in certain exceptional circumstances. The conditions identified by the Commission as warranting disclosure of information by Microsoft (indispensability of the refused right, risk of elimination of all competition, preventing the emergence of new products and services for which there is a potential consumer demand) were confirmed to be sufficient for that purpose in the recent *IMS Health* judgment by the Court of Justice.

[20] Case 238/87 *Volvo v. Eric Veng* [1988] ECR 6211; Joined Cases C-241 & 242/91 P *Radio Telefis Eirann (RTE) and Independent Television Publications Ltd (ITP) v. Commission ('Magill')* [1995] ECR I-743.

However, I should stress that the Commission always takes an extremely cautious approach in this area. In applying the so-called *IMS* conditions, the Commission will always carefully examine the impact of the refusal to supply (and of a potential order compelling the dominant firm to supply) on incentives to innovate.

As to *licensing agreements*, the Commission last year adopted new rules for applying competition policy to the licensing of patents, know-how and software copyright. The new block exemption regulation, Commission Regulation (EC) No 772/2004 on the application of Article 81(3) EC to categories of technology transfer agreements, was adopted together with a set of guidelines, the Guidelines on the application of Article 81 EC to technology transfer agreements.[21] The underlying philosophy of these new rules is that, in many cases, having an IPR will not automatically imply having market power, as sufficient competing technologies may exist. Licensing, also when it contains competition restrictions on the licensee or licensor, will therefore mostly be pro-competitive as it facilitates the integration of complementary assets, allows for more rapid entry and helps to disseminate technology and to provide a reward for what was usually a risky investment. However, it is that licensing agreements may also sometimes be used to restrict competition, in particular in those cases where one or the other party enjoys market power. It is therefore important in such cases to protect competition.

The new rules are firmly aligned on the Commission's new generation of block exemption regulations and guidelines for distribution agreements and horizontal co-operation agreements, without ignoring the differences that exist between licensing and distribution and between licensing and R&D agreements. These new rules represent an important improvement compared to the 1996 Regulation in terms of clarity, scope and economic approach. While providing more freedom to companies to draw up licence agreements according to their commercial needs, they will also enhance the protection of competition and, concomitantly, innovation. In addition, the new rules bring about an important degree of convergence between the application of competition policy to licence agreements in the EU and US.

As to *merger control*, the Commission has always paid attention to the innovation elements of a notified merger. The Commission always looks at the impact of a deal on R&D and innovation. It looks at the capacity of the merger to limit innovation in the market, for instance because the merger increases the risk of dominance leading to lower investment in research or because an innovative maverick is taken out of the market. But the Commission does not only exercise a negative control by trying to preserve

[21] Published respectively in OJ L 123 and OJ C 101, both of 27 April 2004. These instruments are also available on the website of the Directorate-General for Competition at: http://europa.eu.int/comm/competition/antitrust/legislation/entente3_en.html#technology. For a detailed description and analysis of both the Regulation and Guidelines, see the written contribution of Kjolbye L. and Peeperkorn L. for this volume.

incentives and abilities to innovate. The Commission also looks favourably at mergers that promote innovation through mergers and acquisitions. This is notably done when analysing efficiencies. The Commission last year published a set of Horizontal Merger Guidelines.[22] In these Guidelines, it is explicitly recognized that innovations, as dynamic efficiencies, are taken into account when assessing the positive impact of a merger.

Finally, as to *state aid*, state aid for innovation should only be used when it is an appropriate instrument to address a market failure hampering innovation, when it creates the right incentives, is necessary and when it distorts competition to the least possible extent. In November of 2004, the Commission adopted a *Vademecum* or 'Practitioner's guide' on state aid for innovation. This document describes the main market failures affecting innovation in the EU and outlines the various possibilities to grant state aid under the current rules. Following a public consultation of Member States and interested parties on the *Vademecum,* the Commission received positive comments substantially sharing its analysis of the market failures affecting innovation and asking it to close the gaps in the existing State aid rules. For this purpose it is planned in 2005 to adopt a communication on innovation to adapt the existing State aid rules in order to address the market failures not sufficiently addressed by the existing rules. This will allow the Commission to refine the economic analysis of the market failures affecting innovation and to put forward concrete proposals on how to address such failures. Following the public consultation on the communication, the proposals will then be transposed into the relevant State aid frameworks.

F. Conclusion

Our answer to the question posed in the title of this session is therefore that a fundamentally different competition policy approach for IP is clearly neither required nor justified, but that account needs to be taken of certain specific efficiencies and anticompetitive risks. This does not mean that we do not subscribe to the paramount importance of innovation for the growth of total and consumer welfare, as also recognised in the Lisbon strategy. However, there is no conflict between innovation and competition policy aimed at product market competition. Companies under competitive pressure will be less complacent and will have more incentive to innovate and gain market share. Product market competition and a strict competition policy work as an effective stick to promote innovative effort. Not only is competition a good

[22] *Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentration between undertakings*, OJ C 31 [2004].

thing for innovation, but the Commission's competition policy is also favourable towards innovation and taking into account considerations related to innovation efficiencies and market failure. That is an important contribution to the Lisbon strategy.

IV

Gustavo Ghidini and Emanuela Arezzo[*]

On the Intersection of IPRs and Competition Law With Regard to Information Technology Markets

A. Introduction

The problem of the so-called 'intersection' between intellectual property and competition law—which will be dealt with mainly from the European perspective—is rooted in the apparent antinomy of the respective (*direct*) goals: fostering innovation through the attribution of exclusive/excluding rights on one hand, and preserving freedom of access to the market on the other.

However, IPRs do not *per se* confer monopolies in economic sense, since they typically allow the entrance of substitute products onto the market. Only *in some circumstances* is it possible for the market power enjoyed by IPR-holders to grow into a true foreclosure of third party competition, leading to a *de facto* monopolization. We argue that in such cases, not simply competition is hampered but also the dynamic process of innovation is at stake. Consequently, in such cases antitrust remedies should 'march in' to preserve the ultimate goals of both branches of law.

In particular, focusing on the IT market(s), this paper will discuss whether and to what extent a right of access (typically in the form of a non-voluntary licence) to innovative 'creations' of information technologies protected by copyright or patents should be granted to third parties when the exercise of the excluding powers typically associated with IPRs would risk preventing those parties from operating as competitors on a related (downstream) market or even—more controversially—on the same market.

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B. IPRs and the Economics of Innovation

Before analyzing the merits of the issue, we deem it appropriate to briefly review the underlying technological and economic phenomena which have come to play a fundamental role in our analysis.

The first factor to be considered is the modern industrial trend towards *standardization*, i.e., the development of products and processes capable of 'working together' with other products and processes and therefore of providing *interoperability through compatibility*. Various beneficial economic effects are associated with this trend, such as the production of compatible products and services and therefore the creation of markets separate from that of the first standardized product.

However, in addition to these favourable effects, economic analysis has identified the risk of adverse impacts of standardization on competition and consumer welfare as well as on the dynamics of innovation. This is especially so when: a) standardized technology also becomes the dominant pattern on the market;[1] and b) when the *de facto* dominant standard is protected by IPRs, be they patents or copyrights.[2]

It is self-evident that, in the absence of IP protection, any standardized product or technology can be appropriated and adopted by direct competitors who are free to put on the market a newly improved version; also, the technology will be available for every firm willing to manufacture compatible products not directing competing with the standardized one. Conversely, if the standardized product is protected by intellectual property rights, the owner is afforded a greater degree of market power over the entire chain of products, and can significantly restrict, and even foreclose business activities, at least in downstream, related markets and often also in the same market, thus preventing even direct (horizontal) competition.

The risk of adverse effects on competition is further intensified if the market scenario is that of information technologies, often characterized by a 'systemic' form of competition. This term describes a type of market on which two or more (group of) firms compete, offering consumers not a single article but a series of articles which are not only standardized in the sense described

[1] Indeed, product standardization measurably decreases consumers' willingness to switch to different products and, conversely, forces suppliers—who must comply with consumers' preferences – to adopt and distribute the standardized good. The same phenomenon can and does happen (albeit with less intensity even in the case of non-standardized products) where, once an article in a certain 'basket' of substitutes becomes the most widespread and the most appealing to consumers (such as Coca-Cola or Scottex toilet paper), not only will consumers be reluctant to change products, but their preferences will directly and strongly influence traders to acquire the 'must carry' product in order not to risk losing customers to their competitors.

[2] Copyright, as we shall see, deserves special attention when dealing with information and communication standards.

above (i.e., manufactured in such a way that they can communicate with one another), but linked by a functional bond so that consumers only benefit from the joint purchase of the whole set of those articles. One example is the close functional link between the hardware of a personal computer and its operating system, and between those two items and programs such as browsers that allow users to surf the Internet.

In the presence of this type of competition, the effects of the 'self-perpetuating success' induced by consumers' preferences, which has already been mentioned when discussing the effects of standardization in general, tend to be strongly emphasized. This is due to what are generally called 'network effects' in economic jargon, otherwise defined as 'economies of scale in consumption'. The term describes the phenomenon whereby the utility obtained by a consumer from a given article grows when, and to the extent that, others use the same product.[3] This phenomenon acts as a powerful 'catalyst' of demand, with the result that, once a first demand for a given article has been created, it will be self-perpetuating, continuing to attract more and more consumers to its network (*direct* network effects). And the more the number of purchasers of the product grows, the more products *compatible* with it will be launched on the market, and this will make the basic product even more appealing to consumers (*indirect* network effects).

In other words, unlike what happens in the sectors of the traditional economy (where consumers' preference for a product which has become the most popular on the market does not in fact prevent—in the absence of specific foreclosing manoeuvres—other competing products from entering or remaining on the market), if network effects are present, consumers tend to be far more intensely 'trapped' ('locked-in') by the technology initially chosen. The costs initially incurred (of purchasing and learning the technology bought, and buying a range of compatible products) discourage consumers from changing over to a new product, and consequently constitute a true entry barrier for competing products, even if they are technologically superior. Although this trend has some immediate technical advantages for consumers, the obstacles to competition may be particularly strong. To quote Shapiro and Katz, with network effects, 'the strong get stronger and the weak get weaker'.[4]

This tangle of direct and indirect network effects leads straight to the *de facto* dominance of a single standard and marginalizes standards based on alternative technologies: even if the latter may be technically superior. This

[3] This definition has been provided by Katz and Shapiro (1985). Some other scholars give an even broader definition, explaining network effects as the situation where the value consumers attach to a certain good increases whenever another person acquires a compatible good (Farrel and Saloner, 1985). Therefore, according to both definitions, the more consumers buy a certain product or subscribe to a certain service, the more the latter becomes valuable and appealing to other potential buyers.

[4] Shapiro and Katz (1999).

occurred, for example, in the famous case of video recorders, where the success of the VHS technology *de facto* ousted the competitor Betamax from the market.

The anticompetitive effect is even wider in relation to secondary (related, downstream) markets. In the IT sectors, competition between products compatible with the standardized 'first' product means creating market niches which did not exist, and were not even originally contemplated by the owner of the standard. Thus, if access to the latter is refused, the owner will be enabled to extend ('leverage') his dominant position, foreclosing third parties even from these other downstream markets.

All this brings us back to the concern referred to above: in hi-tech sectors, where the presence of strong network effects often makes the probability of a customers' changeover to a different product minimal if not actually nil (even if the latter is technically superior to the former), intellectual protection over the standardized technology vests the IP owner with an extremely far-reaching power: namely, the power to control the degree of competition (in the relevant market as well as downstream related ones) throughout the level of *interoperability* she is willing to grant. This entails great risks not only for competition, well beyond the degree of restriction inherent in the proprietary paradigm, but also for innovation, whose dynamic process can in practice be blocked, or at any rate slowed. As observed by Professor Robert Pitofsky, former head of the US Federal Trade Commission, "the exclusionary rights granted by intellectual property protection, coupled with trends toward standardisation due to network effects, threaten to diminish market competition. Where this results in monopoly or near-monopoly, there can be negative effects not only on price and output, but also on innovation [. . .]".[5]

C. IPRs, Market Power and Standardization

1. The Commission's policy approach towards IPRs and standardization

It was the European Commission, when progressively drafting the Guidelines for the industrial policy aimed at liberalizing telecommunications, that first expressly and systematically expressed the kind of concern described above about the risks of 'proprietary closing' of communication and information standards. Thus, in relation to the software used for satellite communications, which have become *de facto* industry standards and are covered by

[5] Pitofsky (2001).

patents, the Commission, years before the Courts, stated that the use of common standards represents "an enabling element for effective free-market competition".[6] This conviction was again firmly stated as an expression of a policy line in the Commission's *Guidelines on Intellectual Property and Standardisation,*[7] the *'1999 Communications Review'* addressed to the European Parliament,[8] and finally, with an even broader scope, in the *Commission Guidelines on the Applicability of Article 81 of the EC Treaty to horizontal cooperation agreements.* In the latter Guidelines, the Commission stated that, where a *de facto* industry standard emerges, "the main concern will then be to ensure that these standards are as open as possible and applied in a clear non-discriminatory manner. To avoid elimination of competition in the relevant market(s), access to the standard must be possible for third parties on fair, reasonable and non-discriminatory terms".[9]

2. Commission practice and European Court of Justice's judicial approach

This pro-openness approach adopted by the Commission in formulating its policy lines is also reflected in its decisional practice (from *Magill* to *IMS Health*, to mention the best-known cases). The Commission's decisions indicate a substantial application of the doctrine of 'essential facilities'[10] to dominant standards protected by IPRs, with the result that refusal to give access on fair, non-discriminatory (and obviously non-exclusive) terms to third parties which would otherwise be 'bottlenecked' might constitute abuse of a dominant position.[11]

[6] See Directive 92/38, OJ L 137 [1992], Recital 7.

[7] *Commission Guidelines on Intellectual Property and Standardisation*, COM (892) final, 1992.

[8] See the *'1999 Communications Review'* addressed to the European Parliament, "'Towards a New Framework for Electronic Communications Infrastructure and Associated Services", COM (1999) 539 final, 10.11.1999.

[9] European Commission (2001): *Guidelines on the Applicability of Article 81 of the EC Treaty to horizontal cooperation agreements*, OJ C 3 [2001], paras. 143, 174.

[10] Briefly put, this doctrine states that a dominant firm which owns or controls an *essential facility* (defined by the Commission as "a facility or infrastructure without access to which competitors cannot provide services to their customers", see *Sealink/B&I Holyhead: Interim Measures,* 5 *Common market Law Review* 255, 1992) abuses its position if, without an objective business justification, it refuses to third parties access to those facilities. For comment relating to the essential facilities doctrine, its early applications (to physical infrastructures) and subsequent development in the field of IT, see, among many others, Werden (1987), Areeda (1990), Temple Lang (1994).

[11] Please note that, although we simply refer to the essential facility doctrine, it is worth specifying that, when such theory is applied to IPRs, some additional factors (the so-called 'exceptional circumstances' that we will find in the ECJ's *IMS Health* judgment) have been taken into account by the European judicial bodies in order to justify stretching the doctrine to intangible facilities. See *infra* Section D.1.

This approach has basically been followed by the Courts, although, it seems, with a recent significant restriction. In the *IMS Health* case, the Commission condemned IMS's refusal to grant a copyright licence over a modular structure used as a data-classifying criterion which had become the dominant standard on the market.[12] The Commission's decision thus facilitated the provision of competing information services and avoided the foreclosure of competition on the owner's market which would have resulted from refusal. However, the ECJ, in response to the preliminary reference of the *Landgericht* of Frankfurt am Main, explained that, in order for an abuse to exist, it is necessary, *inter alia,* that "the undertaking which requested the licence does not intend to limit itself essentially to duplicating the goods or services already offered on the secondary market by the owner of the copyright, but intends to produce new goods or services not offered by the owner of the right and for which there is a potential consumer demand".[13]

In other words, although implicitly recognizing the role of network and lock-in effects as factors rendering the data in question *essential,* the Court's judgment confirms the principle that the finding of an abuse is strictly dependent on the fact that the incumbent, by her behaviour, prevents access to the market to a new product/service, different from the one she produces, but whose development requires the use of the protected standard. Thus, it appears, the unlawful restrictions on competition are limited to those behaviours that impede, by means of the refusal to licence, the development of 'derivative' products/markets[14]. However, the requirement of *leveraging* does not seem to be a fundamental part of the rationale of the essential facilities doctrine, and imposing such an extra burden seems to unduly limit the application of the doctrine in the context of intellectual property rights.[15]

[12] See *NDC Health vs. IMS Health*, Case COMP D3/38.044, OJ L 59 [2002], paras. 176–178 (withdrawn on 13 August 2003—OJ L 268 [2003]. For a reconstruction of the facts and issues of the case see Arezzo (2004).

[13] See Case C-418/01 *IMS Health GmbH & Co. OHG v. NDC Health GmbH & Co. KG* [2004] ECR I-5039 .

[14] The judgement of the Court is vague at best. On the one side, the ECJ explains that the finding of the two separate markets can be satisfied even when "two different stages of production may be identified and [. . .] they are interconnected, inasmuch as the upstream product is indispensable for the supply of the downstream product" (*ibidem,* para. 45). The Court further explains that applying such reasoning to the case it would be significant to verify whether "[. . .] the 1 860 brick structure constitutes, *upstream*, an indispensable factor in the *downstream* supply of German regional sales data for pharmaceutical products" (emphasis added). Soon after, however, the Court restates the necessity that the exceptional circumstances sketched out in the Magill case be all cumulatively fulfilled in order to find an abusive conduct. First of all, the ECJ states that: "the undertaking which requested the licence intends to offer, on the market for the supply of the data in question, new products or services not offered by the owner of the intellectual property right and for which there is a potential consumer demand".

[15] Indeed, it is important to keep in mind that the preliminary finding of a dominant position, pursuant to stringent competition law standards, already imposes a high hurdle which is not present, for example, inthe American 'misuse' doctrine, specifically framed to grant a valuable weapon against IP owners' attempts to unduly expand the scope of their rights.

Besides, a construction of the doctrine that expressly requires two markets seems an excessive stretch of the theory that neither in its original version asks for such an element[16].

3. Standardization and interoperability: a few remarks on the European Microsoft case

However, the Commission did not step back. In the most significant part of the *Microsoft* decision of 24 March 2004, Commissioner Monti ordered Microsoft to disclose the specifications of the interfaces (note: not the source code) of the Windows workgroup server operating system to competitors (especially Sun Microsystems) to enable them to achieve full interoperability of their server operating systems with Microsoft's, and in particular to ensure the same degree of compatibility that exists between the latter and the Windows operating systems for personal computers designed to operate within a single network of computers.[17]

Basically, therefore, if we put aside the grounds, which debatably and unnecessarily focused on alleged leveraging of market power from the upstream market of PC client operating systems into the downstream market for workgroup server operating systems, DG COMP imposed a duty of disclosure so as to allow competition *on the same market*, namely that of workgroup server operating systems.[18]

The Commission therefore confirmed the basic pro-openness approach as expressed, *inter alia*, in the aforementioned Guidelines: "To avoid elimination of competition in the relevant market(s), access to the standard must be possible for third parties on fair, reasonable and non-discriminatory terms".[19] Here, Europe strikes a clear difference with the other side of the Atlantic. According to the dominant view in the US, as hinted above and as recently (indirectly) restated by the Supreme Court in *Verizon Communications Inc. v.*

[16] Pitofsky, Patterson and Hooks (2002).

[17] According to the Commission, the functioning of a (Windows) work group network "relies on an *architecture* of client-to-server and server-to-server interconnections and interactions, which ensures a transparent access to the core work group server services [. . .]", where "The common ability to be part of that architecture is *an element of compatibility* between Windows client PCs and Windows work group servers". See the Commission Decision, dated 24.03.2004, relating to a proceeding under Article 82 EC, case COMP/C-3/37.792, *Microsoft*, para 182. Pursuant to the Commission's analysis, Microsoft inserted specific code portions of the *PC client* operating system into work group server operating systems (Windows 2000) in such a way as to make the interoperability between *client* and *server* faster and more effective. *Ibidem*, paras. 177–178.

[18] Please note that, much in the same way, in the *IMS Health* case, the Commission, in its interim order, had tried to open up competition on the same (primary) market by compelling IMS to license its brick structure to competitors who sought to provide the same service (the RMP market report).

[19] 2001 Guidelines, *supra* n. 10.

Law Offices of Curtis V. Trinko LLP,[20] there is a traditional reluctance to find any infringements arising from refusals to license IPRs, which are viewed as: a) indispensable incentives to innovation, and b) already subject to (sufficient) 'built-in' limitations of time and scope[21].

D. IPRs as Intangible Essential Facilities

1. The beneficial effects associated with the application of the essential facility doctrine to IPRs

It must be emphasized that, even the Commission's broader pro-competitive approach views antitrust 'interference' on IPR-related exclusions as 'exceptional'. In particular, even according to the Commission's analysis, the doctrine of essential facilities, which legitimizes this interference, can only be applied if—in addition to the obvious finding of a dominant position—the abusive behaviour takes place under 'exceptional circumstances', represented either by foreclosure of a new product for which there is significant demand or by the presence of economic phenomena that strengthen the barrier to entry arising from the IPRs.[22]

In other words, the essential facilities doctrine does not provide easy access to IPR-protected technologies; in fact, it embodies *the most restrictive form* in which a right of access might be affirmed, under an antitrust rationale, in the issue at stake. This also applies, as suggested above, to the Commission's 'jurisprudence', which strengthens the severe approach displayed in cases

[20] *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko LLP*, 124 S.Ct. 872, 2004.

[21] Please note, indeed, that although the *Trinko* case did not directly involve intellectual property rights, the ruling of the Supreme Court appears of striking importance for our discussion. Indeed, in the words of Justice Scalia, "firms may acquire monopoly power by establishing an infrastructure that renders them uniquely suited to serve their customers. Compelling such firms to share the source of their advantage is in some tension with the underlying purpose of antitrust law, since it may lessen the incentive for the monopolist, the rival, or both to invest in those economically beneficial facilities. [. . .] Thus, as a general matter, the Sherman Act "does not restrict the long recognized right of [a] trader or manufacturer engaged in an entirely private business, freely to exercise his own independent discretion as to parties with whom he will deal." *United States v. Colgate & Co.,* 250 U.S. 300, 307, 39 S.Ct. 465, 63 L.Ed. 992 (1919)". See *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko LLP*, 124 S.Ct. at 880.

[22] It is not important here to question whether the essential facility doctrine might in truth be nothing but an expressive variation of the general antitrust doctrine of refusal to deal (see also Osti (2004), Hovenkamp (1999)). Here it is significant to focus on the substantive outcome that the application of such doctrine allows, i.e., its ability to sort out the specific strict circumstances where the IPR owners have been able to obtain a 'true' monopoly or quasi-monopoly (extended to a whole sector or activity).

regarding material facilities (see, for example, *Sealink Harbours*, 1992 and *Stena Sealink*, 1994).[23]

Thus, the dual danger otherwise inevitable from a 'loose' approach to the duty to grant access is avoided, namely a) unjustly 'taxing' technological improvements[24] and b) encouraging a path-dependent attitude by competitors. Indeed, the very strict, 'exceptional' conditions required by the essential facilities doctrine exert an all-too-reasonable pressure on competitors to roll up their own sleeves, instead of simply following the path established by the first innovator at the mere cost of a royalty.[25]

2. Economic reasoning behind the need to grant access to competitors/second comers

In another respect, the approach here supported cannot be assessed as 'punitive' for an owner of the IPR-protected standard that is subject to a duty to grant access on the basis of the essential facilities doctrine. Indeed, compelling access towards a certain resource does not imply a free of charge utilization thereof. The misleading assumption that openness will rule out any possibility to recoup R&D expenses has led many to oppose to the application of the essential facility doctrine, fearing an overall lost of incentives towards innovation. This could not be further from reality.

First of all, in purely *economic* terms, the perception of adequate licence royalties could well maintain, or even increase the owner's expectations of profit, and therefore her propensity to innovate. At the same time, the burden of paying royalties, if they are really 'fair', fair for the owner too, could maintain a significant competitive advantage for the owner in the form of a significant increase of rivals' costs.[26]

[23] The statements by the Commission in the Guidelines and Communications relating to telecommunications certainly used less restrictive language, but this is justified by the type of document in question, which announced *industrial policy* lines designed to promote the liberalization of entire macro-sectors.

[24] See Advocate Jacobs' Opinion in Case C-7/97 *Oscar Bronner GmbH & Co. v Mediaprint* [1998] ECR I-7791, para. 57.

[25] We would not support a *general* perspective of changeover from the property to the liability rule for fear that this might encourage a general tendency towards technological path dependence.

[26] In this regard, Baumol observes that the transfer of technologies to third parties is a valuable means of recouping investments—sometimes even more valuable than the owner's direct exclusive exploitation. Moreover, the licensing of a certain technology to third parties grants the owner a certain exclusive lead time over licensees because they will always need a good amount of time to properly learn how the intellectual assets work. Hence, competitors will need time to assert an effective pressure on the market and the IP-owner can use this time to build a good reputation (and tie consumers to her product) or improve upon her own technology. See Baumol (2002).

Moreover, in terms of *technological* development, the IPR holder could, *in several ways,* take advantage of the derivative innovation developed by (otherwise bottlenecked) competitors as a result of the right to access. Think, for example, to the benefits an operating system can derive from the disclosure of its APIs to manufactures of compatible programs which will enlarge its network and render it even more appealing to consumers[27]. But also, on a different level, think about the cross-license mechanism envisioned by Article 31(l) TRIPS in patent law where *highly meritorious (second) inventors can obtain a license on the first blocking patent provided that they license back their innovation to the first innovator.* Moreover, mutual technological enrichment appears to be the logic underlying also 'Open Source' licence mechanisms, whose rapid spread seems to be attributable precisely to the principle of 'make-and-share' *further* innovations.[28]

The above considerations regarding the pro-competition and pro-innovation advantages stemming from the application of the essential facilities doctrine to dominant standards protected through IPRs lead us to support the European attitude towards 'openness' and especially the Commission's approach with regard to foreclosure of access even in the very same market where the IPRs operate.

Here, we reject the objection that the antitrust 'interference', which allegedly deprives IPRs of their typical power to exclude, amounts to an encroachment of their 'essential function'[29].

This is not the case. Aside from the fact that such interference would only occur, as has been emphasized, in exceptional situations of foreclosure of competitors from a certain market, *even in principle* such pro-competitive 'interference' by antitrust law could in no way be seen as an encroachment of IPRs' function. In systematic terms, that function is to protect inventors against free riding by granting them a *micro*-monopoly, i.e., on the given specific technological *solution* they have developed, not a *macro*-monopoly on the industrial *sector* to which that solution belongs.[30] This assumption is

[27] Recall, indeed, that the adoption of an "open" strategy led eventually Microsoft to impose its operating system as *de facto* standard while its greatest competitor, Apple, who in turn pursued a closed strategy based on continued product design innovation, now detains only 5% of the market.

[28] Many eminent scholars have supported the idea of substituting the traditional patent system, at least for some specific subject matters, with an alternative regime mainly based on liability rules. See Kingston (1994); Reichman (2000) and (2003). Article 99 of the Italian copyright law (Decree April 21, No. 633) seems to follow the above rationale in that it establishes a liability rule system for engineering projects and similar works that amount to "original solutions to technical problems*"* (note here the terminology commonly used for patents). In such cases, whoever, within her/his business activity, implements the copyrighted projects without the consent of the author, owes the latter fair compensation.

[29] On a similar line of reasoning, see Antonelli (2003), explaining that technological knowledge should in itself be considered an essential facility.

[30] In this regard, although reaching different conclusions than the one supported here, Posner explains that the use of the word 'monopoly' with regard to IPRs "though common is

comforted by the indisputable principle that patent protection cannot cover a type of function even if the patented solution might be, at the date of filing, the first and only to satisfy that kind of usefulness. One is further comforted by the often recalled built-in pro-competitive features of the patent paradigm: from the public disclosure of a full and exact description of the invention to the non-voluntary (cross-) licence mechanism provided by Article 31(*l*) TRIPs in favour of derivative inventions of high technical and economic profile. Thus, *a fortiori,* no encroachment of IPRs' function can reasonably be affirmed when antitrust law intervenes to grant third parties access on reasonable terms in exceptional cases in which the otherwise 'normal' exercise of IPRs would prejudice the competition scenario on a whole *sector* of the market.[31] This also leads us to conclude that the antitrust 'correction' properly concerns not the IPR's exercise as such, but the *market situation* of competitive bottleneck that has grown 'around' the IPR—whether this is due to owner's manoeuvring or to objective circumstances such as the growth and maximization of 'locking-in' network effects.[32]

Thus, pro-innovation as well as pro-competition reasons support the approach defended here. This also applies, let us again emphasize, to (derivative) innovations situated on the same market as that of the standard owner. This is also supported by an additional reason: as experience shows, and as Professors Brian Arthur (1994) Rudy Peritz (2002) have convincingly illustrated, the situation that leads a product (or an information or communication standard) to dominate a market does not always reflect its greater efficiency/quality, but is sometimes due to random circumstances and sometimes to shrewd marketing and advertising operations, or other factors which can hardly be associated with the concept of 'competition on the merits'.[33] This factor constitutes a strong additional argument in favour of solutions which, by opening up access to the dominant standards for third parties, would increase the number of firms engaged in improving on the existing technology.

unfortunate, because it confuses an exclusive right with an economic monopoly. [. . .] A patent or a copyright does carve out an area of exclusive rights, but whether the right holder can use his right to obtain a monopoly return depends on whether there are good substitutes for his product [. . .]". See Posner (2005).

[31] Please note that in such cases licensees would not be free riders. Free riders do not pay.

[32] With regard to this issue, Josef Drexl has pointed out that "the copyright is not the cause of IMS's dominant position [. . .] the problem is that the lock-in effect excludes any other method of collecting data from the relevant market [. . .]". However, he added that "although it may not be denied that in *IMS Health* the copyright is not the cause of the dominant position, the copyright remains essential so that IMS Health can effectively exploit its dominant position" and therefore, even if the exclusive right does not represent in itself the cause of the overall monopolistic situation, "the competition problem may be cured by restricting the exercise of the exclusive right". See Drexl (2004).

[33] Arthur (1994), Peritz (2002).

E. IPRs and the theory of property

Incidentally, it might be worthwhile to compare the approach supported here with the continental European concept of property, rooted in Roman law and the *ius commune*. The doctrine of easements, or servitudes (the substantive ancestor, in our opinion, of the essential facilities doctrine[34]), shows that the theory of property law *encompassed* a duty upon landowners to grant access to 'neighbours' (including potential competitors)[35] in the specific cases where foreclosure of the latter would have thwarted (e.g., think of access to water) the efficiency of their farming/breeding activity and consequently the overall agricultural productivity.

Now, it seems to us that from a substantive point of view the application of the essential facilities doctrine to IPRs aims at achieving, 'from the outside' (i.e., through antitrust 'interference'), a result which is not obtainable 'from within' the IP paradigm (which is more tight than those concerning tangible goods, especially real estate): it is no coincidence, by the way, that most frequently the application of the essential facilities doctrine to IPRs has occurred with regard to copyright, by far the paradigm closest to derivative innovation.[36]

In order to better grasp the differing approaches towards the application of the essential facilities doctrine to IPRs, one may reflect on the enlightening Foreword by Judge Learned Hand to Volume L (1936) of the *Harvard Law Review*, dealing with the Anglo-Saxon "idea of property". Well aware that contemporary industrial development requires 'collaborative' relationships ("Every smallest step of modern industry depends upon a co-operation whose maintenance and regulation is the very stuff of law."), the famous federal judge recalled that the Anglo-Saxon theory of property did not include any significant 'social duties' (as had persisted under feudal law): "while the Tudors were forging the English commonwealth, legal theory created no new nexus of property and duties". As regards the American tradition, "it was impossible that the American colonists of the seventeenth century should have maintained, even if they had inherited it, a tradition of communal servitudes [. . .]. The individual asked little of society, and himself created whatever value his meagre possessions acquired. On the contrary he established, and handed on, *a notion of society as an aggregation of monads*,

[34] Here we are referring to the economic substance of servitudes, apart from the legal technicalities such as the real (*in rem*) nature and their intrinsic inherence to the property paradigm.

[35] Both in the (primary) market of agricultural commodities and cattle and in the (downstream) market of alimentary finished products.

[36] On this point, see Ghidini and Arezzo (2005), Falce (2003).

legally bound together as lightly as possible and for few common purposes" (emphasis added).

F. Strengthening the Pro-competitive Boundaries of Intellectual Property

The need to invoke antitrust law might often be avoided, thus drastically reducing the costs of litigation) if the paradigm of IPRs—especially copyright—were structured, or applied, so as to reconcile in a more balanced way the interests of the first and the subsequent innovators, who are often respectively incumbents and new or existing rivals. This seems most urgent in the IT field, more intensely characterized by network effects, and extensively dominated by the copyright paradigm, the least friendly to derivative innovation. To quote Hanns Ullrich,[37] "because legislators often fail to properly define the limits of exclusive property rights, the exercise of these rights in new situations, and especially with regard to new technologies, attracts scrutiny under competition law, with a view to preventing anti-competitive market foreclosure". [38]

G. Conclusion

A conclusion for this long reconstruction of the relationship between intellectual property and the competition rules can be summarized in a *caveat.* It would be somewhat over-simplistic to construe this interaction either in terms of the clash between the exclusionary features of IPRs and the principle of freedom of competition (from barriers and whatever behaviours can hinder competitive scenarios) or in terms of the reassuring prospect of substantial convergence of goals. Actually, each of these disciplines has a *direct* specific goal which cannot be 'harmonized' with that of the other. To give just one example, the defence of competition requires the prohibition (except within the strict limits of Article 81(3) EC) of agreements in restraint

[37] Ullrich (2004).

[38] In this respect, an example of a more competition- (and innovation-) oriented regulation of intellectual property could be found in the text of the proposed Directive on the patentability of computer-related inventions (doc. COM(2002)92–C5-0082/2002-2002/0047). It is interesting to note that the proposed Directive, which was blocked by the European Parliament in second reading (Doc. No. 11979/04), sought to transpose into the patent framework presented therein the pro-interoperability rules set forth by *Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs*, OJ L 122 [1991].

of trade *even if* they promote innovative technical/manufacturing relationships. Equally, as we have seen, the patent paradigm *only* gives free rein to derivative innovation developed by third parties (and therefore to their competitive capacity) on the conditions (relating both to merit and reciprocity) set out in Article 31(*l*) of the TRIPs Agreement, and hence in a much more limited set of cases than would be postulated by the prospect of full and complete promotion of subsequent competition, including even incremental improvements on prior art.

Analysis of the intersections between IP and competition law would therefore lead down a false trail if it attributed to the latter a *direct* role in promoting innovation, and to intellectual property a *direct* role in promoting competition. Rather, one should recognize *a dialectical exchange* between these two disciplines, which aim at *different but often synergic objectives,* and therefore often interact to eliminate situations which would obstruct both innovation and competitive dynamics. Thus, through this dialectical exchange, each discipline, by fulfilling its function, can also *indirectly* serve the aims of the other.

A convergence of goals can be acknowledged from an industrial policy angle, i.e., the objective of strengthening and promoting European competitiveness. Obviously, however, such a perspective may better serve for understanding the substantive grounds of a normative and jurisprudential evolution than for interpreting the positive law.

V

*Rochelle Dreyfuss**

UniqueWorks/Unique Challenges at the Intellectual Property/Competition Law Interface

The difficulty lies in the false syllogism: "All monopolies are bad. Patents are monopolies. Therefore, patents are bad."—Howard T. Markey, first Chief Judge of the United States Court of Appeals for the Federal Circuit.[1]

Geneticist Walter Gilbert introduces his public lectures on gene sequencing by pulling a compact disk from his pocket and announcing to his audience "This is you."[2]

In the past quarter century, competition law has significantly relaxed its position on intellectual property. In the United States, for example, licensing strategies that were once considered No-No's—*per se* illegal—are now analyzed under the rule of reason, with the result that many practices that were once attacked as anticompetitive are now commonly utilized.[3] To a great extent, the new attitude can be understood within the frame of antitrust enforcement generally, where it can be attributed to increased reliance on microeconomics, including a focus on the probable behaviour of rational actors and on institutions.[4] For intellectual property, however, the change also emerges from the realization that usually, patented inventions have substitutes, that copyrighted material can be re-produced through independent creation, and that these alternatives constrain the ability of rights holders to set high prices or limit output.[5] As the fallacy of thinking of

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[1] *Some Patent Problems*, 80 F.R.D. 203 (1978, 1979).

[2] Nelkin D. and Lindee M. S. (1975): *The DNA Mystique: The Gene as a Cultural Icon*, Freeman and Co., New York.

[3] *See, e.g.,* Lipsky A. B. (2003): "Antitrust Economics—Making Progress, Avoiding Regression" (2003) 12 *George Mason Law Review* 163, at p. 166 ("[a] consistent Justice Department enforcement policy of attacking a wide variety of patent licensing restrictions using *per se* rules (the infamous "Nine-No-No's") was explicitly abandoned in 1981.").

[4] *See generally*, Lipsky, *supra* n. 3; Merges R. P. (2000): "Intellectual Property Rights and the New Institutional Economics", 53 *Vanderbilt Law Journal* 1857.

[5] *See, e.g.*, U.S. Department of Justice and Federal Trade Commission (1995): *Antitrust Guidelines for the Licensing of Intellectual Property,* Section 2.2, available at www.usdoj.gov/atr/public/ guidelines/ipguide.htm (noting that "there will often be actual or potential close substitutes [for patented products and processes] to prevent exercise of market power.").

intellectual property rights as monopolies has become evident, competitive concerns about how they are exploited have receded.

The question for today is whether this relaxed attitude has gone too far. As important as these new analytical approaches have been, it can be argued that they are now too readily applied. There are advances protected by intellectual property laws that are (what might be termed) unique works and works that become unique. Examples include human genome sequences and computer operating systems. The former are intrinsically unique because, as the building blocks of the human organism, they are required in the study of human biological functioning. Works can become unique through, among other things, market forces. For instance, network, lock-in, and tipping effects can select from a multitude of possible operating systems, one particular system; the features of that system then become necessary to develop the complementary products that consumers wish to buy. Obviously, assumptions of substitutability do not hold for these works. More subtly, the scientific and market forces that create uniqueness can also undermine assumptions about rational exploitation. Thus, there is significant danger that rights in these works could be exercised in ways that impede innovation and impair consumer welfare.

Unfortunately, intellectual property law lacks the capacity to deal with these problems effectively. While the power associated with rights over unique works could be diminished by enhancing the criteria for receiving protection in the first instance or by redefining the reach of protection, these approaches would reduce incentives to innovate across the board. In contrast, competition law applies ex post. It has the analytical tools to assess the effect of specific practices on consumer welfare and can be read to require those who allege improper use of the power conferred by intellectual property rights to demonstrate competitive harm. As a result, competition law is arguably better suited than intellectual property law to curb excesses effectuated with these rights.

In this paper, I describe what I mean by unique works, why their prevalence is increasing, the difficulties they can create, and the problems intellectual property law has for dealing with them internally. Then, as a non-specialist, I gesture at ways that competition law might be adapted to respond to potentials for abuse.

A. Unique works

There is an undeniable irony in how competitive issues regarding intellectual property have played out. At around the time that the insight was taking hold that intellectual property products[6] are fungible, scientific, legal, and market

[6] Patents can be drawn to inventions that are products and to inventions that are processes. Unless otherwise specified, the word “product” should be read to encompass both.

forces were creating works, subject to intellectual property protection, that are unique or that can become unique.

As to scientific developments, the application of patent law to advances in biotechnology demonstrates how it is that unique works have suddenly become the subject of exclusive rights. In earlier eras, protection of unique works was avoided by considering only man-made, end-products eligible for patent protection. Because these were non-natural products, directed at consumers, unique materials, products of nature, fundamental principles of nature—information necessary for scientific discovery—remained in the public domain. For example, in *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, the Supreme Court held that packets containing mixtures of bacteria were "no more than the discovery of some of the handiwork of nature and hence unpatentable;"[7] and in *Brenner v. Manson*,[8] the Court defined the utility requirement as precluding protection over a work that had only a research use. But with the Court's recognition of patent protection on biologicals in its 1980 decision in *Diamond v. Chakrabarty*,[9] these dichotomies broke down, for advances in biotechnology are inherently dual in character.[10] For example, gene sequences or protein structures cannot be discerned until they are made in a stable form (genes) or isolated and purified (proteins). Since these activities require human intervention, gene and protein inventions are considered man made. And because they have immediate commercial application as diagnostics or treatments, they meet the utility requirement. Thus, they qualify for patent protection even though they are of central importance to biomedical research.[11]

The result is that it is now possible to acquire patent rights with two worrisome properties. First, because patent law gives patentees control over *all* usages of their inventions,[12] these rights can not only dominate the product markets associated with the utilities recited in the patent, but can also control competition for innovation affecting other product markets. For

[7] 333 U.S. 127, 131 (1948). See also, *O'Reilly v. Morse*, 56 U.S. (15 How.) 62 (1853) (holding that abstract principles are not statutory subject matter).

[8] 383 U.S. 519 (1966).

[9] 447 U.S. 303 (1980).

[10] See, e.g., Narin F. and Olivastro D. (1991): "Status Report: Linkage Between Technology and Science", 21 *Research Policy* 237 (using citation measures to demonstrate that the tie between science and technology is becoming closer over time and is more pronounced in drugs, medicine, chemistry, and computing than in fields such as machinery and transportation).

[11] See, e.g., Pires de Carvalho N. (2004): "The Problem of Gene Patents", 3 *Washington University Global Studies Law Review* 701 (arguing that gene patents fail to meet the condition of "alternativeness" which was implicit in prior law). The patentability of computer software post-*Diamond v. Diehr*, 450 U.S. 175 (1981), further complicates the problem in biotechnology because it allows patenting of bioinformatics inventions, see, e.g., Vorndran C. and Florence R. L. (2002): "Bioinformatics: Patenting the Bridge Between Information Technology and the Life Sciences", 42 *IDEA* 93 (categorizing bioinformatics inventions as upstream science).

[12] See, e.g., Merges R. P. and Duffy J. F. (2002): *Patent Law and Policy: Cases and Materials*, 3rd edition, LexisNexis, at p. 237 (giving as an example a leather tanning agent later found to be effective as an anti-AIDS drug).

example, Myriad Pharmaceuticals holds patents associated with the BRCA 1 and 2 genes and mutations, which cause many breast cancers. It can use these patents to prevent others from perfecting the method of screening for this form of breast cancer vulnerability, from creating rival gene-based screens, or from checking the reliability of Myriad's work (which is to say, from providing patients with second opinions). Indeed, Myriad can deny researchers interested in finding other sources of breast cancer the right to use its tests to identify tumours that are *not* caused by BRCA 1 and 2 so that they can be separately studied. It can also interfere with the availability of whole-genome screening and thus impede the development of personalized medicine.[13]

To some extent, this dominance can be viewed as the intended consequence of enjoying an exclusive right; if there is a problem with the control companies like Myriad acquire, it is arguably a matter of health, not competition, policy. However, to the extent that biotechnology patents dominate whole fields, there is a second worry: that these fields will not be explored efficiently if they are not researched competitively. As suggested earlier, the modern response to such concerns is that rational patent holders can be counted on to maximize their returns by either utilizing their opportunities themselves or by licensing others. In fact, an argument can be made that strong patents promote efficiency because rights holders enjoy the control needed to ensure appropriability, prevent duplicative efforts, share information, and otherwise orchestrate development.[14] At the same time, however, evidence is accumulating that patents over fundamental principles and products of nature cover advances that are too broad and lie too far upstream from commercialization to be mined effectively by individual patent holders.[15]

Rationality is, after all, bounded by intellectual and informational capacity.[16] The further upstream a discovery lies, the more difficult it

[13] See, e.g., Jaffe A. B. and Lerner J. (2004): *Innovation and Its Discontents: How Our Broken Patent System is Endangering Innovation and Progress, and What to Do About It,* Princeton University Press, pp. 15–16; Walsh J. P., Arora A. and Cohen W. M. (2003): "Effects of Research Tool Patents and Licensing on Biomedical Innovation", in Cohen W. M. and Merrill S. A., eds., *Patents In the Knowledge-Based Economy*, National Academies Press, at p. 312. In personalized medicine, an individual's entire genetic complement is screened and diagnosis and treatment are tailored to the vulnerabilities to which the individual is found to be susceptible.

[14] See, e.g., Schumpeter J. (1962): *Capitalism, Socialism and Democracy*, Harper, 3d ed.; Kitch E. W. (1977): "The Nature and Function of the Patent System", 20 *Journal of Law and Economics* 265.

[15] See, e.g., Arrow K. J. (1962): "Economic Welfare and the Allocation of Resources for Invention", in NBER, *The Rate and Direction of Inventive Activity: Economic and Social Factors*. See also Merges R. P. and Nelson R. R. (1990): "On the Complex Economics of Patent Scope", 90 *Columbia Law Review* 839, at pp. 874–75. On genomic inventions in particular, see Scherer F. M. (1002): "The Economics of Human Gene Patents", 77 *Academic Medicine* 1348, at p. 1359.

[16] See, e.g., Jones O. D. and Goldsmith T. H. (2005): "Law and Behavioral Biology", 105 *Columbia Law Review* 405, at p. 445 ("Bounded rationality postulates that deviations from rational choice are the result of (a) constraints on time and energy for gathering perfect information and (b) constraints on the brain's information capacities, wiring, and computing speed."). See also Mullainathan S. and Thaler R. H. (2000): *Behavior Economics*, MIT Department of Economics Working Paper No. 00-27, text available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=245733.

becomes to conceive of all its possible applications, and especially to figure out uses remote from the field of the patent holder's own expertise. Furthermore, those who have the expertise needed to innovate in remote fields may be barred by the patent from gaining enough hands-on experience with the invention to understand how they could use it,[17] or they may lack the motivation to invest in determining whether a particular research strategy is, in fact, workable.[18] Even when a potential licensee appears, the difficulty in evaluating these rights may complicate negotiations.[19]

To make matters worse, much of the upstream work that is patented is conducted at universities, where licensing is made more difficult because the interests of faculty and administrators are not always aligned with each other or with potential contracting partners from the for-profit sector.[20] In addition, university technology transfer offices have been known to lack the funding or experience to negotiate terms strategically. One example is a patent that Johns Hopkins licensed to Baxter Healthcare on an exclusive basis, apparently with little by way of agreements on milestones or benchmarks to ensure commercialization. When CellPro independently developed a use for the invention covered by the patent, it found itself unable to procure a license, even though Baxter had not made progress developing the technology itself.[21]

Finally, rational patentees may have incentives to exploit in a manner that is socially *inefficient*. If a patent protects sequential invention along a quality ladder, the best strategy for the patentee may well be to avoid cannibalization

[17] The patent's ability to bar further work depends on the scope of the research exemption; in US law, the general research exemption is becoming quite narrow, *see, e.g.*, *Embrex, Inc. v. Service Engineering Corp.*, 216 F.3d 1343 (Fed. Cir. 2000); *Madey v. Duke Univ.*, 307 F.3d 1343 (Fed. Cir. 2000). There is also a statutory exemption, 35 U.S.C.§ 271(e)(1), which the Supreme Court recently read fairly broadly, *Merck v. Integra Lifesciences I, Ltd.* U.S. 74 U.S.P.Q. 2d 1901 545 U.S. 193 (2005) (June 13, 2005). However, its field of application is confined to research "'reasonably related' to the process of developing information for submission under any federal law regulating the manufacture, use, or distribution of drugs," *id.*

[18] These problems arise because the unpredictability of the payoff makes it hard to negotiate rights before work is begun, but negotiating after costs are sunk can be equally difficult because the bargaining positions of the patentee is superior to that of the potential licensee. See, e.g., O'Donoghue T., Scotchmer S. and Thisse J.-F. (1995): *Patent Breadth, Patent Life, and the Pace of Technological Progress*, IBER Working Paper No. 95-242; Scotchmer S. (1996): "Protecting Early Innovators: Should Second-Generation Products Be Patentable?", 27 *RAND Journal of Economics* 322.

[19] Eisenberg R. S. (2001): "Bargaining Over the Transfer of Proprietary Research Tools: Is the Market Failing or Emerging?", in Dreyfuss R., Zimmermann D. and First H., eds., *Expanding the Boundaries of Intellectual Property*, Oxford University Press, Oxford.

[20] See id.

[21] See *Johns Hopkins v. CellPro*, 978 F.Supp. 184 (D.Del. 1997). Admittedly, Baxter offered CellPro a license. However, the offer was on very unfavorable terms: $500,000 upfront, applied against royalties "not to exceed 30% of the value of the kit" CellPro was developing–terms well above what Baxter had offered others. Significantly, the alleged reason for the disparity was that Baxter viewed CellPro as its leading competitor and ahead of it in development. See generally, Bar-Shalom A. and Cook-Deegan R. (2002): "Patents and Innovation in Cancer Therapeutics: Lessons from *CellPro*", 80 *The Milbank Quarterly* 637.

by developing products slowly and milking each market before progressing to the next one.[22] Patent holders may also rationally refuse to license patent rights to those who might develop superseding inventions on which the licensed patent does not read. An example is a patent on a research tool. The tool may be invaluable in finding important new products. However, if the patent does not cover these products, then the rights holder may not be able to fully appropriate the benefits unless it invents the products itself. Furthermore, in cases where the invention's potentials are difficult to evaluate, the risk-averse patentee may prefer to wait to license until the significance of the patented contribution is clarified.

The science of biology has, in short, created something quite new to patent law: works that are intrinsically unique—works that cannot be invented around, at least not for all purposes.[23] And now that patenting has moved upstream, the law is confronting—or will soon confront—similar problems in other scientific disciplines. Some, for example, argue that the Supreme Court's 1981 decision in *Diamond v. Diehr* has produced patents on similarly unique works in the field of computer science.[24] Furthermore, the problem of uniqueness is not caused only by characteristics inherent in particular sciences. Exogenous factors, such as market and government forces, can take works that were not intrinsically unique when created and turn them into unique works. In Wendy Gordon's words, a product that was once the art of someone's imagination can become a fact of the world and as such, create just as much of an obstacle to further development as a gene patent can pose to a genome scientist.[25]

[22] For examples, see *Special Equipment Co. v. Coe*, 324 U.S. 370 (1945) (allegation that patent applicant would suppress patent on pear canning process); *Rite-Hite Corp. v. Kelley Co., Inc.*, 56 F.3d 1538 (Fed.Cir. 1995) (refusing to incorporate invention into fully-automated product); Hamilton D. P. (2005): "How Genentech, Novartis Stifled a Promising Drug" *Wall Street Journal*, April 5, 2005, at A1.

[23] For the sake of completeness, it is worth noting that some applications of these inventions can be invented around. For example, the Federal Circuit has created a strict rule for interpreting the scope of genetic patents, see, e.g., *Regents of the Univ. of Cal. v. Eli Lilly & Co.*, 119 F.3d 1559 (Fed.Cir. 1997), as a result, it is sometimes possible to avoid a patent on a gene or protein by doing research on a different species or by adding or subtracting material remote from the locus of interest. Similarly, genes implicated in diseases (such as breast cancer) may sometimes be found next to specific DNA code that is not part of the gene. In such cases, the other code is a marker that could be used as a substitute way to detect propensity toward the disease. However, the efficacy of the substitute may be less than that of the actual mutation because its association with the mutation may be less than complete. Furthermore, there are also patents covering the use of markers to learn about associated mutations. See generally, Sevilla C., Julian-Reynier C., Eisinger F. *et al.* (2003): "Impact of Gene Patents on the Cost-Effective Delivery of Care: The Case of BRCA1 Genetic Testing", 19 *International Journal of Technology Assessment in Health Care* 2, at pp. 287, 296 (noting higher range of false positives for alternative methods of testing for breast cancers associated with BRCA 1 mutations).

[24] 450 U.S. 175 (1981). For an attempt to solve blockages in the software industry, *see, e.g.*, O'Rourke M. A. (2000): "Toward a Doctrine of Fair Use in Patent Law", 100 *Columbia Law Review* 1177.

[25] Gordon W. (1992): "Reality as Artifact", 55 *Law and Contemporary Problems* 93.

One avenue for "art/fact" creation is through the decisions of standard setting organizations, which have become more prevalent in both public and private spheres as the marketplace and its infrastructure have globalized; as interoperability has become a popular product feature; and as functional convergence has progressed in such sectors as communication, computing, and information dissemination. Some works become unique because they are generated in ways that are difficult to duplicate—such "sole source" works (telephone directories, satellite maps, and the like) can be created privately—for example, as a by-product of other activities—but they are often funded by the government and then turned over to private hands.[26] Government can also make works unique in another way: it can require the use of a particular work (copyrighted coding systems; official reporters) to apply for government benefits or to interface with government officials.[27] Unique works can, additionally, be created by pure market forces. Thus, while it is possible to formulate a multitude of operating systems that would support personal computing, the needs of those who write, buy, and use application programs combine to produce network effects that tip the market in the direction of one operating system—Microsoft's Windows, for example. Now that the market has tipped, Windows is locked in; in effect, it has become a unique work that is under Microsoft's control as a matter of patent, copyright, contract, and trade secrecy law.[28]

The ramifications of rights over exogenously created unique works are mixed. Like endogenously created uniqueness, there is no constraint on the pricing and access strategies of the holders of these rights. While it is true that some of these works are end-products that do not dominate broad swaths of further research (and consequently pose little threat to innovation), that is not always the case. In particular, lock-in, network effects, and tipping are often associated with highly complex systems, comprising many components, each of which may create wide-ranging innovation opportunities. Thus, the same concerns about the rational ability of the holders of biotech patents to efficiently mine their fields apply to those, like Microsoft, who hold rights

[26] See, e.g., *Feist Publications, Inc. v. Rural Telephone Service Co.*, 499 U.S. 340 (1991); Reichman J. H. and Franklin J. A. (1999): "Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contract With Public Good Uses of Information", 147 *University of Pennsylvania Law Review* 875, at p. 949.

[27] For examples of such situations, consider the works discussed in *Alcatel USA, Inc. v. DGI Techs., Inc.,* 166 F.3d 772 (5th Cir. 1999); *Practice Mgmt. Info. Corp. v. Am. Med. Ass'n*, 121 F.3d 516 (9th Cir. 1997); *Microsoft Corp. v. Jesse's Computers & Repair, Inc.*, 211 F.R.D. 681 (M.D. Fla. 2002); *Telecomm Technical Servs. v. Siemens Rolm Communications, Inc.,* 66 F. Supp. 2d 1306 (N.D. Ga. 1998); *West Pub. Co. v. Mead Data Cent., Inc.*, 799 F.2d 1219 (8th Cir. 1986).

[28] A full taxonomy of unique product is beyond the scope of this paper. It should be noted, however, that there may be products that are unique in spot markets. For example, to organizations that independently service Xerox machines, Xerox replacement parts are unique. See, e.g., *CSU, L.L.C. v. Xerox Corp.* (*In re Independent Service Organizations Antitrust Litigation*), 203 F.3d 1322 (Fed. Cir. 2000). See also, *Image Technical Services, Inc. v. Eastman Kodak Co.*, 125 F.3d 1195 (9th Cir. 1997).

over works that become unique by reason of complexifying factors.[29] Anyone who doubts this proposition might consider the level of innovation that was generated in telephony *after* AT&T was broken up.[30]

B. Intellectual Property Law

It could be argued that the problems posed by intellectual property rights over unique works should be handled through the intellectual property system. In patent law, the statutory requirements for protection could be reconfigured to prevent upstream inventions from being patented. The idea-expression and merger doctrines of copyright law[31] could be incorporated into patent law, so that inventions that merge scientific principles with technological application would be regarded as unprotectable. The non-obviousness requirement could be ratcheted up. And the scope of patents could be constrained—for instance, by limiting scope to the uses disclosed in the application or by adding an experimental use defence to permit unauthorized use in research. On the copyright side, the standard of originality could be raised and works that become unique could be reclassified as facts. For both copyrights and patents, the doctrine of misuse could be revived and strengthened.

Indeed, many if these ideas have been adopted[32] or suggested[33] in various countries and in a variety of contexts. However, these approaches are contro-

[29] Indeed, this was one of the concerns expressed by the district court in the portion of the *Microsoft* case examining the effects of Microsoft's efforts to suppress innovation in browser technology, *U.S. v. Microsoft Corp*., 84 F.Supp.2d 9, 111 (D.D.C. 1999) (Jackson, J.).

[30] This example was provided by my colleague Harry First. See also Jaffe and Lerner, *supra* n. 13, at pp. 49-51 (giving examples of refusals to license in other complex fields).

[31] See, e.g., *Baker v. Selden*, 101 U.S. 99 (1879); Computer Assocs. Int'l, Inc. v. Altai, Inc., 982 F.2d 693 (2d Cir.1992).

[32] See, e.g., *BGBl. 2005* I S. 146, which amends the German Patent Act to limit the scope of genomic patents to the use recited in the application; *University Of Rochester v. G.D. Searle & Co., Inc*., 358 F.3d 916 (Fed.Cir. 2004) (limiting scope in other ways); *Gentry Gallery, Inc. v. Berkline Corp*., 134 F.3d 1473 (Fed.Cir.1998)(same); *Regents of the Univ. of Calif. v. Eli Lilly & Co*., 119 F.3d 1559 (Fed.Cir.1997)(same); *Brandir Int'l, Inc. v. Cascade Pacific Lumber Co.*, 834 F.2d 1142 (2d Cir. 1987) (reclassifying a sculpture as noncopyrightable when it was reconfigured as a utilitarian bicycle rack); *Alcatel USA, Inc. v. DGI Techs., Inc.*, 166 F.3d 772 (5th Cir. 1999) (copyright misuse defense recognized); *Practice Mgmt. Info. Corp. v. Am. Med. Ass'n*, 121 F.3d 516 (9th Cir. 1997) (same).

[33] See, e.g. Berman H. and Dreyfuss R. (2006): "Reflections on the Science and Law of Structural Biology, Genomics, and Drug Development", 53 *UCLA Law Review* 871; O'Rourke, *supra* note 24; Leenheer D. and Zimmerman H. (2005): "It's an Original!(?): In Pursuit of Copyright's Elusive Essence", 28 *Columbia Journal of Law and Arts* 187. See also West J. K. (2005): "Intellectual Property Rights and Competition Policy with a Focus on Biotechnology", in *OECD Best Practice Roundtables in Competition Policy*, Working Paper No. 50 (January 21, 2005), available at http://ssrn.com/abstract=681195.

versial and they are controversial for good reasons. Patents on existing works are unlikely to be withdrawn on a newly-devised theory of the subject matter requirement because to do so would unsettle investment-backed expectations. '[[Limiting the exclusion to future advances would be a more viable approach, but imposing new and truncated definitions of patentable (or copyrightable) subject matter would make the prospect of exclusive rights less certain and jeopardize the capacity of the system to attract investment in emerging technologies. Excluding particular technologies from patenting would also, arguably, violate obligations under the TRIPS Agreement.[34]

Modifying other elements of intellectual property law is easier from the international perspective. However, these proposals also have problems. Thus, while it might make sense to limit the reach of upstream patents, operationalizing that approach would require difficult predictions about the length and course of future inventive streams.[35] Changing the standards for originality or inventiveness will not always help. Many of the works that are problematic are unique precisely because they are newly uncovered fundamental truths, which meet even the highest possible requirements for creative ingenuity.

Because a core problem with patents on unique works is that they cover activity remote from the patentee's own market, adjusting scope may appear to offer the most straightforward solution. However, limiting scope ex ante and across the board is undesirable because, as with subject matter criteria, it would put the incentive structure at risk: there are clearly some situations where utilities must be aggregated across a range of fields to produce sufficient rewards to motivate the effort required to innovate.[36] Adjusting scope at the back end, through defences, is thus more attractive. In fact, many countries have general research exemptions that operate in this way.[37] That approach has, however, been under steady attack in the United States.[38] One reason is that many of the most vibrant recent advances can be characterized as research tools, whose main market is research; unless an exemption is carefully crafted, it could eviscerate the possibility of any return. These

[34] *Agreement on Trade-Related Aspects of Intellectual Property Rights*, art. 27.1, Apr. 15, 1994, *Marrakesh Agreement Establishing the World Trade Organization*, Annex 1C, *Legal Instruments—Results of the Uruguay Round*, vol. 31, 33 I.L.M. 81 (1994) (prohibiting discrimination as to field of technology).

But see Dinwoodie G. B. and Dreyfuss R. (2004): "International Intellectual Property and the Public Domain of Science", 7 *Journal of International Economic Law* 431 (suggesting arguments why subject matter exclusions may not violate art. 27.1).

[35] Epstein R. (2003): "Steady the Course, Property Rights in Genetic Material", in Kieff F. S., ed., *Perspectives on Properties of the Human Genome Project*, Academic Press Elsevier, at pp. 153, 166 ("[I]t is easy to think of thousands of different patent pathways through which some new conception may travel in order to crystallize into a commercial application.").

[36] See, e.g., Scherer, *supra* n. 19.

[37] See, e.g., Japan Patent Act § 69; German Patent Act § 11(2). See also, proposed *European Community Patent Convention*, art. 27(b).

[38] See *supra* n. 17.

problems could be avoided with the doctrine of misuse because it is invoked only after the facts of a situation are clear. But doctrines of misuse are poorly accepted, in large part because they tend to be applied without sufficient attention to underlying economic realities (which may be to say, without utilizing the tools that modern economics has brought to bear in cases involving competition law claims).[39]

Rather than changing the law, an "internal" solution to the problem of unique works could be sought in the institutions that operate within the innovation community. For example, best practice guidelines have been issued by the National Institutes of Health (NIH).[40] These guidelines are intended to help universities become more sophisticated about their licensing activities. They are also designed to create new academic norms that promote sharing within the research environment even when exclusive rights are sought and licensed commercially. Scientific journals have similarly acted to generate, impose, and monitor principles on accessibility that are supportive of competitive research.[41] In some cases, scientists themselves have developed norms and institutions that promote and facilitate sharing.[42] Unfortunately, however, each of these initiatives has a limited reach. For instance, the NIH can only *directly* influence its own grantees; journal and databank policies only *directly* affect those who decide to publish their work. Sadly, as the scientific community has grown, it has become less cohesive. As a result, the ability of scientists to agree on norms and enforce them has diminished significantly.

Of course, new institutions could be developed. Lately, various proposals have been made to establish patent pools, clearing houses, joint ventures, and

[39] See, e.g., *USM Corp. v. SPS Technologies*, 694 F.2d 505, 511 (7th Cir. 1982) (Posner, J.) ("The doctrine arose before there was any significant body of federal antitrust law, and reached maturity long before that law (a product very largely of free interpretation of unclear statutory language) attained its present broad scope. Since the antitrust laws as currently interpreted reach every practice that could impair competition substantially, it is not easy to define a separate role for a doctrine also designed to prevent an anticompetitive practice—the abuse of a patent monopoly."); *Microsoft Corp. v. Jesse's Computers & Repair, Inc.*, 211 F.R.D. 681 (M.D. Fla. 2002) (rejecting copyright misuse as an affirmative defense); *Telecomm Technical Servs. v. Siemens Rolm Communications, Inc.*, 66 F. Supp. 2d 1306 (N.D. Ga. 1998) (same); *Bayer AG v. Housey Pharmaceuticals, Inc.*, 228 F.Supp. 2d 467 (D. Del. 2002) (rejecting patent misuse claim).

[40] See National Institutes of Health (2005): *Best Practices for the Licensing of Genomic Inventions: Final Notice*, Fed. Reg. April 11, 2005 (Volume 70, Number 68), pp. 18413–18415.

[41] See, e.g., Dreyfuss R. (2000): "Collaborative Research: Conflicts on Authorship, Ownership, and Accountability", 53 *Vanderbilt Law Review* 1161; Berman and Dreyfuss, *supra* n. 33.

[42] One example is the so-called "Bermuda rules", which were created at the International Strategy Meeting on Human Genome Sequencing held in Bermuda in 1996. See Bentley D. R. (1996): "Genomic Sequence Information Should Be Released Immediately and Freely in the Public Domain", 274 *Science* 533. Other examples are public, nonprofit databases, such as the Human Genome Research Project, which stores information gene and sequencing information about humans and other organisms, *see* http://www.ornl.gov/sci/techresources/Human_Genome/project/about.shtml and the SNPS Consortium, which collects data on single nucleotide genetic mutations, *see* http://www.ornl.gov/sci/techresources/Human_Genome/faq/snps.shtml.

other loose forms of association that facilitate rights sharing.[43] Such arrangements would not eliminate or limit intellectual property rights (in fact, they depend on them), but these institutional developments could make it easier to acquire the freedom to operate. For example, scientists are rapidly developing wholesale techniques for screening drug candidates against the proteins with which they would interact in the body. A protein pool would help bring such techniques to fruition because it would enable researchers to clear the relevant patent rights economically. Similarly, the availability of blanket licenses for early-stage work would help investigators researching new problems, who often do not know exactly what they are working with and therefore what rights they need to acquire. And although standard setting can cause works to become unique, standards setting organizations also have the power to aggregate intellectual property rights and require members to license them on reasonable terms. Thus, they too may be part of the solution to the unique works problem.[44]

It is, however, unlikely that pools (or other such alliances) can solve all of the problems associated with unique works. First, institutions such as clearing houses are valuable in part because they solve monitoring problems. ASCAP and BMI, for example, can keep track of how many times musical works are publicly performed more efficiently than individual rights holders can because they monitor performances and distributions for many copyright holders simultaneously. In contrast, many of the uses at issue here take place in the privacy of laboratories. Monitoring will be difficult for everyone, and there are few economies of scale to be enjoyed.

Second, arrangements such as pools solve the problem of aggregating rights, but not all of the problems of unique works can be attributed to the costs of aggregating. To the contrary, in many of the uniqueness situations, the rights are already aggregated by a single rights holder—Microsoft, for example. And even the holders of individual rights may have enough of a market to make it unlikely that they will be willing to contribute to a pool. Consider, for instance, Myriad. It does not need a pool to exploit its rights over BRCA 1 and 2. Nonetheless, its licensing practices could, as earlier noted, impede a whole range of research and therapeutic advances.[45]

[43] Clark J. *et al.* (2005): "U.S. Patent and Trademark Office, Patent Pools: A Solution to the Problem of Access in Biotechnology Patents?", available at http://www.uspto.gov/web/offices/pac/dapp/opla/patentpool.pdf; Shapiro C. (2001): "Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard- Setting", in Jaffe A. B., Lerner J. and Stern S., eds., *Innovation Policy and The Economy*, Vol. 1, MIT Press, at pp. 119, 121; Merges R. P. (1996): "Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organizations", 84 *California Law Review* 1293.

[44] The efficacy of these organizations is heavily dependent on their internal rules on reporting patent positions and agreeing to license freely, see Tsilas N. L. (2004): "Toward Greater Clarity and Consistency in Patent Disclosure Policies in a Post-Rambus World", 17 *Harvard Journal of Law and Technology* 475.

[45] Even if holders of gene patents were willing to license, if every gene is patented and each patent holder followed Myriad's pricing strategy, the cost would be prohibitive: there are around 25,000 genes in the human body; Myriad charges $1800 per test.

To put this another way, pooling arrangements work best when many patents are needed to create a single product. In such cases, patent holders have an incentive to contribute to the pool because without licenses from others, no one can bring a product to market. But upstream patents present the opposite problem: there are many products that can be derived from a single patent. The ribosome, a macromolecule composed of proteins and nucleic acid, which is the organism's machine for producing proteins, is an example. The patent covering crystals and x-ray diffraction patterns of ribosomal subunits is likely to cover much of the research on disease resistance, and to be the source of many future patented materials.[46] There is little economic impetus for the holders of this patent to contribute it to a pool of proteins, or to a pool of macromolecules—they own all of the rights they need to conduct their research; the social problem is that their claim (which is basically, to the visualization of a key organ of the body) is so broad, they may not mine the many prospects the ribosome presents effectively.

C. Competition law

The discussion points to several implications for competition law. Most obviously, it demonstrates why the law on refusals to license needs to be reconsidered: as we saw, problems of imperfect rationality combine with perfectly rational strategies to lead the holders of rights in unique works to keep their inventive opportunities to themselves. Their decisions are not disciplined by the market because there is—by definition—no way for those in the field to avoid the works covered by these rights. In these circumstances, refusals to deal create significant danger that progress will be slowed.

Nonetheless, there have been few situations (at least in the United States) where decisions blocking downstream innovation have been successfully challenged on competition law grounds. Courts tend to see the option of refusing to license as the essence of the right to exclude.[47] They view the rewards available through intellectual property as best captured by allowing right holders to make their own decisions on how works should be licensed and marketed (or not).[48] Courts are reluctant to take a position on the benefits of Schumpeterian versus competitive development or to reduce incentives to invent in the name of increasing the number of ways in which technological

[46] See Yale News Release, *Yale Scientists "See" Basis of Antibiotic Resistance*, April 22, 2005, available at www.yale.edu/opa/newsr/05-04-22-01.all.html.

[47] *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 US 405, 426 (1908); *CSU, L.L.C. v. Xerox Corp. (In re Independent Service Organizations Antitrust Litigation)*, 203 F.3d 1322 (Fed. Cir. 2000). See also*,* 35 U.S.C. § 271(d)(4).

[48] See, e.g., *Verizon Comm'ns Inc. v. Law Offices of Curtis V. Trinko*, 540 U.S. 398, 407 (2004).

challenges are attacked.[49] Absent a competitive relationship, they will not impose a duty to deal; indeed, without a demonstration that a defendant withdrew from competition, they are unwilling to infer an anticompetitive intent.[50] Finally, both the courts and the legislature regard compulsory licensing remedies as threatening the incentives intellectual property rights are intended to produce.[51]

In the few cases where the activities of rights holders have been questioned, the facts have been highly unusual and the results have been short lived or subject to criticism. For example, the Federal Trade Commission (FTC) sued Rambus alleging an intent to monopolize after Rambus failed to disclose its patent position to a standard setting organization, thereby allowing its technologies to become unique through inclusion in the standards the organization set.[52] However, the case is still pending, leaving its outcome uncertain. In any event, the reach of the FTC's theory appears to be quite narrow. It turns on whether Rambus had a duty to disclose its patent position before its inventions were included in the standard. But it is not clear whether Rambus had such an obligation and in the case of works that are unique when they are created or that become unique by forces outside the right holder's control, it is quite clear that right holders could have no such duty.[53]

In the merger context, the Antitrust Division of the Justice Department (DOJ) and the FTC have also shown some willingness to consider impacts on so-called "innovation markets," and have required licensing when there is a danger that the merged firm will not pursue research that could cannibalize one of the merging firm's products.[54] Their approach has not, however,

[49] Cf. *United States v. Microsoft Corp.,* 253 F.3d 34, 50 (D.C. Cir. 2001).

[50] *Office Airline Guides, Inc. v. F.T.C.*, 630 F.2d 920 (2d Cir. 1980). See also, *Trinko*, at 408–410 (distinguishing *Aspen Skiing Co. v. Aspen Highlands Skiing Corp*., 472 U.S. 585 (1985) on the ground that in that case, an inference of intent to commit competitive harm could be drawn from the fact that defendant was refusing to offer a product it had previously sold to the plaintiff and was continuing to sell to individual customers).

[51] See *Trinko*, at 407-408 ("Compelling such firms to share the source of their advantage is in some tension with the underlying purpose of antitrust law, since it may lessen the incentive for the monopolist, the rival, or both to invest in those economically beneficial facilities."); cf. *Special Equipment Co. v. Coe*, 324 U.S. 370, 374 (1945) ("[Congress] thus gave to the inventor limited opportunity to gather material rewards for his invention"); 379 ("Congress has frequently been asked to change the policy of the statutes as interpreted by this Court by imposing a forfeiture or providing for compulsory licensing if the patent is not used within a specified time, but has not done so") (reversing a decision to withhold a patent on the ground that the patentee intended to suppress its use); *Dawson Chemical Co. v. Rohm and Haas Co*., 448 U.S. 176, 215 (1980) (citing attempts to add compulsory licensing provisions to the Patent Act).

[52] *Rambus Inc.*, F.T.C. Docket No. 9302 (Feb. 23, 2004). See also, *In re Dell Computer Corp.*, 121 F.T.C. 616 (1996).

[53] The ALJ hearing the *Rambus* case did not think it had such a duty, and in related parallel private litigation, it was equally unclear what Rambus's duties were, see *Rambus, Inc. v. Infineon Tech. AG*., 318 F.3d 1081 (Fed. Cir. 2003). Cf., *E.I. DuPont de Nemours & Co*., 96 F.T.C. 653 (1980) (rejecting the notion that DuPont had a duty to share scarce resources).

[54] See *Antitrust Licensing Guidelines*, *supra* note 5, § 3.2.3 (defining innovation markets); *In re Ciba-Geigy Ltd*., No. 961-0055, 1996 F.T.C. LEXIS 701 (Dec. 15, 1996); "Symposium: A Critical Appraisal of the "Innovation Market" Approach" (1995) 64 *Antitrust Law Journal* 1; Yao D. A.

received broad support. It has been criticized as ungrounded in competition theory, as requiring highly speculative predictions about what products are on the horizon, and as necessitating a difficult determination on whether the merger would reduce research or synergize it.[55] Indeed, the DOJ and FTC explicitly favour a limited approach, stating that "innovation market analysis should be applied only where the innovation is directed toward a particular good and where the innovation can be associated with specialized assets or characteristics of specific firms."[56]

Arguably, the situation is somewhat different in Europe. There, the European Court of Justice (ECJ) has made clear that competition law can intervene in intellectual property holders' decisions, albeit only in "exceptional circumstances." However, it held that when a right holder enjoys a dominant position, such a circumstance can be created by a refusal, without objective justification, to license an indispensable intellectual property right to those who wish to offer "new products or services not offered by the owner … and for which there is a potential consumer demand."[57] For example, in a case involving sole-source works (television listings), it found it an abuse of a dominant position for the copyright holders to refuse to license when the refusal blocked the appearance of a new product (a weekly program guide), for which there was potential consumer demand and the refusal to license would eliminate all competition.[58] By the same token, Microsoft's actions, including its failure to disclose information that network effects made unique, received careful scrutiny in Europe.[59] It is not insignificant that these cases have all arisen in connection with copyrighted materials. In Europe, this approach is only needed for copyrights because European patent laws safeguard downstream competition in other ways, through research exemptions to patent infringement,[60] and with general compulsory licensing provisions

and DeSanti S. S. (1993): "Innovation Issues Under the 1992 Merger Guidelines", 61 *Antitrust Law Journal* 505.

[55] See, e.g., Rai A. K. (2001) "Fostering Cumulative Innovation in the Biopharmaceutical Industry: The Role of Patents and Antitrust", 16 *Berkeley Technology Law Journal* 813, at p. 827.

[56] Federal Trade Commission (1996): *Staff Report, Anticipating the 21st Century: Competition Policy in the New High-Tech, Global Marketplace,* Vol. I No. 5, available at http://www.ftc.gov/opp/global/report/ gc_v1.pdf.

[57] Case C-418/01 *IMS Health GmbH & Co. OHG v. NDC Health GmbH & Co. KG* [2004] ECR I-0000 para. 52 (judgment of the Court (Fifth Chamber) of 29 April 2004) (case involving a system for providing marketing data, which was made unique through market forces).

[58] Joined cases C-241/91 and C-242/91 *Telefis Eireann and Independent Television Publications Ltd v Commission of the European Communities (Magill)* [1995] ECR I-743, paras 53, 54.

[59] *See* Commission Decision of 24.03.2004 Relating to a Proceeding Under Article 82 of the EC Treaty (Case COMP/C-3/37.792 Microsoft), PP 3–13 (Apr. 21, 2004), available at http://europa.eu.int/comm/competition/antitrust/cases/decisions/37792/en.pdf [hereinafter EC Microsoft Decision]. See generally, First H., *Microsoft and the Evolution of the Intellectual Property Concept* (forthcoming).

[60] See *supra* n. 37.

that require dealing in circumstances in which refusals implicate the public interest.[61]

Admittedly, the reach of the European approach is debatable. Some would argue that the ECJ cases should be interpreted very narrowly, to deal only with situations where the underlying rights are "aberrations" in the sense that they represent minimal creative contributions or because they are not creative at all—to be parochial, they are so factual in nature, they would not be protectable in the United States.[62] Until a right holder refuses to license a major ("five star") intellectual contribution, the true significance of these decisions will not be known. But even if the significance of this approach proves limited, it is appropriate for unique works because their protection is equally aberrational. Some are, like fact works, essentially fundamental truths. Others became unique because of exogenous circumstances. In those instances, the payoffs associated with the rights are (as with minimally creative works) extraordinarily high relative to the inventive contributions made. Thus, like the European works, they present situations where there is little danger that reducing the licensor's flexibility would strip it of the ability to earn an adequate return on investment.

There are, however, ways in which the law in Europe may not go far enough. Because the focus is on the dominant position of the right holder, rather than on the unique quality of the product, there may be some slippage between the access that competition law assures and the access that the public needs. Further, the European cases have yet to flesh out what constitutes an "objective consideration" that would justify a refusal to license copyrighted materials. Finally, to the extent that the public interest in patent cases is protected by compulsory licensing provisions (rather than competition law on refusals to deal), the vitality of downstream innovation is heavily dependent on the circumstances under which such licenses will be granted. Arguably, current law takes a very hard line on this issue.[63]

Nonetheless, the European Commission and the ECJ have made several moves that are essential to solving the problem posed by refusals to license unique works. First, they appreciate that consumer harm is about more than just the price and output of existing products; that consumers have a strong interest in the development of new products through innovation. Second (and explicit in the Commission's decision in Microsoft), is an approach to

[61] See, e.g., Patents Act 1977 §§ 48A, 48B (U.K.); German Patent Act § 24(1). Other countries use this approach as well, see Canadian Competition Act, § 32; Patent Law 1999, § 93 (Japan); Patents Act 1990 (Cth), §§ 133, 163–167 (Australia).

[62] See Ritter C. (2005): "Refusals to Deal and Essential Facilities: Does Intellectual Property Require Special Deference Compared to Tangible Property", 28 *World Competition* 281, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=726683 (citing, among others, Cornish W. and Llewelyn D. (2003): *Intellectual Property: Patents, Copyright, Trademarks and Allied Rights*, 3rd ed., Sweet & Maxwell, London, p. 755).

[63] See, e.g., BGHZ 131, 247 (260) (Federal Supreme Court (Bundesgerichtshof) (strictly interpreting the question when a compulsory license is warranted).

incentives that looks at the industry and not merely at the right holder. Thus, the Europeans do not simply ask whether forcing a license will diminish the right holder's incentives to innovate; rather, they consider the impact of requiring licensing on innovation over-all. If the net effect of compelling a license is "a positive level of innovation of the whole industry," then intervening is considered welfare-enhancing.[64] Finally, the Europeans resist the temptation to draw from the absence of a record of downstream competition an inference that there is no competitive problem. They understand that the decision to use an intellectual property right to block product development is, in and of itself, a form of competition. In effect, they recognize what might be called "dormant competition:" the ability of a right holder to exert market power by occupying a prospect in order to do nothing at all with it—except to block entry by those who would otherwise mine it for the benefit of consumers.

To an extent, the DOJ and FTC have made these conceptual moves in merger enforcement. Ironically, however, these approaches are easier to deploy in the context of refusals to deal. With refusals to license, the structural impediments the DOJ and FTC encountered with regard to mergers are absent: very little speculation is required because the party seeking a license can explain what it wants to develop and can pinpoint the rights that it needs to acquire in order to do that work. It can, in other words, identify both the "particular good" to which the innovation is directed and the "specialized assets" it needs. For instance, there can be little speculation that access to the BRCA 1 and 2 patents are needed to do further work on breast cancer.

In the concrete settings of refusals to license, it is also evident why concerns about diminishing incentives to innovate may be overblown. To the extent that potential licensees are working in areas where the right holder lacks intellectual and informational capacity, there is no real diminution in incentives as the right holder would not have reaped the rewards of innovating in these areas anyway. In effect, a licensing requirement uses the superior knowledge of the potential licensee to correct mistakes caused by the imperfect rationality of the right holder. Enforcement, in short, solves the information asymmetry problem that would otherwise frustrate efficient innovation.

This is not to suggest that every refusal to deal would be a violation of competition law. But it does call for more scrutiny than U.S. law (and perhaps even European law) apparently provides. To prevent the erosion of incentives to innovate, a recalcitrant licensor should be considered to violate

[64] EC Microsoft Decision para. 783 ("However, a detailed examination of the scope of the disclosure at stake leads to the conclusion that, on balance, the possible negative impact of an order to supply on Microsoft's incentives to innovate is outweighed by its positive impact on the level of innovation of the whole industry (including Microsoft).").

competition law when a plaintiff can sustain the burden of demonstrating that a work protected by an intellectual property right is unique, that refusing to deal creates actual potential for harm in the sense that its use is necessary for a particular project that the right holder is not pursuing, that the project would enhance consumer welfare, and that the right holder lacks an incentive-based justification for refusing to license.[65]

Admittedly, this approach represents a significant departure from the traditional view in the United States, supported by language in recent case law suggesting that competition law should focus solely on price effects and output constraints.[66] However, that focus takes a profoundly static view of the economy, one that is increasingly inappropriate as consumer welfare becomes more heavily dependent on knowledge production. More important, it fails to keep competition law on intellectual property up to date with substantive shifts in the protection intellectual property law affords. When intellectual property law gave right holders control over a particular *product* in exchange for creating it, it was enough for competition law to prevent right holders from leveraging control over that product into control over other products (that is, over products the right holder had not created). But now that protection has moved upstream to give right holders control over a particular *innovation opportunity* in exchange for contributing the insight that created it, competition law must be structured to prevent right holders from leveraging control over the innovation opportunity in one product market into control over innovation opportunities in other product markets (that is, to innovation opportunities in product markets to which the innovator's insight did not contribute). A robust view of competition law, that takes account of the impact of refusals to deal on innovation, would accomplish that result.

It has also been suggested that any remedy for refusing to deal must be confined to rights holders who enjoy market power. While such a requirement would certainly accord well with the statutes and traditions of U.S. antitrust law, [67] and would neatly delimit the scope of the duty to deal, focusing only on situations in which the right holder already enjoys market power would be unproductive. In nascent technologies, defining a market will be difficult.

[65] These showings are not very different from those required of licensees by the Commission in *Magill* or in *Microsoft*. See generally, Evans D. S. and Padilla A. J. (2005): "Designing Antitrust Rules for Assessing Unilateral Practices: A Neo-Chicago Approach", 72 *University of Chicago Law Review* 73.

[66] See *Verizon Comm'ns Inc. v. Law Offices of Curtis V. Trinko*, 540 U.S. 398, 408 (2004). Judge Frank Easterbrook is a major proponent of this view, see, e.g., Easterbrook F. H. (2000): "Information and Antitrust", *University of Chicago Legal Forum* 1.

[67] See, e.g., Hovenkamp H., Janis M. D. and Lemley M. A. (2005): "Unilateral Refusals to License in the U.S.", Stanford Law School, John M. Olin Program in Law and Economics Working Paper No. 303, at pp. 19 and 28, available at http://ssrn.com/abstract=703161 (2005) (arguing that if unilateral refusals were actionable, it would be under § 2 of the Sherman Act, 15 U.S.C. § 2 (2004), which requires that the defendant has or is likely to obtain monopoly power).

Moreover, the key concern is that the right holder's refusal to deal prevents a market from emerging. Thus, the state of the existing market (and the right holder's share of it) ought to be irrelevant. Besides, as used here, the concept of unique work incorporates an adequate limitation on the reach of the obligation to license. These are, after all, not cases in which the mere existence of an intellectual property rights gives rise to a presumption of market power.[68] As suggested earlier, there was always a fundamental error in that presumption because most intellectual property rights can be worked around. Unique works are, however, a narrow category of materials where there are no work-arounds. Of course, it will sometimes be difficult to decide whether a work is unique in this sense. Indeed, one of the benefits of analyzing refusals to deal through an antitrust, rather than an intellectual property, lens is that the tools of antitrust law are then available to help determine whether particular rights are exerting a distorting effect on the downstream market.

There is, in addition, a practical problem with expanding the reach of competition law: it requires courts to remedy violations, presumably by imposing compulsory licenses. These would have to be priced and the more upstream the protected innovation, the harder the pricing decisions will be. There is a danger of systematic under-pricing, and that would have the perverse effect of reducing incentives and chilling innovation. Three points can be made. First, the availability of a competition law remedy should have much of the same *in terrorem* effect as the compulsory licensing statutes found in many national laws—the mere fact that a court *could* intervene may be enough to bring a recalcitrant licensor to the bargaining table, where it can structure its own licensing terms with its partners. Second, arguments about chill assume that current levels of return are needed to produce the optimal level of innovation. Empirically, it is not possible to determine whether this is true, but as was previously noted, for the unique works under discussion, it is unlikely. For example, works that become unique because of network effects earn returns that far exceed the intellectual contributions they represent.[69] Besides, courts hearing competition law claims will at least know what the potential market for the invention is; attempts to treat the problem ex ante or across the board (through, for example, changes in rules on the availability of injunctive relief[70]), are likely to do far more damage. For instance, a court

[68] To appreciate the difference, consider the opinion of the Federal Circuit in *Independent Ink, Inc. v. Illinois Tool Works, Inc.*, 396 F.3d 1342, 1344 (Fed. Cir. 2005) ("We hold that a rebuttable presumption of market power arises from the possession of a patent over a tying product"), *vacated*, 126 S. Ct. 1281 (2006).

[69] For a detailed discussion, see Ritter, *supra* n. 62.

[70] See, e.g., a proposal to amend U.S. patent law, Comm. Print, Bill to amend Title 35 United States Code, relating to the procurement, enforcement, and validity of patents, 109th Cong., 1st Sess. § 7 (2005), available at http://aipla.org/Content/ContentGroups/Legislative_Action/109th_Congress/House1/PatRefCmtPrt.pdf, which would give courts new authority to substitute monetary for injunctive relief. But see H.R. 2795, 109th Cong., 1st Sess., § 7 (2005), which deals only with preliminary relief.

awarded a royalty for use of a research tool can take account of whether the tool patent will cover the products produced through its use; a general research exemption cannot accomplish that result. Third, courts awarding relief might consider using the same practices that have developed in the private sector to deal with informational deficits and other uncertainties.

The last point suggests that recognizing the phenomenon of unique works should have a second impact at the competition/intellectual property interface: it should lead to less intense scrutiny of transactions in which rights are, in fact, licensed. In such cases, the rule of reason should be applied with an understanding of the special issues raised by these works. Thus, some of the practices that were once condemned should be recognized as representing important solutions to the unique works problem. For example, grant-back provisions and reach-through royalty terms are frequently found in licenses in the biotechnology industry. Although they have the capacity to reduce the incentive of licensees to innovate, they are utilized because they solve the vexing problem of evaluating the right to work a claim far removed from commercialization. Further, they spur licensing in situations where the licensor would otherwise be concerned that the development made possible through use of the patented invention would not fall within the scope of the patent. Undertaking the commercialization of inventions that are far upstream can entail a great deal of risk; some of these licensing strategies are valuable because that can spread that risk or shift it to the party best able to bear it. Because grant backs and reach throughs substitute future benefits for upfront payments, they may also ease negotiations among heterogeneous partners and allow transactions in the face of uncertain information.[71]

By the same token, enforcers should be more receptive to patent pools and to other loose forms of collaboration. While these arrangements will not always be addressed to the problem of clearing blocking patents (as is the case with classic patent pools[72]), and while they will not solve all of the problems engendered by unique works, they can play a significant role in enhancing downstream development. As Rob Merges has noted in other contexts, governments often instigate these sorts of institutional arrangements.[73] Because these institutions may be particularly difficult to establish in the

[71] See generally, *OECD Best Practices Roundtable*, *supra* n. 33, at 31-38. See also, *Bayer AG v. Housey Pharmaceuticals, Inc.*, 228 F.Supp. 2d 467 (D. Del. 2002) (holding that a reach-through royalty provision that based payment on future products not covered by the patent was not misuse when it was for the mutual benefit of the parties and the patentee was willing to consider other payment options).

[72] Blocking patents has been the concern that has most clearly motivated DOJ to approve pools, see, e.g., Letter from Joel I. Klein, Assistant Attorney General, Dep't of Justice Antitrust Div., to Garrard R. Beeney, Attorney, Sullivan & Cromwell (addressing the DVD patent pool), www.usdoj.gov/atr/public/busreview/2121.pdf (Dec. 16, 1998); Letter from Joel I. Klein, Assistant Attorney General, Dep't of Justice Antitrust Div., to Garrard R. Beeney, Attorney, Sullivan & Cromwell (addressing the MPEG patent pool), www.usdoj.gov/atr/public/busreview/1170.pdf (June 26, 1997).

[73] Merges, *supra* n. 43, at pp. 1355–1359.

context of unique works, those in the position to enforce competition law should be particularly careful to develop approaches that facilitate their creation.

In fact, some of the concerns that typically arise in connection with pooling initiatives may be less difficult to deal with when the rights in the pool cover unique works. Thus, it will usually be clear that the rights cover complements because, by definition, there are no substitutes. For the same reason, the rights contributed can be safely assumed to be essential. Conversely, it may be quite clear what constraints are necessary: because these rights are unique, it will be especially important to ensure that licenses are available to outsiders on reasonable terms; that patents can be licensed individually; and that flexible packages are available so that a scientist with a particular research agenda can license only the rights needed.

This is not to suggest that every licensing practice and every alliance will be non-abusive. Scrutiny of these arrangements will still be necessary. For example, before a practice that could potentially chill innovation is approved, enforcers should make sure that the licensing partners are dealing with a situation where there is a need for a special approach: that there is an informational asymmetry or uncertainties that derive from the complexity of the innovation or the long road to its commercialization. Alliances must, of course, be scrutinized so that they do not turn into cartels that entrench existing innovators at the expense of future entrants. If the inventions in a pool are far upstream, they may have multiple applications and new uses may become evident over time. Vigilance will be needed to prevent the pool from becoming a mechanism for reducing lines of inquiry and eliminating competition.

Conclusion

Intellectual property rights over unique works pose unique challenge to competition law. Because these rights cannot be worked around, they undermine assumptions about substitutability and the capacity of market forces to discipline the exploitation decisions that right holders make. These works are often upstream innovations close to fundamental truths of nature, or complex systems with many component parts. The informational uncertainties associated with such rights raise questions about the ability of right holders to efficiently develop their innovation opportunities.

To meet the concerns engendered by these broad rights, competition law will need to shift its focus: in a knowledge-based economy, consumer welfare depends on more than just price and output; the impact of particular practices on innovation must also be considered. In some cases, this may mean that licensing practices that were formerly viewed with considerable suspicion should now be accepted as solving problems of uncertainty. On the other hand, refusals to deal should now receive careful scrutiny. Right holders who occupy a prospect by blocking entry to those who would otherwise mine it for the benefit of consumers should be seen to be engaged in a form of competition, what might be called dormant competition. Just as intellectual property holders are prohibited from leveraging into product markets that they have not invented, they should be prevented from leveraging into innovation markets to which they have not contributed. While it is clearly impractical to ask enforcers to consider the full downstream consequences of particular practices, immediate ramifications are often quite clear. If the emergence of new products and nascent technologies are impeded, competition law ought to step in. Clearly, such *ex post* limitations on licensing practices are less intrusive into the incentive system than restructuring intellectual property law *ex ant*e and across the board.

VI

Simon Bishop and *Dan Gore**

From Black and White to Enlightenment? An Economic View of the Reform of EC Competition Rules on Technology Transfer

A. Introduction

It is often noted that Europe lags behind her international competitors in innovation. The European Commission has found that European research effort represents 1.96% of GDP, as against 2.59% for the US, 2.91% for Korea, and 3.12% for Japan. These differences are substantial: the EU's "innovation gap" represents a €120 billion shortfall in spend relative to the US, the vast majority of which is attributable to lower levels of private business investment.[1] This innovation deficit has been identified as threatening not only the Union's economic growth rate, but also its ability to meet its social and environmental goals. As such, innovation was a cornerstone of the 2000 Lisbon Strategy, which committed to establishing the European Union as "the most dynamic and competitive knowledge-based economy in the world" by 2010.

Against this background, there is a clear need to establish rules that create the environment in which innovation can flourish. It is in this context that the European Commission's approach to governing technology transfer agreements need to be considered. Such rules must provide not only the right basis for the diffusion of technology but also foster the incentives to innovate in the first place. Hence, although the Commission's rules regarding technology transfer are concerned with the diffusion of technology, their interpretation and application need to take into account not only the short to medium term effects of the rules governing the diffusion of technology (what might be termed the static effects on competition) but also, and at least as importantly, the long run effects on the incentives to innovate in the first place (what might be termed the dynamic effects on competition).

In April 2004, the European Commission published a new technology transfer block exemption, which came into force on 1 May 2004, together with guidelines on the application of Article 81 EC to technology transfer agreements. The Technology Transfer Block Exemption Regulation

* RBB Economics, London.

[1] Source: Commission website, http://europa.eu.int/growthandjobs/areas/fiche05_en.html.

(hereafter, "the TTBER") governs technology transfer arrangements whereby the owner of a technology permits another party to exploit that technology for the production of goods and services.[2] The accompanying guidelines (hereafter "the TT Guidelines") cover agreements falling within the scope of the block exemption and also those falling outside.[3]

This paper provides an economic commentary on the TTBER and its accompanying TT Guidelines, assessing to what extent its meets the fundamental objective of encouraging innovation at the same time as maintaining effective competition. The new approach embodied in the TTBER and, perhaps more importantly, in the TT Guidelines offers a radically different approach to assessing the competitive effects of technology transfer arrangements compared to the first technology transfer block exemption which came into force on 1st April 1996 (hereafter, "the 1996 Regulation").[4] The 1996 Regulation took the approach of establishing formal licence requirements that defined white and black lists of agreement types that would be presumed compatible and incompatible, respectively, with Article 81 EC. Agreements that did not fall within either of these lists would be evaluated on their own merits against the conditions in Article 81 EC. The 1996 Regulation provided for firms to pre-notify the Commission of licensing agreements to be evaluated against Article 81 EC prior to implementation.

Recognising that the 1996 Regulation and its white and black list approach was "overly formalistic and too complex and in addition too narrow in scope",[5] the Commission has quite rightly adopted an effects-based approach, in which agreements entered into by firms with market shares below certain thresholds are automatically exempted. In so doing, the TTBER follows developments in other areas in which Article 81 EC is applied, most notably in the application of Article 81 EC to the competitive assessment of vertical restraints.

This paper considers the economic basis for the new approach to technology transfer agreements. In general, the Commission's stated approach is to be unambiguously welcomed. In particular, it is to be welcomed that the new approach to assessing the competitive effects of technology transfer agreements explicitly gives weight to dynamic aspects of competition. Although one may quibble with certain aspects of the TTBER (in particular, the level at which market share safe harbours have been set), it represents the latest welcome step forward in the Commission's transformation of the competitive analysis of Article 81 EC, and one which will, or at least should,

[2] *Commission Regulation No. 772/2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements*, OJ L 123 [2004].

[3] *Guidelines on the application of Article 81 of the EC Treaty to technology transfer agreements*, OJ C 101 [2004].

[4] *Regulation (EC) No 240/96*, OJ L 31 [1996].

[5] Commission Evaluation Report on the Transfer of Technology Block Exemption Regulation No. 240/96 (2001) .

inform the competitive assessment of all agreements, whether or not they involve the transfer or licensing of technology.

The remainder of this paper is organised as follows. Section B provides a brief discussion of the general economic principles that ought to govern the assessment of technology transfer agreements. Our main theme is to highlight the importance of protecting the dynamic aspects of competition. A sound understanding of these economic principles is particularly important for the assessment of those agreements that fall outside the scope of the TTBER and therefore require individual assessment. Section C provides an overview of the TTBER and the accompanying guidelines. The most significant development in the revised block exemption regime is a move away from the previous form-based approach, towards an assessment policy based on economic effects. The new TTBER also introduces an automatic exemption "safe harbour" defined according to market shares. Sections D and E then provide an economic commentary. Section D first examines the market share thresholds contained in the TTBER. The use of market share thresholds follows the approach pioneered in the vertical restraints block exemption regulation.[6],[7] In the case of the TTBER, we argue that these market share thresholds have been set too conservatively. Section E then considers the underlying economic principles to conducting an individual assessment of those technology transfer agreements that fall outside the scope of the TTBER, by examining the basis for establishing the appropriate benchmarks against which to assess the competitive effects of a technology transfer agreement. In particular, in establishing appropriate benchmarks for assessing the competitive effects of a licensing agreement it is important to recognise that the decision to grant a license should not be seen simply as a decision to license or not to license. Rather, it must be recognised that the decision to grant a license is accompanied by the setting of a royalty rate (as well as other terms and conditions) with the licensee. Inevitably, rules that limit the licensing freedom of an owner of technology will inevitably result in a reduced incentive to license and an increase in royalty rates.

B. Some Basic Economic Principles

As background for evaluating the underlying approach adopted in the TTBER and, more importantly, the basis on which the compatibility of those

[6] *Commission Regulation (EC) No 2790/1999 on the application of Article 81(3) of the Treaty to categories of vertical agreements and concerted practices, 22 December 1999.*

[7] It could be argued that Article 82 EC is also subject to market share thresholds in the sense that if a firm is not dominant (i.e., has a market share below 40 %.) then its behaviour falls "outside the scope" of Article 82 EC.

technology transfer agreements that fall outside the scope of the TTBER and therefore require individual assessment is determined, this section provides a brief overview of the basic economic principles that ought to underpin the competitive assessment of technology licensing agreements.

Article 81 EC prohibits the use of agreements that prevent, restrict or distort competition. But this immediately raises the question of when competition can be said to be prevented, restricted or distorted. Traditionally, the Commission interpreted Article 81(1) EC in a wide sense so that nearly all agreements fall within its scope regardless of the market position of the parties involved or of the economic impact of the agreement. This wide interpretation of Article 81 EC has led many to perceive a fundamental tension between competition law and IP law.

But as the current approach to assessing Article 81(1) EC recognises, such a formalistic approach is at odds with economic reality. Standard economic theory dictates that unless firms possess and exercise market power, they are unable to affect competition adversely. In other words, in the absence of market power, agreements between firms will not give rise to anticompetitive outcomes. This distinction explains why it is perfectly consistent for a given contract clause in one agreement to have benign outcomes while in others for the same clause to be prohibited as anti-competitive. Whether an agreement adversely affects competition depends not its form but its impact on the market and that in turn will depend on the firms' position in the market.[8] This is indeed the underlying rationale for the Commission's continuing to move towards an economics-based approach that focuses on market power and market outcomes.

Moreover, as the TT Guidelines note, it is critically important not to focus overly on the "static" elements of competition but also to give due regard and weight to dynamic elements of competition.[9] Failure to give proper regard to the dynamic aspects of competition lies at the heat of the perceived tension between competition law and IP law. The perceived tension derives from the view that the goal of competition policy is to control firms' ability to acquire and/or exercise market power that allows price and profits to be raised above the level required to induce firms to continue supplying the good or service concerned (the competitive level). IP rights, meanwhile, have the deliberate aim of creating (limited) market power for firms, by erecting legal barriers to entry. These restrictions are necessary in order to protect the *ex ante* investments, which are often readily reproducible after the fact by firms that have

[8] This point is recognised, *inter alia,* in the Commission's block exemption regulation for vertical restraints, *op. cit.*

[9] The need to give proper regard to dynamic aspects of competition is not confined to the area of technology transfer. It arises wherever firms take *ex ante* investments and then take steps to protect the rewards from those investments. This is therefore a general statement regarding the application of Article 81 EC.

not made such investments, made in bringing the technology and/or product to market.

For example, consider a soft drinks manufacturer. While its competitors would be unable to free ride on a new bottling factory that it chose to build, the benefits of the investment being private to the owner, were the same firm to invest in developing and market testing a new recipe its competitors would, absent IP protection, be able to able to copy this recipe at negligible cost, thereby undermining the rewards to the initial investment. Anticipating that this will be the case, the firm would choose not to make the investment in the new product in the first place.

This has a detrimental effect on society because it denies consumers access to the new product that would have entered the market were the innovator able to be confident that it could earn a return on the innovation involved. The legal enforcement of IP rights allows this consumer welfare to be *partially* recovered. This partial recovery is a vital point: on a short-term view, the first best situation from a consumer welfare point of view would be that explained in the hypothetical situation above, whereby investment is made in bringing the new product or technology to market, where that product or technology is then made widely available so as to increase competition in its supply. But, as the above example makes clear, this will erode firms' dynamic incentives to invest in innovative activity. Consequently, this first best outcome, of having both the same level of investment made in brining the new technology to market and more intense competition in the supply of products using that technology, is unobtainable.

But to our minds, this does not represent a tension between competition law and IP law. Rather, the aims of competition policy and IP protection can be reconciled. Ultimately, both have the aim of promoting and improving consumer welfare: IP rights encourage the development of new products and production methods, while competition law is concerned with the distribution of the benefits afforded by prevailing technologies. As demonstrated above, excessive concern with the latter aim will prejudice the former and result in a third best outcome, where effective competition over existing products denies consumers the fruits of innovative activity.[10] Subjugating the control of market power to the respecting of IP rights does not prejudice the ultimate aim of competition policy to provide the best *attainable* outcome for consumers.

This implies that any rules covering the short run *diffusion* of technology need to take into account the long run effects of those rules on the *incentives*

[10] It should be noted that this outcome is third best because the alternative situation, in which the innovation is brought to market but not supplied competitively, must yield higher welfare than effective competition in the absence of the innovation. The innovation can only provide consumers with additional options; those consumers that do not value the innovative product at a higher than competitive price retain the option to consume the competitively supplied prevailing products.

to innovate in the first place. Maximising the return to an innovation is where technology transfer becomes important, being a mechanism by which patent holders can increase the value of their innovation by bringing it to market in the most efficient way. Consider, for instance, a university research unit that has developed and patented a new technology with applications in digital data storage devices, such as computer hard drives. The university will not have the pre-existing infrastructure and assets to exploit this patent's applications, and so would have to make significant investments to manufacture and market products on the basis of the technology. Firms already present in the digital storage device industry will, however, have in place the manufacturing and distribution assets and brand name with which to market the new product. Such firms would, therefore, be able to employ the patent at lower cost, and so at a higher profit.[11] By licensing its exclusive right to the patented technology to such firms, the university will be able to extract some of the additional rent that the licensee can earn on the patent, increasing the innovator's payoff relative to a situation in which it sought to use the new technology itself.

Technology licensing thus increases productive efficiency in the short run, by transferring patent rights to the undertakings best placed to use a new innovation, which benefits the innovator, so strengthening the dynamic incentives to invest in new technology. As such, licensing is generally regarded as a desirable phenomenon from society's point of view.

Licensing, however, can be a two-edged sword for innovating firms. IP rights enforce patents which grant their holders a degree of market power. By licensing, firms risk eroding this market power. For this reason, licensing agreements generally include restrictions on the behaviour of licensees and, in some cases, the licensor. To illustrate the way in which unrestricted licensing may erode the patent rights of a licensor, consider the above example of a digital disk drive patent holder that wishes to exploit its innovation through licensing, as an alternative to entering the product market in question. Were the innovator to licence this technology to a number of competing firms, the monopoly power provided by IP rights is removed, and returns will be eroded by competition. The value of a licence to the licensee is therefore significantly reduced if he expects to face competition from other licensees, or believes that there is a risk of such competition. In order to extract the full value of its patent from the licensee, the licensor therefore has an incentive to award an exclusive licence.

Another situation in which an innovator would seek to impose a restricted licence would be one in which the patent holder is already present in *some* of the product markets in which the new technology has applications. Such licence terms are referred to as "field of use" restrictions. If, for instance, the

[11] As well as increasing the value of the patent, allowing a technology's exploitation by a more efficient firm will reduce the price at which the resulting product is offered to consumers.

patent holder of the hypothetical data storage medium described above was Apple, one could imagine it permitting a licensee to utilise the new technology in the manufacture of video cameras, which Apple is not currently involved in, but not in the production of portable music players, on which market Apple's iPod device has a strong (and likely dominant) position. Such an agreement does not restrict competition in either market relative to the level that would have obtained in the absence of licensing; the net effect of the licence is to expand the new technology into video cameras, to the benefit of consumers in that market.[12] An unrestricted licence, on the other hand, would carry significant costs for Apple, by creating a risk that the licensee will use the licensed technology to enter the portable music player market and erode Apple's profits there. This risk will create an opportunity cost of licensing for Apple, which will lead to higher compensation being required to induce it to license the technology; this desired compensation may exceed potential licensees' willingness to pay, in which case licensing will not occur. In this case, Apple may choose to enter the digital video market notwithstanding the relative inefficiency of doing so, or may deny customers in this market the benefit of the licensed technology.

For these reasons, the costs of restrictions in licensing are generally regarded as being offset by the associated benefits in terms of improving static efficiency, with resultant improvements in the dynamic incentives to innovate. It is this presumption that has motivated the introduction of a block exemption for restrictive technology licensing agreements from the antitrust laws that would otherwise prohibit such restrictions.

C. Overview of the TTBER and the Accompanying TT Guidelines

The approach adopted in the TTBER differs significantly from the Commission's previous approach to technology licensing. Under the 1996 Regulation, exemption depended on whether the agreement concerned contained specific types of provisions, largely irrespective of the parties' market position or their competitive relationship with one another. An assessment of the agreements actual impact on competition was largely irrelevant. The TTBER adopts a new approach to determine whether the agreement falls within the scope of the block exemption and therefore whether an exemption from Article 81 can be automatically granted. The TTBER provides for the following:

[12] Nonetheless, as explained in Section E below, it appears that this field of use restriction could be ruled to be in breach of the TTBER and the accompanying TT Guidelines.

- An exemption will not apply if the parties' market shares exceed certain thresholds, applying a different approach depending on whether the parties are competitors or non-competitors:
  - Agreements between non-competitors can benefit from the TTBER provided that the market share of each of the parties does not exceed 30 per cent on the affected relevant technology and product market; and
  - Agreements between competitors can benefit from the TTBER provided that the combined market share of the parties does not exceed 20 per cent on the affected relevant technology and product market.

  Section D of this paper discusses the scope of these safe harbours, and their likely effect on the assessment of licensing agreements under Article 81 EC.
- Agreements are held to fall outside the scope of the block exemption where they include restrictions listed in Article 4 of the TTBER (the so-called "hardcore restrictions").

  As with the safe harbour provisions, the TTBER's list of hardcore restrictions distinguishes agreements between competitors and non-competitors, taking a broader view of presumptively harmful licence conditions in the former case. In broad terms, the hardcore restrictions encompass:
  - Restrictions on undertakings' freedom to choose their own price and output; and
  - The allocation of markets and customers between competitors (which may include the licensor).

  The hardcore list also prohibits restrictions on licensees' ability to exploit their own technologies where the licensor and licensee are potential or actual competitors.

  Perhaps the most noteworthy aspect of these lists, however, is not the licence terms that are classed as hardcore restrictions, but the terms that are explicitly excluded from the lists, and so do not fall under a presumption of anti-competitive effect. For instance, the TTBER does not classify as hardcore "field of use" or territorial restrictions whereby licensees are limited in the markets in which they can employ a licensed technology. Such restrictions can be valuable means for licensors to extract the full value of a technology, and so the best return on the associated investment, by protecting earnings from competitive erosion. The Commission's explicit removal of such restrictions from the presumptively anti-competitive hardcore list is a welcome development in its policy towards the assessment of technology licensing, and a step away from the form-based assessment framework previously in place.
- Finally, agreements that contain a clause listed in Article 5 of the TTBER (the "excluded restrictions", such as no-challenge clauses) require such clauses to undergo an individual assessment of their impact on competition.

The TTBER and accompanying Guidelines represent a welcome improvement on the previous framework governing technology transfer agreements.

The new approach offers greater flexibility over the formalistic straitjacket approach which characterised the former regulation, which sought to place agreement clauses into one of four categories: exempt, white, black and grey. These four categories are now reduced to two: hardcore restrictions and excluded restrictions.

Consistent with the underlying economic principles discussed in Section 2, the TTBER and its accompanying Guidelines go beyond merely extending the economics-based approach to technology transfer and licensing agreements by providing explicit recognition of the fact that a proper competitive assessment of such agreements must have regard to the dynamic benefits of competition. The Guidelines explicitly recognize the need to protect dynamic competition and hence the need to protect incentives to innovative activity, acknowledging the following general principles.

> ”In the assessment of licence agreements under Article 81 it must be kept in mind that the creation of intellectual property rights often entails substantial investment and that it is often a risky endeavour. In order not to reduce dynamic competition and to maintain the incentive to innovate, the innovator must not be unduly restricted in the exploitation of intellectual property rights that turn out to be valuable. For these reasons the innovator should normally be free to seek compensation for successful projects that is sufficient to maintain investment incentives, taking failed projects in account. Technology licensing may also require the licensee to make significant sunk investments in the licensed technology and production assets necessary to exploit it. Article 81 cannot be applied without considering such ex-ante investments made by the parties and the risks relating thereto. The risk facing the parties and the sunk investment that must be committed may thus lead to the agreement falling outside Article 81(1) or fulfilling the conditions of Article 81(3), as the case may be, for the period of time required to recoup the investment.
>
> In assessing licensing agreements under Article 81, the existing analytical framework is sufficiently flexible to take due account of the dynamic aspects of technology licensing. There is no presumption that intellectual property rights and licence agreements as such give rise to competition concerns. Most licence agreements do not restrict competition and create pro-competitive efficiencies. Indeed, licensing as such is pro-competitive as it leads to dissemination of technology and promotes innovation. In addition, even licence agreements that do restrict competition may often give rise to pro-competitive efficiencies, which must be considered under Article 81(3) and balanced against the negative effects on competition. The great majority of licence agreements are therefore compatible with Article 81.”[13]

[13] *TT Guidelines*, paragraphs 8 and 9, footnotes omitted.

Section D.2 setting out the application of Article 81 EC to various types of licensing agreement also refers to the general indispensability of licence terms such as field of use and territorial restrictions in inducing patent holders to license their technology. These statements are to be welcomed, recognition of the importance of long-run incentives to innovators being vital to achieving an appropriate balance between IP laws and competition policy.

Where a technology transfer agreement falls outside the market share safe harbour provided by the TTBER, it will be subject to individual assessment requiring an analysis of Article 81 EC. Article 81 EC sets out the Commission's approach to the legal assessment of agreements between firms with the potential to act to the detriment of consumers, and consists of two elements. The starting point is Article 81(1) EC, which prohibits all agreements between undertakings which have as their object or effect the prevention, restriction or distortion of cross-border trade. The second element, Article 81(3) EC, provides for four mitigating conditions, which, together, will excuse an agreement from this prohibition.

An individual assessment must assess both elements of Article 81 EC. Even for those agreements that fall outside the scope of the TTBER, the Guidelines explicitly state that the fact that an individual assessment is required does not carry with it a presumption that the agreement falls within the scope of Article 81(1) EC or, if it does, that it would fail to satisfy the conditions of Article 81(3) EC.[14] In particular, there is no presumption that Article 81(1) EC applies merely because the market share thresholds are exceeded.[15]

Indeed, the TT Guidelines go further, and offer what might be termed a second safe harbour by stating that outside the area of hardcore restrictions, Article 81 EC is unlikely to be infringed where there are four or more independently controlled technologies in addition to the technologies controlled by the parties to the agreement that may be substitutable for the licensed technology at a comparable cost to the user.[16] More importantly, and in line with the basic economic principles discussed in Section B, the Guidelines state that any assessment of whether an agreement falls within the scope of Article 81(1) EC must take into account the *ex ante* investment and risks relating to the technology under consideration.[17]

Evaluating whether an agreement has the effect or object of distorting competition, the TTBER Guidelines set out two standards against which an agreement must be considered: its effect on *intra-technology* competition between firms employing the same patent, and its effect on *inter-technology* competition amongst firms not using a common technology, but, nonetheless

[14] *TT Guidelines*, paragraph 37.

[15] *TT Guidelines*, paragraph 130.

[16] *TT* Guideli*n*es, paragraph 131. However, it remains to be seen how relevant this second safe harbour is in practice given the caveats on substitutability at "comparable cost".

[17] *TT Guidelines*, paragraph 147. The same considerations apply to the application of Article 81(3).

competing. This two-part benchmark for assessing the impact on competition is discussed in more detail in Section E.

The Guidelines offer further information on how the Commission believes an individual assessment investigation of technology transfer licences under Article 81 should be conducted. The Guidelines identify the potential harms brought about by licensing agreements as facilitating of collusion, allowing the foreclosure of competitors either by raising rivals' costs or reducing their revenues, or a direct lessening of intra-technology competition through non-compete or territorial terms (notwithstanding this latter class of restrictions being omitted from the hardcore list of *presumptively* harmful restrictions).[18]

For those agreements that are held to fall within the scope of Article 81(1) EC, an assessment of whether an exemption under Article 81(3) EC should be granted is required. Article 81(3) EC sets out four conditions that an agreement caught under Article 81(1) EC must meet if the identified harm to competition is to be offset. These conditions require an agreement:

- Contribute to improving the production or distribution of goods or to promoting technical or economic progress; and
- Allow consumers a "fair" share of the resulting benefit; and
- Not impose restrictions that are not indispensable to the attainment of these objectives; and
- Not afford such undertakings the possibility of eliminating competition in respect of a substantial part of the products in question.

The TT Guidelines also offer guidance on the assessment of the countervailing benefits recognised by Article 81(3) EC, which focus heavily on the efficiency benefits.[19] In respect of relevant efficiencies, the Commission notes the productive efficiency of bringing products based upon patented technology to market with the assets or expertise of firms engaged in the relevant activities. In respect of the indispensability of licence terms to the achievement of such efficiency, the TT Guidelines note that, while firms are not required to consider "hypothetical and theoretical alternative", they must explain and demonstrate why "seemingly realistic and significantly less restrictive alternatives" would not afford the same efficiencies. The third condition of Article 81(3) EC requires that consumers receive a "fair" share of the benefits, which the TT Guidelines interpret as requiring an assessment of whether claimed efficiencies will affect pricing and output decisions, or, alternatively, whether consumers will benefit from new and improved products. While the TT Guidelines are correct to recognise the validity of these efficiencies, it is notable that the emphasis is on short run benefits, with no explicit mention made of the positive role of fostering dynamic incentives for innovation.

[18] *TT Guidelines*, paragraphs 141–145.

[19] *TT Guidelines*, paragraphs 146–151.

The final Article 81(3) EC condition is an absence of a substantial distortion of competition. The TT Guidelines stress that such a competitive assessment must take account of the particular facts and circumstances of the markets, technologies and agreements concerned, and that there can be no simple checklist approach.[20] Relevant factors to be taken into account include the nature of the agreement, the parties' positions on the relevant markets, the strength of competitors and buyers, and entry barriers.[21]

D. Market Share Thresholds

The preceding section described the assessment of licence agreements under the TTBER as consisting of essentially three elements, including the use of market share thresholds. Only agreements between parties with market shares that satisfy the market share thresholds of the TTBER can be automatically exempted (subject to the other elements being satisfied). All other agreements are subject to individual assessment under Article 81 EC. The market share thresholds are therefore an important feature of the TTBER and the level at which they are set will affect the number of agreements that benefit from the block exemption.

Although agreements between parties with market shares that do not satisfy the market share threshold cannot be presumed to be incompatible with Article 81 EC, setting the market share thresholds too low is not without costs. On the basis of the safe harbour thresholds set out in the TTBER, an important question immediately comes to mind: how many agreements will actually fall within the scope of the TTBER? The thresholds are set at 30% for agreements between firms that do not compete in the same market and at just 20% *combined* share for firms that are actual or potential competitors. These market share thresholds are low, particularly with reference to the safe harbour levels defined in the vertical restraints block exemption. Technology transfer agreements can be considered analogous to vertical agreements between firms, both involving a firm granting rights to a firm at a lower stage in the chain of production, while imposing limits on the extent of those rights. Similarly, vertical restraints are generally presumed to provide efficiency benefits in respect of the distribution of products that outweigh any negative impact on competition. The benefits of vertical restraints, however, are purely static, paralleling the short run effects of technology transfer agreements; there is no complementary effect on innovation, as is the case with intellectual property licensing. To put it another way, the costs of regulatory intervention

[20] *TT Guidelines*, paragraph 133.

[21] *TT Guidelines*, paragraph 132.

discouraging technology transfer agreements are similar to those of dissuading vertical distribution agreements *plus* the additional cost in respect of disincentivising investment in innovation. Given this, it is surprising that the block exemption in respect of the former activity is more generous in its approach than is the block exemption covering IP licensing. We are unaware of any empirical studies investigating the market shares of parties to technology transfer agreements, but suspect that only a small proportion of agreements would actually qualify for block exemption under the TTBER safe harbours. Indeed, in many cases, innovative technologies will serve to create new product markets on which the patent holder and its licensor will hold a 100% market share.

It is therefore likely that a large proportion of technology transfer agreements will, in practice, not benefit from the block exemption that is intended to encourage such agreements. Indeed, the amount of detail presented in the Guidelines on the individual assessment of licence agreements under Article 81 EC provides at least implicit recognition that many licensees and licensors will be required to undertake an individual assessment.

Setting aside the level of the market share thresholds defined by the TTBER, the use of market shares to assess licences may also present practical difficulties. First, the calculation of market shares presupposes a definition of the relevant markets. Over years of economic-based antitrust enforcement, a voluminous literature has developed on the topic of market definition, which remains a controversial topic over which informed observers can, and often do, hold divergent reasonable beliefs. An example of this was the 2002 cruise line mergers, in which the US Federal Trade Commission and the European Commission came to differing conclusions on the relevant product market while the UK's Competition Commission was "not able to come to a single view".[22] Furthermore, while market definition will never be an exact science, it becomes all the more subject to debate in application to technology markets as per the TTBER. Frequently, at the time of entering into a licence agreement it will be unclear how the new technology concerned will, once commercialised, fit into existing markets, or, alternatively, whether it will come to represent a new and separate market. Consider, for instance, the licensing of the hypothetical data storage technology described in the example in Section B. At the point of licensing there will be very limited qualitative evidence, and no data, to indicate the applications for which this technology will be suitable. It may be developed into a product that defines a whole new product market, for instance a mass storage portable video player. Moreover, the technology may lead to a product that provides the same function as existing products, but that which proves a sufficient improvement to become a separate market over time. It might be argued that this was the case with

[22] See "Goldilocks and the three bears—the story of market definition and the cruise mergers", RBB Brief 11, at http://www.rbbecon.com/publications/downloads/ rbb_brief11.pdf.

music CDs, which initially competed with cassette tapes, but ultimately came to delineate a separate relevant market.

It cannot therefore be excluded that, even where the parties have defined markets in good faith for the purposes of assessing whether their technology transfer agreements fall inside or outside the scope of the TTBER, competition authorities might reach a different conclusion. Although this risk arises with the use of all market share thresholds, it does demonstrate the costs to setting overly cautious market share thresholds.

A related consequence of the TTBER's use of market shares as the determinant of the safe harbours is the introduction of inter-temporal uncertainty. Under the 1996 Regulation, firms that sought to fit an agreement within the white list of permitted agreements could be confident that the licence would remain legal throughout its duration. A licence that meets the safe harbour standards of the new TTBER at negotiation, however, cannot be guaranteed to continue to do so in the future. This uncertainty is particularly severe in the case of licensing new technologies whose applications are uncertain, as in the above example. As the Commission notes, a new to market technology will have a zero market share, which will rise once the ensuing product reaches the market.[23] Indeed, as suggested above, it is not unusual for new technologies upon commercialisation to define new markets on which they hold a 100% share. This approach, which, to some extent, serves to punish parties' success, is unique in competition policy, effectively imposing retrospective regulation. There is, for instance, no threat of a cleared merger being unwound if the resulting entity does indeed transpire to hold market power. A licence agreement negotiated under a safe harbour block exemption may well fall outside the relevant thresholds during its lifetime, however, and become subject to a different regulatory regime. Consequently, at the negotiation of a licence for a new technology there will be considerable uncertainty about the level that market shares will reach during the agreement's lifespan, and commensurate uncertainty as to the legal treatment that the agreement will receive. While Article 8(2) EC of the TTBER does allow for a two year "grace period" before safe harbour exemption is withdrawn from a licence once the parties' shares rise beyond the applicable threshold, this does not serve to remove the risk borne by parties seeking to negotiate an agreement the legal treatment of which may change at some point in the future.

[23] *TT Guidelines*, paragraph 70.

E. Establishing Appropriate Benchmarks

In conducting an individual assessment of those technology transfer agreements that fall outside the scope of the TTBER, it is important to establish appropriate benchmarks against which the competitive effects of such agreements are evaluated. The TT Guidelines contain two benchmarks, both of which might be applicable to the analysis of the competitive effects of a given restriction.

- Paragraph 12(a) asks: Does the agreement restrict actual or potential competition that would have existed in the absence of the contemplated agreement?
- Paragraph 12(b) asks: Does the agreement contain restrictions to actual or potential competition that are not objectively necessary for the existence of the agreement?

The first benchmark is uncontroversial, assessing the competitive effects of an agreement with reference to a counter-factual whereby the licensor opts to produce itself on the basis of its patented technology, rather than licensing to a third party. This is a reasonable situation to consider, and captures the problem that competition authorities should be concerned with: whether the licence permits the innovating firm to increase or extend any market power that it may legitimately enjoy as a result of IP protection provided as a reward for innovation. Where a technology transfer licence does not create market power beyond that that would arise from the licensor exploiting its patented technology itself, it is inappropriate for competition authorities to intervene. As Professor Carl Shapiro stated in his report for the OECD regarding restrictions that simply limit the extent of use of the licensor's technology: "Such restrictions will not typically prevent competition that would have taken pace in the absence of the license".[24]

However, the second benchmark is more controversial and can be interpreted as imposing on licensors a *duty* to create competition. The Guidelines suggest the pursuit of a counterfactual defined as the best possible short-term competitive outcome that could be obtained, *given* that the new technology exists and that is to be licensed.

From a purely *static* viewpoint of competition, this approach appears appropriate: a licence agreement that does not maximise consumer welfare is detrimental for consumers and therefore competition. As emphasised in Section B, however, the competitive assessment cannot be properly confined to considerations of static competition, but must also take into account

[24] Shapiro C. (2002): "Competition Policy and Innovation", OECD Directorate for Science, Technology and Innovation Working Paper 2002/11.

dynamic aspects of competition. The world does not operate as a one-shot game, but instead a repeated game, in which firms will make decisions regarding investment in innovation based on, *inter alia*, the observed behaviour of competition authorities. Taking a static view, of seeking to extract the best possible short term competitive outcome, is thus to overlook the dynamic nature of the innovative process. Before intervening, due account must be given to the fact that certain technologies only exist because firms previously invested in developing that technology in the belief that they would be able to profitably exploit the use of that innovation for the period provided for by IP law.

The paragraph 12(b) test can be illustrated by way of the example of a field of use restriction, as set out in Section B. That example explained why a firm with a patent over a new technology for small scale digital hard disk drives may choose to licence this technology for a limited range of applications so as to prevent its IP rights being eroded in the markets in which it itself operates. One could imagine Apple permitting a licensee to utilise a new digital storage technology in the manufacture of video cameras, which Apple is not currently involved in, but not in the production of portable music players, on which market Apple's iPod device has a strong (and likely dominant) position. Such an agreement does not restrict competition in either market relative to the level that would have obtained in the absence of licensing; the net effect of the licence is to expand the new technology into video cameras, to the benefit of consumers in that market. This agreement would, however, breach the Guidelines' 12(b) benchmark, by reducing competition relative to the outcome of an unrestricted licence between the two parties. While this situation, whereby the licensee would have the option of entering the portable music player business to compete with Apple's iPod, appears attractive, it falls into the category of being an unobtainable first best outcome—in the absence of the restriction, Apple would likely choose not to licence the technology in order to protect its position in the portable music player market, excluding video camera consumers from the innovation.

In the short-term, this response means that the 12(b) test has reduced consumer welfare in the video camera market,[25] with no offsetting benefit in the market for music players, in which the new technology remains the sole property of Apple. Furthermore, in the long run, dynamic incentives are harmed, because the removal of licensing revenues that would have been earned by licensing to video camera producers reduces the value of the patent to Apple, and consequently its incentive to invest in future innovative activity.

Alternatively, Apple may, in the face of limitations on the restrictions it can impose on its licensees, choose to enter the video camera market itself to exploit its patent in this market. This course of action will necessarily reduce

[25] The term "market" is used here in a very loose sense.

the value of the innovator's patent, however, where, in the absence of the 12(b) test, it would have chosen to offer a restricted licence to a firm already present in the market. Such a reduction in the value of a patent will result in some lessening of incentives to innovate.[26]

Paragraph 12(b) therefore tends to reduce rather than extend the *diffusion* of patented technology and to lead to higher rather than lower royalty rates. Neither of these outcomes are attractive taking into consideration the goals of competition policy. The main problem with the benchmark presented in paragraph 12(b) is to view the licensing decision as a dichotomous one: to license or not to license. But in general, firms licensing their technology will also be negotiating over royalty rates. The fewer restrictions that a licensor can place on the use of its technology, the higher, *ceteris paribus*, the royalty rates it will require.

The contradiction between seeking the first best outcome pursued by the 12(b) test and the protection of intellectual property rights can be seen in the three potential negative effects of restrictive licensing identified at Section IV of the TT Guidelines. These negative effects are:

1. Reduction of inter-technology competition;
2. Foreclosure of competitors by raising their costs; and
3. Reduction of intra-technology competition between undertakings that produce products on the basis of the same technology.[27]

The third effect refers directly to the reduction of competition between downstream producers that share a common technology, while the second states that restrictive licence agreements could result in the foreclosure of competitors. This latter appears to apply to intra-technology as well as inter-technology competition. To the extent that it does, however, both of these potential negative effects are precisely the intended consequence of IP laws: to prevent competition eroding the returns to a particular innovation's patent holder.

In light of the above, it appears that the test at paragraph 12(b) can only serve to increase uncertainty and risk for parties: the inclusion of the test in the Guidelines can only cast doubt on the application of the Article 81(3) EC exception. This test does not offer any offsetting benefits, and so it is not obvious why the authors have included this provision in the Guidelines. The test appears to be intended to parallel the inter- and intra-brand competition

[26] Surprisingly, the TT Guidelines argue that such a scenario is irrelevant, and that "claims that in the absence of a restraint the supplier would have resorted to vertical integration are not sufficient" to demonstrate indispensability under Article 81(3) EC, because vertical integration depends "on a broad range of complex economic factors." It is entirely feasible, however, that a licensors' descending order of preference would be a restricted licence, vertical integration, and only then an unrestricted licence. It is furthermore instructive to bear in mind that an often cited reason that firms choose to vertically integrate is avoidance of intrusive or burdensome regulation.

[27] *TT Guidelines*, paragraph 141.

test applied more generally in the assessment of concerted practices, as set out in the *Commission Guidelines on the Application of Article 81(3) of the Treaty.*[28] Paragraph 18 of these Guidelines sets out a similar two stage test, asking first whether a restrictive agreement diminishes competition between brands that would have existed in the absence of the agreement, and secondly, whether the form of the agreement restricts competition relative to an agreement that the parties could, from an objective perspective, have reached.

While such an assessment standard might be appropriate for some agreements (for example, agreements that do not affect dynamic incentives), it is not for agreements involving technology transfer. As emphasised throughout this paper, such agreements need to take due account of the dynamic aspects of competition. This requires the protection of intellectual property rights, even at the expense of short run competitive considerations.

On the basis of the forgoing discussion, application of the test proposed at 12(b) is likely to prove detrimental to consumers. However, it is not clear how this test is to be employed in practice. As noted above, the detailed discussion of how Article 81(3) EC should apply to restrictions in licensing agreements takes a pragmatic view to assessment, which respects the dynamic incentives that nurture investment in innovation. In the section detailing field of use restrictions, as considered above, for instance, the TT Guidelines state that "[i]f the licensor could not prevent licensees from operating in fields where he exploits the technology himself or in fields where the value of the technology is not yet well established, it would be likely to create a disincentive for the licensor to license or would lead him to charge a higher royalty."[29] It therefore appears that the TT Guidelines consider that the objective indispensability test will generally apply and therefore will limit the occasions in which the 12(b) benchmark for assessing intra-technology restrictions is applied.

However, such a viewpoint may turn out to be overly optimistic. The 12(b) test is an important element of the TT Guidelines and, as such will influence both national competition authorities and national courts. This will increase uncertainty facing firms, and so serve to dissuade socially desirable technology licensing. In particular, the inclusion of an objectivity measure introduces a measure of uncertainty for licensors, which, as with the question of market definition, can never be certain that their good faith belief regarding a restriction's objective necessity will accord with the courts'. In particular, even if a firm concludes based on a reasonable, good faith internal assessment that it would prefer not to license its technology, competition authorities or the courts might still conclude that the restriction was not "objectively necessary." As a result, the approach set out in paragraph 12(b) raises the potential of imposing significant business risks on a wide range of licensing provisions. The result of such business risk will inevitably be to

[28] *Commission Guidelines on the application of Article 81(3) of the Treaty*, OJ C 101 [2004].

[29] *TT Guidelines*, paragraph 182.

discourage many licensing agreements. The approach suggested by the TT Guidelines' paragraph 12(b) therefore risks undermining a licensors' ability to profit from its patent, and so the value of its innovation, and consequently its incentive to innovate. While the 12(b) test improves consumer welfare in the short term, for a given technology, it will erode the innovation that ultimately drives the development of better products for consumers at lower cost.

To summarize, there is no "free lunch". The Commission cannot expect to force firms to license their technology without giving rise to significant detrimental effects. First, innovation will be reduced (adverse effects on dynamic competition). Second, firms will most likely end up charging higher royalties (adverse effects on static competition). Indeed, it is unclear why the benchmark set out in paragraph 12(a) is not considered to be both sufficient to protect competition and superior in terms of promoting innovation and diffusion.

F. Conclusion

This paper has offered a critical view on the Commission's revised technology transfer block exemption regulation. This is not, however, to suggest that the regulation as a whole is not an improvement on the form-based 1996 Regulation, nor that it will have the "chilling" effect on innovation that some commentators suggested the draft regulation and guidelines, as offered for consultation, would have had if enacted.[30]

The TTBER and the accompanying TT Guidelines contain a welcome recognition of the importance of protecting the dynamic incentives that intellectual property rights provide for firms to invest in innovative activity. Overall, the TTBER represents the latest welcome step forward in the Commission's transformation of the competitive analysis of Article 81 EC and one which will, or at least should, inform the competitive assessment of all agreements, whether or not they involve the transfer or licensing of technology.

However, there are two aspects of the regulation that may limit the effectiveness of the TTBER in its stated aim of encouraging firms to enter into IP licensing agreements. First, the block exemption itself appears to be overly tightly defined, with the result that many of the agreements that the TTBER purports to encourage will remain unaffected by the block exemption and will

[30] See, for instance, Muysert P. and Lind R. (2004): "The European Commission's Draft Technology Transfer Block Exemption Regulation and Guidelines: A Significant Departure from Accepted Competition Policy Principles", 25 *European Competition Law Review* 181.

be subject to costly and uncertain individual assessment under Article 81(3) EC. Secondly, the TT Guidelines suggest that in applying the TTBER the Commission will stray beyond the limits of the static benefits a competition authority can seek to secure whilst safeguarding innovative incentives.

Furthermore, the national courts now entrusted with applying the block exemption to technology licensing agreements may encounter practical problems in defining the appropriate markets for technology and products based thereon, and in determining the objective necessity of licence terms. By increasing uncertainty these aspects of the new regulation may discourage some socially desirable licensing activity.

VII

Lars Kjøelbye and *Luc Peeperkorn**

The New Technology Transfer Block Exemption Regulation and Guidelines

A. Introduction

Having been responsible recently for drafting the new Commission Block Exemption Regulation for technology transfer agreements[1] (the TTBER) and the Commission's Guidelines on the application of Article 81 EC to technology transfer agreements[2] (the Guidelines), we are not best placed to critically examine these new rules. We therefore concentrate in this paper on providing a summary and, where considered useful, certain clarifications of the new rules. To start with our conclusion, the TTBER and Guidelines represent an important improvement compared to the previous Regulation in terms of clarity and scope and economic approach. While providing more freedom to companies to draw up licence agreements according to their commercial needs, they will also enhance the protection of competition and therewith innovation. The new rules bring about an important degree of convergence between the application of competition policy to licence agreements in the EU and US.

B. The Basic Framework and Underlying Philosophy of the TTBER and the Guidelines

Intellectual property laws confer exclusive rights on holders of patents, copyright, design rights, trademarks and other legally protected rights. The owner of intellectual property is entitled under intellectual property laws to

* Both authors work for DG Competition and were responsible for drafting the new rules for applying Article 81 EC to technology transfer agreements. The views expressed are the authors' and do not necessarily represent those of the Commission. This text will be used as part of a new edition of Faull J. and Nikpay A. (1999): *The EC Law of Competition*, Oxford University Press, Oxford.

[1] *Commission Regulation (EC) No 772/2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements*, OJ L 123 [2004].

[2] OJ C 101 [2004].

prevent unauthorised use of his intellectual property and to exploit it, *inter alia*, by licensing it to third parties. Licensing of technology is a common feature of an open market economy. The fact that intellectual property laws grant exclusive rights to owners of intellectual property does not imply that there is an inherent conflict between intellectual property rights and the Community competition rules. Indeed, as stated in the Guidelines[3] both bodies of law share the same basic objective of promoting consumer welfare and an efficient allocation of resources. Innovation constitutes an essential and dynamic component of an open and competitive market economy. Intellectual property rights promote dynamic competition by encouraging undertakings to invest in developing new or improved products and processes. So does competition by putting pressure on undertakings to innovate. Therefore, both intellectual property rights and competition are necessary to promote innovation and ensure a competitive exploitation thereof.

Technology transfer agreements are subject to the TTBER and the Guidelines. The TTBER creates a safe harbour for certain categories of technology transfer agreements whereas the Guidelines provide guidance on the application of the TTBER as well as on the application of Article 81 outside the scope of the block exemption. This is an important aspect given the need for undertakings to engage in self-assessment of the compatibility of their agreements with the Community competition rules.

The TTBER is composed of three main elements. Firstly, the TTBER creates a safe harbour for technology transfer agreements concluded by two undertakings. The safe harbour is circumscribed by market share thresholds of 20% in the case of agreements between competitors and 30% in the case of agreements between non-competitors. In limiting the scope of the safe harbour by market share thresholds the TTBER follows the approach of the block exemption regulations in the fields of vertical restraints and horizontal cooperation agreements.[4] Secondly, the TTBER contains a list of hardcore restrictions. There are separate lists for agreements between competitors and agreements between non-competitors. Agreements containing hardcore restrictions fall outside the scope of the block exemption in their entirety. Thirdly, the TTBER contains a limited list of excluded restrictions that are not block exempted. Such restrictions are subject to individual assessment. However, their inclusion into the agreement does not exclude the application of the block exemption to the rest of the agreement.

[3] See para. 7.

[4] See *Commission Regulation (EC) No 2790/1999 on the application of Article 81(3) of the Treaty to categories of vertical agreements and concerted practices [1999] OJ L336/21*, *Commission Regulation (EC) No 2658/2000 on the application of Article 81(3) of the Treaty to categories of specialisation agreements* OJ L 304 [2000] and *Commission Regulation (EC) No 2659/2000 on the application of Article 81(3) of the Treaty to research and development agreements* OJ L 304 [2000].

Agreements that fall outside the scope of the safe harbour are subject to individual assessment. As repeatedly stated in the Guidelines[5] there is no presumption that technology transfer agreements falling outside the block exemption are caught by Article 81(1) EC or fail to satisfy the conditions of Article 81(3) EC. In particular, the mere fact that the market shares of the parties exceed the market share thresholds set out in the TTBER is not a sufficient basis for finding that the agreement is caught by Article 81(1) EC. Individual assessment of the likely effects of the agreement is required. It is only when agreements contain hardcore restrictions of competition that it can normally be presumed that they are prohibited by Article 81 EC.

The overall philosophy expressed in the Guidelines is that most licence agreements do not restrict competition and create pro-competitive efficiencies.[6] Licensing leads to dissemination of technology and promotes innovation. By stating that the great majority of licence agreements are compatible with Article 81 EC[7] the Guidelines adopt a positive attitude towards technology transfer agreements. This positive attitude is reflected in a number of places in the TTBER and the Guidelines. For instance, Article 4(2)(b) block-exempts restrictions on active and passive sales into exclusive territories and customer groups reserved for the other party and active sales restrictions between licensees irrespective of whether they have been granted an exclusive territory or customer group. This is quite far-reaching when compared to the treatment of in particular passive sales restrictions in the context of vertical distribution agreements.[8] In the TTBER the Commission has made a deliberate choice to treat more favourably certain restrictions with a view to promoting licensing and dynamic competition even where it might result in a short run loss of static competition.

The Commission expressly recognises[9] that the creation and exploitation of intellectual property rights often entails substantial investment and that it is often a risky endeavour. In view thereof the Guidelines provide[10] that "in order not to reduce dynamic competition and to maintain the incentive to innovate, the innovator must not be unduly restricted in the exploitation of intellectual property rights that turn out to be valuable. For these reasons the innovator should normally be free to seek compensation for successful projects that is sufficient to maintain investment incentives, taking failed projects into account. Technology licensing may also require the licensee to make significant sunk investments in the licensed technology and production assets necessary to exploit it. Article 81 EC cannot be applied without considering such *ex ante* investments made by the parties and the risks relating

[5] See Guidelines paras. 37, 65 and 130.

[6] See id., para. 9.

[7] See id., paras. 9 and 17.

[8] See Article 4(b) of Regulation 2790/1999.

[9] See *Guidelines* para. 8.

[10] *Ibidem*.

thereto. The risk facing the parties and the sunk investment that must be committed may thus lead to the agreement falling outside Article 81(1) or fulfilling the conditions of Article 81(3), as the case may be, for the period of time required to recoup the investment."

Certain restraints may be necessary in order to induce the licensor to license his technology and the licensee to take a licence. For instance, as regards field of use restrictions the Guidelines provide[11] that if the licensor could not prevent licensees from operating in fields where he exploits the technology himself or in fields where the value of the technology is not yet well established, it would be likely to create a disincentive for the licensor to license or would lead him to charge a higher royalty. Similarly, as regards output restrictions the Guidelines provide[12] that in the application of Article 81(3) EC it must be taken into account that such restrictions may be necessary in order to induce the licensor to disseminate his technology as widely as possible and that a licensor may, for instance, be reluctant to license his competitors if he could not limit the licence to a particular production site with a specific capacity.

The fact that the licensee may need to commit significant and risky investments is *inter alia* reflected in the treatment of passive sales restrictions between licensees in agreements between non-competitors. The Guidelines state[13] that "licensees often have to commit substantial investments in production assets and promotional activities in order to start up and develop a new territory. The risks facing the new licensee are therefore likely to be substantial, in particular since promotional expenses and investment in assets required to produce on the basis of a particular technology are often sunk, i.e. they cannot be recovered if the licensee exits the market. In such circumstances, it is often the case that licensees would not enter into the licence agreement without protection for a certain period of time against (active and) passive sales into their territory by other licensees. Restrictions on passive sales into the exclusive territory of a licensee by other licensees therefore often fall outside Article 81(1) EC for a period of up to two years from the date on which the product incorporating the licensed technology was first put on the market in the exclusive territory by the licensee in question." In arriving at this conclusion the Commission applies the test set out in paragraph 12(b) of the Guidelines. Paragraph 12 of the Guidelines contains two counterfactual tests providing a framework for assessing the impact of agreements on inter-technology competition and intra-technology competition respectively. These tests are in substantive terms the same as those contained in paragraph 18 of the Guidelines on the application of Article 81(3) EC. The impact on inter-technology competition is ascertained by asking whether the agreement

[11] See id., para. 182.

[12] See id., para. 175.

[13] See id., para. 101.

restricts competition that would have occurred in the absence of the agreement, whereas the relevant question as regards intra-technology competition is whether the restraints contained in the agreement restricts competition which would have been created by the agreement in the absence of the restraints in question.[14] Such intra-technology restraints are not caught by Article 81(1) EC if on the basis of objective factors it can be concluded that in their absence such an agreement would likely not have been concluded.

C. The Scope of the TTBER and the Guidelines

The TTBER applies to technology transfer agreements entered into between two undertakings.[15] Under Council Regulation 19/65[16] the Commission is only empowered to block exempt "categories of agreements to which only two undertakings are party and which include restrictions imposed in relation to the acquisition or use of industrial property rights". However, the Guidelines acknowledge[17] that licence agreements concluded between more than two undertakings often give rise to the same issues. The Commission therefore undertakes to apply by analogy the principles of the TTBER to such agreements provided that they are of the same nature as those covered by the block exemption.

1. Agreements for the production of contract products

It is a condition for the application of the TTBER that the agreement must concern "the production of contract products".[18] The agreement must identify a contract product to which the licensed technology relates. Contract products are goods and services produced with the licensed technology. This condition is satisfied where the technology is used in a production process or where the technology is incorporated into the product itself. There is no contract product for the purposes of the TTBER where the licence is granted in order to allow the licensee to license on the technology to third parties.

[14] For more detailed explanations see Kjølbye L. (2004): "The New Commission Guidelines on the Application of Article 81(3): An Economic Approach to Article 81", 25 *European Competition Law Review* 566.

[15] See Article 2(1).

[16] *Council Regulation No 19/657EEC on the application of Article 81(3) of the Treaty to certain categories of agreements and concerted practices [1965] OJ P36/533 as amended by Council Regulation (EC) No 1215/1999*, OJ L 148 [1999].

[17] See *Guidelines* para. 40.

[18] See Article 2(1).

Agreements authorising sublicensing are not covered by the TTBER except where the primary object of the agreement is not sublicensing.[19] However, the Commission undertakes to apply by analogy the principles of the TTBER and the Guidelines to agreements that have as their main purpose to allow the licensee to sublicense.[20] Agreements establishing technology pools are also not covered by the TTBER, but are dealt with in a separate section of the Guidelines.[21]

It is not a condition that the transferred technology must be ready for commercial exploitation. The TTBER and the Guidelines also apply where the licensee must carry out development work before obtaining a product or a process that is ready for commercial exploitation.[22] However, the TTBER and the Guidelines do not apply where the technology is licensed for the purpose of enabling the licensee to carry out further research and development in various fields.[23] The framework of the TTBER and the Guidelines is based on the premise that there is a direct link between the licensed technology and an identified contract product. The greater the R&D content of the agreement the more likely it is that the framework of the Guidelines would be unduly restrictive, *inter alia*, taking insufficiently into account the additional risk facing the licensee and the uncertainty as to the commercial success of the arrangement. Certain issues may also be particular to such arrangements. For instance, it is likely that royalty payments have to be linked to the results of future R&D work and thus take the form of reach through royalties, i.e. royalties on the revenues generated by such future developments. The Guidelines should not be interpreted as creating obstacles to such particular arrangements.

2. Technology transfer agreements

The application of the TTBER and the Guidelines do not require that there be an 'active' flow of technology from the licensor to the licensee. For a transfer of technology to occur it is sufficient that the licensor undertakes not to exercise his intellectual property rights against the licensee.[24] The essence of a pure patent licence is the right to operate inside the scope of the exclusive right of the patent. It follows that the TTBER also covers so-called non-assertion agreements and settlement agreements whereby the licensor permits the licensee to produce within the scope of the patent.

[19] Licence agreements concluded between the sub-licensor or a technology pool and third parties are covered by the TTBER.

[20] See Guidelines para. 42.

[21] See *Guidelines* section IV.4.

[22] See id., para. 45.

[23] *Ibidem.*

[24] See id., para. 43.

The TTBER does not cover all intellectual property rights. Due to the limitations imposed by Regulation 19/65 only "industrial property rights" are covered. The Council Regulation mentions as examples patents, utility models, designs, trademarks and know-how and the TTBER covers such property rights except trademarks which do not constitute technology for the purposes of the TTBER. In addition to the industrial property rights specifically mentioned in the Council Regulation the TTBER covers plant breeders rights, topographies of semiconductor products, supplementary protection certificates for medicinal products or other products for which such supplementary protection certificates may be obtained and software copyright. Other types of copyright are not covered. Software copyright is thus considered to constitute industrial property whereas that is not the case with other types of copyright.

The Guidelines provide that as a general rule the Commission will apply the principles set out in the TTBER and the Guidelines when assessing the licensing of copyright for the purpose of reproduction and distribution of the protected work, i.e. the production of copies for resale. Such agreements are considered to be of a similar nature as technology transfer agreements and to raise comparable issues. The TTBER and the Guidelines do not apply to the licensing of rights in performances and other rights related to copyright. In the case of performance rights value is created not by the reproduction and sale of copies of a product but by each individual performance of the protected work. The licensing of such rights raises particular issues that may warrant distinct analysis.[25]

The Guidelines also do not apply to trade mark licensing. It could be argued that it would have been useful to apply the framework of the Guidelines to at least certain types of trade mark licensing, in particular merchandising. The Guidelines cover copyright licensing for the purpose of reproduction and sale of a product. An agreement authorising a licensee to produce for instance T-shirts with a copyright protected picture of, say, a Coca-Cola bottle is thus covered. On the other hand, the Guidelines do not cover an agreement to produce T-shirts with the Coca-Cola trade mark in spite of the fact that the two transactions are equivalent. Given these similarities one would expect that in practice the Commission will treat such transactions in a similar way.

The only exception to the exclusion of trade marks and certain types of copyright is the rule in Article 1(1)(b) of the TTBER according to which such intellectual property rights are covered by the block exemption when they are directly related to the exploitation of the licensed technology and do not constitute the primary object of the agreement. This condition ensures that an agreement covering for instance a trade mark is only block exempted to the

[25] See id., para. 52.

extent that this trade mark serves to enable the licensee to better exploit the licensed technology.[26]

Similarly, agreements containing provisions relating to the purchase and sale of products are only covered by the TTBER to the extent that those provisions do not constitute the primary object of the agreement and are directly related to the application of the licensed technology. According to the Guidelines this is likely to be the case where the tied products take the form of equipment or process input which is specifically tailored to efficiently exploit the licensed technology.[27] If, on the other hand, the product is simply another input into the final product, it must be carefully examined whether the licensed technology constitutes the primary object of the agreement. For instance, in cases where the licensee is already manufacturing a final product on the basis of another technology, the licence must lead to a significant improvement of the licensee's production process, exceeding the value of the product purchased from the licensor. The requirement that the tied products must be related to the licensing of technology implies that the TTBER does not cover the purchase of products that have no relation with the products incorporating the licensed technology.

3. The interface between the TTBER and other block exemptions

The main interface to be established is that between the TTBER and Regulation 2790/1999 on vertical restraints.[28] These two regulations are in an upstream/downstream relationship given that the licensee is a supplier of goods and services on the market. The agreement between licensor and licensee is subject to the TTBER whereas agreements concluded between a licensee and its buyers are subject to Regulation 2790/1999 and the Guidelines on Vertical Restraints.[29] Technology transfer agreements may contain obligations as to the way in which the licensee must sell the contract products. Such obligations are covered by the TTBER. However, the distribution agreements concluded for the purposes of implementing such obligations must, in order to be block exempted, comply with Regulation 2790/1999.[30]

[26] In Commission Decision in *Moosehead/Whitbread* (OJ L 100 [1990]) this condition was found not to be satisfied. The value of the licensed technology to the licensee was limited because he already employed an identical or very similar technology. The trade mark was therefore considered to constitute the main object of the agreement.

[27] See Guidelines para. 49.

[28] *Commission Regulation (EC) No 2790/1999 on the application of Article 81(3) of the Treaty to categories of vertical agreements and concerted practices* OJ L 336 [1999].

[29] OJ C 291 [2000].

[30] See recital 19 of the TTBER.

For the purposes of Regulation 2790/1999 each licensee is considered a separate supplier. Distributors appointed by one licensee must in principle be free to sell both actively and passively into territories covered by the distribution systems of other licensees. However, the Guidelines[31] explain that when the products incorporating the licensed technology carry a common brand identity, there may be the same efficiency reasons for applying the same types of restraints between licensees' distribution systems as within a single vertical distribution system. In such cases the Commission is unlikely to challenge restraints where by analogy the requirements of Regulation 2790/1999 are fulfilled. For a common brand identity to exist the Guidelines require that the products are sold and marketed under a common brand, which is predominant in terms of conveying quality and other relevant information to the consumer. It is not sufficient that in addition to the licensees' brands the product carries the licensor's brand, which identifies him as the source of the licensed technology. It is submitted that for instance the 'Intel inside' logo, which is affixed to computers containing an Intel processor, does not convey a common brand identity for the purposes of the Guidelines.

Regulation 2658/2000 on certain specialisation agreements[32] covers *inter alia* agreements whereby undertakings establish a production joint venture and license technology to the joint venture to produce goods or services. Such agreements are not covered by the TTBER. However, where the joint venture engages in licensing of the technology to third parties, the activity is not linked to production by the joint venture and therefore not covered by Regulation 2658/2000. Such licensing arrangements, which bring together the technologies of the parties, constitute technology pools which are covered by the Guidelines.

Regulation 2659/2000[33] covers licensing between the parties and by the parties to a joint entity in the context of a research and development agreement. In the context of such agreements the parties can also determine the conditions for licensing the fruits of the research and development agreement to third parties. However, since third party licensees are not party to the research and development agreement, the individual licence agreement concluded with third parties is not covered by Regulation 2659/2000. Such licence agreements are subject to the TTBER.

[31] See Guidelines para. 64.

[32] *Commission Regulation (EC) No 2658/2000 on the application of Article 81(3) of the Treaty to categories of specialisation agreements,* OJ L 304 [2000].

[33] *Commission Regulation (EC) No 2659/2000 on the application of Article 81(3) of the Treaty to research and development agreements,* OJ L 304 [2000].

D. Competitors *v*. Non-competitors

An important element of the economic approach of the TTBER and Guidelines is the different treatment of licensing between competitors versus licensing between non-competitors. Agreements between competitors pose in general a greater risk to competition than agreements between non-competitors[34]. This general conclusion has led to substantial differences in terms of the market share thresholds, the hardcore list and also the assessment outside the safe harbour of the block exemption.

The fact that agreements between competitors may pose greater risks to competition does not imply that licensing between non-competitors is without competition risks. Such licensing may have a negative effect on both inter-technology and intra-technology competition. As to the latter, the Guidelines point out that intra-technology competition is an important complement to inter-technology competition. Competition between licensees using the same technology is worth protecting because such competition may lead to lower prices, better quality and improved product differentiation of the products incorporating the licensed technology[35].

To test the competitive relationship between the parties the TTBER and Guidelines start with the question "whether the parties would have been actual or potential competitors in the absence of the agreement. If without the agreement the parties would not have been actual or potential competitors in any relevant market affected by the agreement they are deemed to be non-competitors".[36] In other words, it is the situation but for the agreement that is relevant to judge whether the parties are competitors. Becoming a competitor as a result of the licence is not relevant for this assessment.

The TTBER contains a number of modifications to this general distinction between competitors and non-competitors. These modifications limit the situations in which parties are treated as competitors. The first modification concerns the markets on which the parties may compete. The TTBER in Article 1(1)(j) limits the definition of competing undertakings to undertakings, which compete on the relevant technology and/or the relevant product market. So-called innovation markets are not taken into account under the TTBER. In the Guidelines[37] it is explained that, also outside the safe harbour of the TTBER, the Commission will normally confine itself to examining the impact on product and/or technology markets.

[34] See Guidelines para. 26. See also for instance paras. 100 and 101 of the *Guidelines on Vertical Restraints*.

[35] See Guidelines para. 26

[36] See id., para. 27

[37] See id., para 25.

The second modification concerns potential competition on the technology market. For the application of the TTBER potential competition on the technology market is not taken into account. If the licensee owns a competing technology that he would be likely to license out in case of a small but permanent increase in royalties, such potential competition on the technology market is only taken into account outside the safe harbour. For the application of the market share threshold and the hardcore list licensee and licensor will be considered non-competitors, provided of course that they are in addition neither actual nor potential competitors on the product market.[38] The Commission apparently considered the assessment of potential competition on the technology market too difficult or uncertain for a proper application of the TTBER. The TTBER is already quite complex due to the need to cover agreements between competitors and non-competitors operating on both technology and product markets.

Undertakings are considered actual competitors on the technology market if, but for the agreement, both licensor and licensee license out competing technologies. Licensor and licensee are also considered actual competitors on the technology market if the licensee was already licensing out a competing technology and the licensor enters the technology market by granting a licence for a competing technology to the licensee.[39] The second situation deviates from the general principle according to which the competitive relationship is assessed “in the absence of the licence agreement”. In this way, while in general not taking potential competition on the technology market into account for the application of the TTBER, the Commission does take into account the situation of (potential) competition on the technology market where the licensee is already licensing out its own technology and the licensor enters the technology market by licensing to the licensee. In this particular situation the assessment is not too difficult or uncertain for a proper application of the TTBER.

As far as the product market, i.e. the relevant market for goods or services, is concerned, the application of the TTBER requires assessment of whether the parties would have been actual or potential competitors absent agreement, see Article 1(1)(j)(ii). The parties are actual competitors when they both sell on the same relevant product market. A company is considered a potential competitor on the product market if in the absence of agreement it is likely that it would have undertaken the necessary additional investment to enter the relevant market in response to a small but permanent increase in product prices. In order to constitute a realistic competitive constraint and be assessed as potential competition, such entry should be “timely”, i.e. has to be likely to occur within a relatively short period. According to the Guidelines a period of one to two years is normally considered appropriate. However, in

[38] See id., paras. 30 and 66.

[39] See Article 1(1)(j)(i) of the *TTBER* and para. 28 of the Guidelines.

individual cases longer periods can be taken into account if, for instance, capacity adjustments in the industry in general take longer also for incumbent companies.[40]

The third modification to the general distinction between competitors and non-competitors concerns infringement of the licensor's or licensee's intellectual property rights. Undertakings are not considered actual or potential competitors if, in the absence of the licence agreement, their activity on the relevant product and/or technology market would infringe the intellectual property rights of the other party. Both in case of a one-way blocking position—i.e. where the intellectual property rights of only one of the parties would be infringed—and in case of a two-way blocking position—where the intellectual property rights of both parties would be infringed—the parties are considered to be non-competitors.[41] In assessing whether a blocking position exists the Guidelines provide that the Commission will rely on objective factors such as court decisions and opinions of independent experts. Expert evidence from the parties may also be taken into account. The parties have an incentive to claim that a blocking position exists so as to avoid being identified as competitors. The Commission is therefore likely to treat information coming from the parties with some scepticism. The Commission will want to exclude in particular sham licensing of competing technologies between competitors on the product market.[42]

The fourth modification concerns drastic innovations and their effect on the competitive relationship between licensor and licensee. A drastic innovation by the licensor may have as a result that while the licensor and licensee were competitors on the product market before the innovation, they have become non-competitors since. For this to happen, the new technology should represent such a drastic innovation that the licensee's technology has become obsolete or uncompetitive. The licensor's innovation has created a new market or has excluded the licensee's technology from the market. In case the drastic nature of the innovation only becomes apparent sometime after the licence agreement has been concluded, it is only from that time onward that the parties can be considered non-competitors. Article 81 must be applied in the light of the actual context in which the agreement is operated and the assessment is therefore sensitive to material changes in the facts. The classification of the relationship between the parties may therefore change over time into a relationship between non-competitors.[43]

The fifth and last modification is not concerned with competitors becoming non-competitors as described in the previous paragraph, but with non-competitors becoming competitors. This is the situation where licensor and

[40] See Guidelines paras. 28 and 29.

[41] See TTBER, Article 1(1)(j).

[42] See Guidelines para 32.

[43] See id., para. 33.

licensee are non-competitors at the time of concluding the licence agreement but become competitors afterwards for reasons other than the licence itself, for instance because the licensee develops its own competing technology which it starts to exploit or because the licensor, who was not active on the product market before concluding the licence agreement, enters the product market at a later point in time. The Commission could have chosen to apply here too the general policy explained in the previous paragraph, i.e. that Article 81 has to be applied in the actual context in which the agreement occurs. However the Commission decided to deviate from this policy in the case of non-competitors becoming competitors. For such agreement the hardcore list for non-competitors remains the applicable hardcore list, unless the agreement is subsequently amended in any material respect, see Article 4(3) of the TTBER. In other words, whereas the lower market share threshold of 20% starts to apply from the moment that the parties to the agreement have become competitors, the hardcore list of competitors only becomes applicable after the agreement, in any of its parts, has been materially changed. More generally, the Commission will focus its assessment on the impact of the licence agreement on the newly developed source of competition.[44]

E. The Hardcore Restrictions

A central feature of the TTBER is its so-called black-list approach: restrictions that are not explicitly excluded are covered by the block exemption. This contrasts with the old Regulation 240/96, which contained also a white list, specifying what are the restrictions that can or even should be included in a licensing agreement for it to be block exempted. The black-list approach creates more contractual freedom for the parties to design a licence to their commercial needs. Below the market share thresholds the parties only need to take account of what is excluded from coverage, i.e. the hardcore restrictions listed in Article 4 and the excluded restrictions in Article 5.

Of these two articles Article 4 is clearly the more important one. Indeed, the hardcore list is the most important part of the TTBER. It contains restrictions which the Commission considers normally to be severely anti-competitive. These restrictions of competition by object have such a high potential for negative effects on competition that it is unnecessary for the purposes of applying Article 81(1) to demonstrate any effects on the market.[45] Moreover, the conditions of Article 81(3) are considered unlikely to

[44] See id., para. 31.

[45] See e.g. Case C-49/92 P *Anic Partecipazioni* [1999] ECR I-4125, para. 123.

be fulfilled in the case of hardcore restrictions. When a licence agreement contains such a restriction, it follows from Article 4(1) and 4(2) of the TTBER that the agreement as a whole falls outside the scope of the block exemption. For the purposes of the TTBER hardcore restrictions cannot be severed from the rest of the agreement. In the context of an individual assessment the Commission considers that hardcore restrictions will only in exceptional circumstances fulfil the four conditions of Article 81(3) EC.[46]

As remarked before, the hardcore list in Article 4 makes a distinction between licensing between competitors (Article 4(1)) and non-competitors (Article 4(2)). The hardcore list of Article 4(1) is inspired by the hardcore list in other 'horizontal' block exemption regulations[47]. The hardcore list in Article 4(2) is inspired by the hardcore list in the vertical distribution block exemption Regulation[48]. However, while there are similarities with the other block exemption regulations, Article 4(1) and (2) also have licensing specific features which differentiate this hardcore list from these other regulations.

The text of Article 4 reads as follows:

(1) Where the undertakings party to the agreement are competing undertakings, the exemption provided for in Article 2 shall not apply to agreements which, directly or indirectly, in isolation or in combination with other factors under the control of the parties, have as their object:

a) the restriction of a party's ability to determine its prices when selling products to third parties;

b) the limitation of output, except limitations on the output of contract products imposed on the licensee in a non-reciprocal agreement or imposed on only one of the licensees in a reciprocal agreement;

c) the allocation of markets or customers except:

(i) the obligation on the licensee(s) to produce with the licensed technology only within one or more technical fields of use or one or more product markets,

(ii) the obligation on the licensor and/or the licensee, in a non-reciprocal agreement, not to produce with the licensed technology within one or more technical fields of use or one or more product markets or one or more exclusive territories reserved for the other party,

(iii) the obligation on the licensor not to license the technology to another licensee in a particular territory,

(iv) the restriction, in a non-reciprocal agreement, of active and/or passive sales by the licensee and/or the licensor into the exclusive

[46] See Guidelines paras. 14, 18 and 75.

[47] See for instance *Regulation 2658/2000 on specialisation agreements* OJ L 304 [2000] and *Regulation 2659/2000 on research and development agreements* OJ L 304 [2000].

[48] *Commission Regulation 2790/1999 on vertical agreements*, OJ L 336 [1999].

territory or to the exclusive customer group reserved for the other party,

(v) the restriction, in a non-reciprocal agreement, of active sales by the licensee into the exclusive territory or to the exclusive customer group allocated by the licensor to another licensee provided the latter was not a competing undertaking of the licensor at the time of the conclusion of its own licence,

(vi) the obligation on the licensee to produce the contract products only for its own use provided that the licensee is not restricted in selling the contract products actively and passively as spare parts for its own products,

(vii) the obligation on the licensee, in a non-reciprocal agreement, to produce the contract products only for a particular customer, where the licence was granted in order to create an alternative source of supply for that customer;

d) the restriction of the licensee's ability to exploit its own technology or the restriction of the ability of any of the parties to the agreement to carry out research and development, unless such latter restriction is indispensable to prevent the disclosure of the licensed know-how to third parties.

(2) Where the undertakings party to the agreement are not competing undertakings, the exemption provided for in Article 2 shall not apply to agreements which, directly or indirectly, in isolation or in combination with other factors under the control of the parties, have as their object:

a) the restriction of a party's ability to determine its prices when selling products to third parties, without prejudice to the possibility of imposing a maximum sale price or recommending a sale price, provided that it does not amount to a fixed or minimum sale price as a result of pressure from, or incentives offered by, any of the parties;

b) the restriction of the territory into which, or of the customers to whom, the licensee may passively sell the contract products, except:

(i) the restriction of passive sales into an exclusive territory or to an exclusive customer group reserved for the licensor,

(ii) the restriction of passive sales into an exclusive territory or to an exclusive customer group allocated by the licensor to another licensee during the first two years that this other licensee is selling the contract products in that territory or to that customer group,

(iii) the obligation to produce the contract products only for its own use provided that the licensee is not restricted in selling the contract products actively and passively as spare parts for its own products,

(iv) the obligation to produce the contract products only for a particular customer, where the licence was granted in order to create an alternative source of supply for that customer,

(v) the restriction of sales to end-users by a licensee operating at the wholesale level of trade,

(vi) the restriction of sales to unauthorised distributors by the members of a selective distribution system;

c) the restriction of active or passive sales to end-users by a licensee which is a member of a selective distribution system and which operates at the retail level, without prejudice to the possibility of prohibiting a member of the system from operating out of an unauthorised place of establishment.

(3) Where the undertakings party to the agreement are not competing undertakings at the time of the conclusion of the agreement but become competing undertakings afterwards, paragraph 2 and not paragraph 1 shall apply for the full life of the agreement unless the agreement is subsequently amended in any material respect.

For a number of hardcore restrictions in licensing agreements between competitors the TTBER makes a distinction between reciprocal and non-reciprocal agreements. A reciprocal agreement is a cross-licensing agreement where the licensed technologies are competing technologies or can be used for the production of competing products. A non-reciprocal agreement is an agreement where only one of the parties is licensing its technology to the other party or where in case of cross-licensing the licensed technologies are not competing technologies and cannot be used for the production of competing products.[49] The hardcore list is stricter for reciprocal than for non-reciprocal agreements. Reciprocal agreements are considered to have more easily an anti-competitive object (and effect). There is more alignment of incentives and restraints in case of reciprocity whereas non-reciprocity creates an asymmetry in terms of technology flows and restraints. In addition, it is also considered that in a reciprocal situation there is usually less need for restrictions: both parties have a technology the other wants to license-in and there is thus less risk that the licence agreement would not be concluded without the possibility for the parties to restrain each other. A non-reciprocal agreement may more often not be concluded unless the licensor and licensee are allowed to agree certain restrictions.[50]

1. Price-fixing

The first hardcore restriction concerns price fixing. Both in case of licensing between competitors and non-competitors it is a hardcore restriction to fix

[49] See Guidelines para. 78.

[50] In the case of agreements that restrict competition that would have existed but for the agreement such a finding does not imply that the agreement falls outside Article 81(1) EC. When the agreement (appreciably) affects inter-technology competition it is caught by Article 81(1) EC. Any benefits resulting from the agreement fall to be considered in the context of Article 81(3) EC.

the price of products sold to third parties, see Article 4(1)(a) and 4(2)(a). Licensor and licensee must be free to set the price of their own products, whether produced with the licensed technology or another technology. The only exception is the imposition of a maximum sale price or recommending a sale price in a licence agreement between non-competitors. Such a maximum or recommended price in an agreement between non-competitors is not a hardcore restriction, provided that it does not amount to a fixed or minimum sale price as a result of pressure from, or incentives offered by, any of the parties.

The Guidelines provide further clarification on what is considered hardcore price fixing.[51] It is explained that indirect price fixing can be achieved in several ways, such as fixing the margin, fixing the maximum level of discounts, linking the sale price to the sales prices of competitors or providing that the royalty rate will increase if product prices are reduced. Again in the context of licensing between competitors, it is made clear that running royalties to be paid on the basis of all product sales irrespective of whether the licensed technology is being used, is a hardcore restriction under Article 4(1)(a) and also under Article 4(1)(d).[52] Such requirement raises the cost for the licensee of using his own technology and this is considered to seriously restrict competition, whether it concerns a reciprocal or non-reciprocal agreement between competitors. It is however indicated that exceptionally the conditions of Article 81(3) may be fulfilled in an individual case if in the absence of the restraint it would be impossible or unduly difficult to calculate and monitor the royalty payable by the licensee, for instance because the licensor's technology leaves no visible trace on the final product and the licensee at the same time uses his own technology to produce the same final product. The Guidelines further explain that in the context of cross licensing between competitors running royalties on the licensed products can be used to co-ordinate prices on a product market through their impact on the marginal costs of the products of both parties. However, the Guidelines provide that the Commission will only treat cross-licensing with reciprocal running royalties as price fixing within the meaning of Article 4(1)(a) where the agreement is devoid of any pro-competitive purpose and therefore does not constitute a bona fide licensing arrangement ('sham licensing').

2. Output limitations

The second hardcore restriction concerns output limitations. Limitation of output is not a hardcore restriction where the licensing is between

[51] See Guidelines paras. 79 to 81 and 97.

[52] See below.

non-competitors. Limitation of output only features in the hardcore list of licensing between competitors, in Article 4(1)(b). Article 4(1)(b) provides that a limitation of output is considered a hardcore restriction in general, except where the limitation is imposed on the licensee in a non-reciprocal agreement or imposed on only one of the licensees in a reciprocal agreement. It follows that an output limitation is hardcore if it concerns a reciprocal restriction on both parties or if it concerns a restriction on any of the parties' output produced with its own technology. An output limitation is not hardcore if it is limited to a non-reciprocal restriction on the licensee in case of non-reciprocal licensing, or on only one of the licensees in reciprocal licensing. It is considered that when the restraint is asymmetrical there is a lower risk of reducing output on the market. In case of such a one-way restriction it is also considered more likely that the agreement leads to a real integration of complementary technologies or an efficiency enhancing integration of the licensor's superior technology and that the restriction may be necessary to induce the licensor to license-out.[53] It would therefore not be appropriate to treat it as a hardcore restriction.

3. Territorial and customer sales restrictions

The third hardcore restriction concerns territorial and customer sales restrictions. This provision consists of a general hardcore restriction with an important number of exceptions in both Article 4(1) and 4(2) and as Article 4(1) and 4(2) are materially different, licensing between competitors and non-competitors are dealt with separately below

a. Territorial and customer sales restrictions between competitors

In case of licensing between competitors it is hardcore to allocate markets or customers. However, given the various exceptions, the hardcore restriction is effectively narrowed down to (a) exclusivity and territorial and customer sales restrictions between the parties in a reciprocal agreement and (b) most active and passive sales restrictions between licensees in case the licensor is licensing to more than one licensee.

The first part concerning exclusivity and sales restrictions signifies that competitors in a reciprocal agreement should not (and need not) restrict each other as to where to produce or where or to whom to sell. This applies irrespective of whether the licensee remains free to use his own technology. In the words of the Guidelines, once the licensee has tooled up to use the licensor's technology to produce a given product, both his possibilities and

[53] See Guidelines paras. 82 and 83.

incentive to produce under his own technology may have been reduced significantly.[54]

At the same time it is important to note that exclusivity agreed in a non-reciprocal agreement is covered by the block exemption.[55] To be more precise, in a non-reciprocal agreement the licensor and licensee can agree not to produce in the exclusive territory reserved for the other party. This means that both licensor and licensee may have an exclusive territory where the other is not allowed to produce. It is also possible for only one of them to have such an exclusive territory. The restriction need not be symmetrical. This restriction also entails that the licensor abstains from entering or remaining on the market if the licensee's exclusive territory is world-wide. However, it is a condition for the application of the block exemption that the protected territory of the licensee and/or licensor is exclusively reserved for the other party, i.e. that the latter is the only one authorised to produce with the licensed technology in that territory. Active and passive sales restrictions between licensor and licensee to protect the exclusive territory or territories or customer group(s) reserved for one or both of them, are also block exempted if contained in a non-reciprocal agreement.[56] The block exemption thus covers absolute territorial production between licensor and licensee in such a situation.

It is further made clear that field of use restrictions are covered by the block exemption, whether in a reciprocal or non-reciprocal agreement.[57] The licence can thus be limited to one or more product markets or technical fields of use. It is important to note that the licensee can only be limited in the use of the licensed-in technology and not in the use of its own technology, as this would constitute a hardcore restriction under Article 4(1)(d).[58] This implies that in a reciprocal agreement, where each party is both licensor and licensee at the same time, none of the parties can be restricted in the use of its own technology. However, in case of a non-reciprocal agreement Article 4(1)(c)(ii) explicitly block exempts field of use restrictions limiting the licensor's use of its own technology. The TTBER thus block exempts in general field of use restrictions imposed on the licensee concerning the licensed technology and block exempts in addition field of use restrictions imposed on the licensor in case of non-reciprocal licensing. The risk of market sharing is considered less in case of field of use restrictions than in case of territorial or customer restrictions. The Commission considers that a licensee will be less inclined to withdraw from a product market as long as he is still able to use his own, possibly inferior, technology. Withdrawal from a product market will often be costly as it may for instance involve plant closures, and re-entry at a later

[54] See id., para. 85.

[55] See Article 4(1)(c)(ii)

[56] See Article 4(1)(c)(iv)

[57] See Article 4(1)(c)(i)

[58] See below.

point in time may be difficult. Field of use restrictions may also be necessary to promote pro-competitive licensing, in particular to ensure design freedom to the licensee within the scope of the licence and to avoid having to license for fields of use for which the value is not yet well established.[59]

In Article 4(1)(c)(iii) it is clarified that sole licensing is not a hardcore restriction. In other words a licensor can appoint a licensee as his only licensee in a territory and agree not to license third parties in the same territory. As the licensor is not restricted in the use of its own technology under sole licensing, it is anyhow difficult to see how such licensing could lead to allocation of markets or customers. Article 4(1)(c)(iii) seems therefore somewhat superfluous, making an exception to the hardcore restriction for clarification purposes only. Article 4(1)(c)(iii) does not make a distinction based on whether or not the agreement is reciprocal. As explained in the Guidelines the block exemption of sole licensing "applies irrespective of whether the agreement is reciprocal or not given that the agreement does not affect the ability of the parties to fully exploit their own technology in the respective territories".[60] This could be said to conflict with Article 4(1)(d) where it concerns reciprocal agreements. Under Article 4(1)(d) a licensee should be free to exploit its own technology, including, according to the Guidelines,[61] licensing his own technology to third parties. In a reciprocal agreement both parties are by definition both licensor and licensee and sole licensing would in such a case restrict one or both licensees to license to third parties and could thus be said to contravene Article 4(1)(d). In view of the explicit exception from the hardcore list made for both reciprocal and non-reciprocal sole licensing and the Commission's statement that sole licensing in general does not affect the ability of the parties to exploit their own technology, it can be expected that the exception defined in Article 4(1)(c)(iii) would prevail over Article 4(1)(d) if a possible case of conflict were to be argued.

The above-mentioned exceptions to the hardcore restriction of Article 4(1)(c) all relate to exclusivity and sales restrictions between the parties. In Article 4(1)(c)(v) there is an exception to the general hardcore on active and passive sales restrictions between licensees that all use the technology of the same licensor. Active sales restrictions imposed on the licensee to protect the exclusive territory or customer group allocated by the licensor to another licensee are block exempted on condition that the sales restrictions are part of a non-reciprocal agreement and the protected licensee was not a competitor of the licensor at the time it concluded its own licence agreement. With this somewhat complex construction it is achieved that, in general, in case of licensing between competitors, sales restrictions between licensees are hardcore, but in case the licensor is licensing to competitors and non-competitors

[59] See Guidelines paras. 90 and 91.

[60] See id., para. 88.

[61] See id., para. 95.

at the same time, the latter can be protected against active selling by other licensees, as would be possible if the licensor was only licensing to non-competitors. This allows the licensor to address the asymmetry that arises when some licensees are already operating on the market whereas others are not.

Lastly there are two specific exceptions to the hardcore restriction of market sharing, one for captive use restrictions (Article 4(1)(c)(vi)) and another to create an alternative source of supply for a particular customer (Article 4(1)(c)(vii)). The captive use exception allows the licensor to prohibit the licensee to sell the products, usually a component produced with the licensed technology, except where this would restrict the supply of these products as spare parts for the licensee's own product. The possibility to create an alternative source of supply for a particular customer enables the licensor to conclude a licence agreement under which the licensee is only allowed to produce the contract product for and sell the contract product to a specific customer. These exceptional situations are not considered to lead easily to market sharing.

b. Territorial and customer sales restrictions between non-competitors

The hardcore territorial and customer sales restrictions in licensing agreements between non-competitors are dealt with in Article 4(2)(b) and 4(2)(c). The hardcore restrictions found here are similar to but more lenient than the corresponding hardcore restrictions in Commission Regulation 2790/1999 for distribution agreements.

In Article 4(2)(b) it is declared hardcore to restrict the licensee's passive sales of the contract products. The Guidelines[62] explain that passive sales restrictions may result from direct obligations on the licensee, such as the obligation not to sell to certain customers or refer orders from these customers to other licensees. Passive sales are also restricted if provision, delivery or installation of the product at the customer's premises is hindered. Passive sales restrictions may also result from indirect measures aimed at limiting such sales. While an output limit imposed on the licensee will not as such be considered an indirect means to restrict passive sales, this will be the case if the output limit is, for instance, combined with an obligation to sell a minimum amount in the licensee's 'own' territory. Another indirect way to obtain passive sales restrictions is differentiated royalties depending on the destination of the products.

The fact that only restrictions of the licensee's passive sales are declared hardcore implies that all sales restrictions on the licensor are block exempted. It also implies that all active sales restrictions on the licensee are block

[62] See id., para. 98.

exempted, except for what is said on this below in the context of selective distribution and Article 4(2)(c)[63]. The block exemption of passive sales restrictions imposed on the licensor and active sales restrictions imposed on the licensee is considered appropriate to promote the licensee's investment in view of potential free riding problems and hold-up problems.[64]

In addition to the implied limitations to the hardcore restriction in Article 4(2)(b), there are also a number of exceptions provided in this Article. Firstly, in Article 4(2)(b)(i), it is made clear that passive sales restrictions on the licensee to protect the exclusive territory or customer group of the licensor are block exempted. This allows licensor and licensee to have absolute territorial protection between them. The Guidelines indicate that a licensor can in this way also reserve a territory for future exploitation.[65] Secondly, Article 4(2)(b)(ii) block exempts restrictions of the licensee's passive sales into another licensee's exclusive territory or to the latter's exclusive customer group during the first two years that this other licensee is selling the contract products. This thereby allows protection of start-up costs and other, often sunk, investments made by the new licensee.[66] Thirdly, Articles 4(2)(b)(iii) and 4(2)(b)(iv) block exempt passive sales restrictions that are necessary to impose a captive use restriction or to create an alternative source of supply for a particular customer. Fourthly, Article 4(2)(b)(v) brings under the block exemption the obligation imposed on the licensee not to sell to end users and thus to limit its sales activities to the wholesale level. Finally, Article 4(2)(b)(vi) allows the licensor to set up a selective distribution system by prohibiting the member-licensee to sell to unauthorised distributors. In that case, however, a licensee active at the retail level of trade must, according to Article 4(2)(c), be permitted to sell both actively and passively to end-users. In such a case of selective distribution the licensee-retailer can only be restricted in its place of establishment.

4. Restrictions on the use of own technology or to do R&D

The last hardcore restriction concerns (a) restriction of the licensee to exploit its own technology and (b) restriction of any of the parties to carry out research and development, unless this second restriction is indispensable to prevent disclosure of licensed know-how, see Article 4(1)(d). This 'hardcore' designation only applies to licensing between competitors. Where the licence is concluded between non-competitors the same restriction is excluded from

[63] For the distinction between active and passive sales, reference is made to point 50 of the Guidelines on Vertical Restraints.

[64] See Guidelines para. 99.

[65] See id., para. 100.

[66] See id., para. 101.

the block exemption under Article 5.[67] Paragraph 94 of the Guidelines makes clear that the mere fact that the parties agree to share future improvements of their licensed technologies will not be assessed as a restriction of the parties to carry out independent research and development. It is also made clear that Article 4(1)(d) does not apply when the restriction is indispensable to prevent the foreclosure of the licensed know-how to third parties. In order not to be caught by Article 4(1)(d) the restrictions imposed to prevent disclosure of licensed know-how must be necessary and proportionate to ensure such protection and must, where possible, not impose a total ban on the licensee to do R&D with third parties.

This last hardcore restriction reflects the aim of the TTBER to promote innovation and not to let the competitive significance of technologies and innovation be reduced. The licensing should not lead to a reduced effectiveness of existing technologies or a reduced incentive to improve or replace these technologies. The licensee should be free to produce with his own technology and sell the resulting products without restriction, including not having to pay royalties on these products. The licensee should also be free to license out his own technology. Both parties should be free to carry out R&D to improve their position.

F. Excluded Restrictions

Article 5 lists four types of excluded restrictions. These restrictions are not block exempted but, unlike in the case of hardcore restrictions, the inclusion in an agreement of any of these excluded restrictions does not prevent the application of the block exemption to the rest of the agreement. It is only the individual restriction that is not block exempted and that requires individual assessment. There is, also unlike in the case of hardcore restrictions, no presumption of illegality of these restrictions when individually assessed.

Article 5(1) contains the following three excluded restrictions:

(a) any direct or indirect obligation on the licensee to grant an exclusive licence to the licensor or to a third party designated by the licensor in respect of its own severable improvements to or its own new applications of the licensed technology;

(b) any direct or indirect obligation on the licensee to assign, in whole or in part, to the licensor or to a third party designated by the licensor, rights to its own severable improvements to or its own new applications of the licensed technology.

[67] See below.

(c) any direct or indirect obligation on the licensee not to challenge the validity of intellectual property rights which the licensor holds in the common market, without prejudice to the possibility to provide for termination of the technology transfer agreement in the event that the licensee challenges the validity of one or more of the licensed intellectual property rights.

Article 5(1)(a) and 5(1)(b) concern exclusive grant backs and assignments to the licensor of the licensee's own severable improvements of the licensed technology or the licensee's own severable new applications of the licensed technology. Article 5(1)(b) does not repeat the word 'severable' in the context of new applications. However, it is clear from the purpose of the provision and the context in which it occurs that new applications must also be severable. A technology is severable if it can be exploited without infringing the licensed technology. It follows that an improvement or new application which is not severable can only be used with the permission of the licensor.

An obligation to grant the licensor an exclusive licence to severable improvements of the licensed technology or to assign such improvements to the licensor is considered likely to reduce the licensee's incentive to innovate since it hinders the licensee in exploiting his improvements, including by way of licensing to third parties. The exclusion of exclusive grant backs and assignments of severable improvements does not depend on whether or not the licensor pays a price for acquiring the improvement or for obtaining an exclusive licence. However, if a price is paid this will be a relevant factor in the context of an individual assessment under Article 81 EC. Depending on the level of the price it may be less likely that the obligation creates a disincentive for the licensee to innovate.

The block exemption covers non-exclusive grant back obligations in respect of severable improvements. This is so even where the grant back obligation is non-reciprocal, i.e. only imposed on the licensee, and where under the agreement the licensor is entitled to feed on the severable improvements to other licensees. It is mentioned in the Guidelines that a feed-on clause may promote the dissemination of technology because each licensee knows at the time of contracting that he will be on an equal footing with other licensees in terms of the technology on the basis of which he is producing. Also, an obligation not to license severable improvements to third parties, i.e. what could be termed a sole grant back obligation where only the licensee and licensor can use the former's improvements, is covered by the block exemption as it does not concern an exclusive grant back obligation. Finally, exclusive grant backs and obligations to assign non-severable improvements are considered not restrictive of competition within the meaning of Article 81(1) EC since non-severable improvements can anyhow not be exploited by the licensee without the licensor's permission.[68]

[68] See Guidelines paras. 109 and 110.

he excluded restriction set out in Article 5(1)(c) concerns non-challenge clauses. The Guidelines mention, as a reason for excluding non-challenge clauses from the scope of the block exemption, that licensees are normally in the best position to determine whether or not an intellectual property right is invalid and that in the interest of undistorted competition and in conformity with the principles underlying the protection of intellectual property, invalid intellectual property rights should be eliminated. Invalid intellectual property stifles innovation rather than promoting it. However, the Guidelines also indicate that the Commission takes a favourable view of non-challenge clauses relating to know-how where once disclosed it is likely to be impossible or very difficult to recover the licensed know-how. In such cases, an obligation on the licensee not to challenge the licensed know-how promotes dissemination of new technology, in particular by allowing weaker licensors to license stronger licensees without fear of a challenge once the know-how has been absorbed by the licensee. In addition, the block exemption covers the possibility for the licensor to terminate the licence agreement in the event of a challenge of the licensed technology. Accordingly, the licensor is not forced to continue dealing with a licensee that challenges the very subject matter of the licence agreement, implying that upon termination any further use by the licensee of the challenged technology is at the challenger's own risk. The provision thereby ensures that the licensee is in the same position as third parties.[69]

Article 5(2) excludes from the scope of the block exemption, in the case of agreements between non-competitors, any direct or indirect obligation limiting the licensee's ability to exploit his own technology or limiting the ability of the parties to the agreement to carry out research and development, unless such latter restriction is indispensable to prevent the disclosure of licensed know-how to third parties. The content of this condition is the same as that of Article 4(1)(d) of the hardcore list concerning agreements between competitors. However, in the case of agreements between non-competitors the Commission considers that it cannot be presumed that such restrictions generally have negative effects on competition or that the conditions of Article 81(3) EC are generally not satisfied. Individual assessment is required. For such individual assessment it is considered important whether or not the licensee owns a competing technology. The Guidelines stress that in case the licensee already owns a competing technology it is important to ensure that the licensee is not restricted in his ability to exploit his own technology and further develop it. This technology constitutes a competitive constraint in the market, which should be preserved. In such a situation restrictions on the licensee's use of his own technology or on research and development are normally considered to be restrictive of competition and not to satisfy the conditions of Article 81(3) EC. In cases where the licensee does not own a

[69] See id., paras. 112 and 113.

competing technology or is not already developing such a technology, a restriction on the ability of the parties to carry out independent research and development may be restrictive of competition where only a few technologies are available. In that case the licensee may be an important (potential) source of innovation in the market. This is particularly so where the licensee possesses the necessary assets and skills to carry out research and development. In that case the Guidelines indicate the conditions of Article 81(3) EC are unlikely to be fulfilled. In other cases where several technologies are available and where the licensee does not possess special assets or skills, the restriction on research and development is likely to either fall outside Article 81(1) EC for lack of an appreciable restrictive effect or satisfy the conditions of Article 81(3) EC. The restraint may promote the dissemination of new technology by assuring the licensor that the licence does not create a new competitor and by inducing the licensee to focus on the exploitation and development of the licensed technology.[70]

G. The Safe Harbours

Article 3 of the TTBER establishes a safe harbour based on market share thresholds. The market share thresholds are 20% for agreements between competitors and 30% for agreements between non-competitors. Outside the safe harbour individual assessment is required. The fact that market shares exceed the thresholds does not give rise to any presumption either that the agreement is caught by Article 81(1) EC or that the agreement does not fulfil the conditions of Article 81(3) EC .

In the case of technology markets, it follows from Article 3(3) of the TTBER that the licensor's market share is to be calculated on the basis of the sales of the licensor and all his licensees of products incorporating the licensed technology and this for each relevant market separately. The relevant market share is thus the licensed technology's footprint on downstream product markets on which the products incorporating the licensed technology are sold. Where the parties are competitors on the technology market, sales of products incorporating the licensee's own technology must be combined with the sales of the products incorporating the licensed technology.

With regard to product markets, the licensee's market share is calculated on the basis of the licensee's sales of products incorporating the licensor's technology and competing products, i.e. the total sales of the licensee on the product market in question. Where the licensor is also a supplier of products on the relevant market, the licensor's sales on the product market in question

[70] See Guidelines, paras. 114 to 116.

must also be taken into account. In the calculation of a product market share, sales of other licensees are not taken into account.

The market share threshold, whether the 20% or 30% threshold, is applied relevant market by relevant market. If the agreement covers several relevant markets and the market share threshold is exceeded only on one or some markets, the block exemption continues to apply to the remaining markets where the threshold is not exceeded.[71] This rule clearly applies in cases involving distinct product and geographic markets. However, it is not entirely clear whether it also applies where the threshold is exceeded on an upstream technology market but not on a downstream product market.[72] It is submitted that the better view is that it does not. Given that technology markets are analysed on the basis of a technology's position on the downstream product market, it would be artificial to make a distinction between the upstream and the downstream market for the purpose of applying the block exemption. Once the threshold is exceeded on either market an arrangement covering these two markets should be subject to individual assessment in order to ascertain the overall impact of the agreement on competition. This interpretation corresponds to the general principle according to which block exemptions, being derogations, must be interpreted restrictively.[73]

The Guidelines contain in paragraph 131 an additional safe harbour. The Commission takes the view that except in the case of hardcore restrictions, Article 81 is unlikely to be infringed where there are four or more independently controlled technologies, in addition to the technologies controlled by the parties to the agreement that may be substitutable for the licensed technology at a comparable cost to the user.[74] It is not required that the technologies are already being used. It is sufficient that they are likely to come to market within a reasonable period of time.[75] The technologies must be of competitive significance. Their commercial strength must therefore be taken into account. The competitive constraint imposed by a technology is limited if it does not constitute a commercially viable alternative to the licensed technology. The Guidelines give the example where due to network effects in the market consumers have a strong preference for products incorporating the licensed technology.[76] In such circumstances other technologies may not

[71] See id., para. 69.

[72] The example given in para. 69 of the *Guidelines* refers to the situation involving distinct geographic markets or distinct product markets. Moreover, in example 3 in para. 73 it is stated that "As the agreement is between competitors, their combined market share, both on the technology and on the product market, has to be below the 20% market share threshold in order to benefit from the safe harbour."

[73] See e.g. Case C-70/93 *Bayerische Motorenwerke* [1995] ECR I-3439, para. 28, and Case 234/89 *Delimitis* [1991] ECR I-935, para. 46.

[74] This safe harbour is identical to the safe harbour contained in section 4.3. of the 1995 *US Guidelines for the Licensing of Intellectual Property*.

[75] See Guidelines para. 131.

[76] Ibidem.

constitute a real alternative and may therefore impose only a limited competitive constraint.

H. Withdrawal and Disapplication

According to Article 6 of the TTBER, the Commission and the competition authorities of the Member States may withdraw the benefit of the block exemption in respect of individual agreements that do not fulfil the conditions of Article 81(3) EC. The power of the competition authorities of the Member States to withdraw the benefit of the block exemption is limited to cases where the relevant geographic market is no wider than the territory of the Member State in question. Withdrawal implies that the agreement in question restricts competition within the meaning of Article 81(1) EC and does not fulfil the conditions of Article 81(3) EC. Withdrawal is therefore necessarily accompanied by a negative decision under Regulation 1/2003.

According to Article 6, withdrawal may in particular be warranted in the following circumstances:

(1) access of third parties' technologies to the market is restricted, for instance by the cumulative effect of parallel networks of similar restrictive agreements prohibiting licensees from using third party technology;
(2) access of potential licensees to the market is restricted, for instance by the cumulative effect of parallel networks of similar restrictive agreements preventing licensors from licensing to other licensees;
(3) without any objectively valid reason the parties refrain from exploiting the licensed technology.

The reference to market access for potential licensees must be read in light of paragraphs 164 and 165 of the Guidelines dealing with exclusive licensing. Contrary to the draft published for public consultation, the final version of the Guidelines does not highlight foreclosure of potential licensees as an area of particular concern. Indeed, in the case of agreements between non-competitors it is stated that the Commission will only exceptionally intervene against exclusive licensing, irrespective of the territorial scope of the licence. The example of a dominant licensee obtaining an exclusive licence to one or more competing technologies is described as a situation where exceptionally intervention may be required. However, in the case of dominance it is highly unlikely that the block exemption applies in the first place given the market share thresholds. It would therefore appear that Article 6(1)(b) is a 'left over' from the more restrictive approach of the published draft.

Article 7 of the TTBER enables the Commission to exclude from the scope of the TTBER, by means of regulation, parallel networks of similar agreements where such agreements cover more than 50% of a relevant market. Such a measure is not addressed to individual undertakings but concerns all undertakings whose agreements are defined in the regulation disapplying the TTBER. The instrument of disapplication was first introduced in Commission Regulation 2790/1999 on the application of Article 81(3) EC to categories of vertical agreements and concerted practices.[77] The main purpose was to allow the Commission to deal with cumulative effects of networks of, in particular, selective distribution agreements and non-compete agreements. In the field of licensing it is more difficult to identify obvious candidates for disapplication. It is submitted that in so far as networks of agreements give rise to foreclosure of competing technologies the appropriate action is withdrawal and prohibition. Disapplication is not sufficient given the fact that it merely restores the full application of Article 81. It does not in itself render the identified agreements null and void.

I. Application Outside the Scope of the Block Exemption

1. Introduction

Outside the scope of the block exemption, agreements are subject to individual assessment. There is no presumption of illegality of agreements that fall outside the scope of the block exemption provided that they do not contain hardcore restrictions of competition. The Guidelines provide guidance on the application of Article 81 EC to various types of licensing restraints and practices.

The analysis of licence agreements under Article 81 EC follows the same basic approach as that applied to other types of agreements. Licence agreements are assessed in the economic and legal context in which they occur with a view to determining their impact on competition on the market. In the application of Article 81(1) and (3) EC the dynamic aspect of licensing must be taken into account.[78] For licence agreements to be restrictive of competition they must affect actual or potential competition to such an extent that on the relevant market negative effects on prices, output, innovation or the variety or quality of goods and services can be expected with a reasonable degree of probability.

Such effects on competition may arise where the agreement restricts competition between the parties or between the parties and third parties. In certain circumstances licence agreements may facilitate collusion on the

[77] OJ L 336 [1999].

[78] See Guidelines para. 9.

market or create barriers to entry or expansion of rivals. Licence agreements may also, by imposing contractual restraints on licensees, restrict competition that would otherwise have occurred between licensees. The Guidelines distinguish two sources of competition, namely inter-technology competition and intra-technology competition.[79] The same agreement may be capable of affecting both inter-technology competition and intra-technology competition, in which case the impact of the agreement on both needs to be assessed.

Appreciable anti-competitive effects are likely to occur when at least one of the parties has or obtains some degree of market power and the agreement contributes to the creation, maintenance or strengthening of that market power or allows the parties to exploit such market power. The Guidelines use the term "significant degree of market power" to indicate the threshold where competition concerns will normally arise whereas the term "substantial market power" appears to be used to indicate dominance. However, no attempt is made to quantify these terms. Market power is a question of degree and the two terms indicate two points on a continuum.

Licence agreements also have substantial potential for generating pro-competitive efficiencies. Licensing may often promote innovation by enabling licensors to obtain a return on their investment and by creating design freedom for licensees that would otherwise face the risk of an infringement action by the licensor. Through the dissemination of technology the licensing also creates scope for synergies at the level of the licensee. When combining the licensed technology with his own technology and production assets the licensee may be able to achieve a cost/output configuration that would otherwise not be possible or to produce a new or improved product.

2. Royalty obligations

The parties to a licence agreement are normally free to determine the royalty payable by the licensee and its mode of payment without being caught by Article 81(1) EC. This principle applies both to agreements between competitors and agreements between non-competitors.[80]

In agreements between competitors it is a hardcore restriction when royalties are charged on products produced with the licensee's own technology. Such an obligation may also give rise to competition concerns when applied to third party technologies. When royalties extend also to products produced with third party technology, that technology is rendered less attractive. Irrespective of whether it is concluded between competitors or not

[79] See Guidelines, paras. 11 and 12.

[80] See id., para. 156. The Guidelines specifically mention that, in the case of software licensing, royalties based on the number of users and royalties calculated on a per-machine basis are generally compatible with Article 81(1) EC.

such an agreement may therefore give rise to foreclosure and should be analysed in the same way as other foreclosure restraints such as non-compete obligations, to ensure that the royalty obligation does not exclude the use of competing technologies.

Reciprocal running royalties in agreements between competitors increase marginal costs and feed directly into product prices. They can therefore be used to elevate prices. When the licensing arrangement is a sham in that it serves no pro-competitive purpose, reciprocal running royalties are caught by the hardcore list given the fact that the object of the agreement is to raise prices. In other cases Article 81(1) EC may also apply to reciprocal running royalties provided that the royalties are clearly disproportionate compared to the market value of the licence and where such royalties have a significant impact on market prices.[81] Given the difficulties in determining the market value of a technology and the fact that royalties must be disproportionate it is likely that the Commission will only rarely intervene against reciprocal running royalties outside the scope of the hardcore list.[82]

3. Exclusive licenses and sales restrictions

The TTBER makes a distinction between exclusivity relating to production on the basis of the licensed technology and restrictions on the sale of products incorporating the licensed technology. The two types of restrictions may be combined. If a single worldwide exclusive licence is granted, sales restrictions are irrelevant given the fact that for the duration of the agreement only the licensee can legally produce on the basis of the licensed technology. The block exemption covers non-reciprocal exclusive licensing between competitors and exclusive licensing between non-competitors, whereas reciprocal exclusive licensing between competitors is identified as a hardcore restriction.

The assessment of exclusivity outside the scope of the block exemption depends on the competitive relationship between the parties. Greater concerns arise in the case of agreements between competitors due to the possible impact on the ability and incentive for the licensor to compete on the market. If the licensor has limited capacity to compete in the licensed territory because he lacks the necessary production or distribution capacity, the agreement is unlikely to be caught by Article 81(1) EC.[83] The same is true where the location of production capacity is of little competitive significance and where as a consequence the granting of an exclusive production right does not significantly affect the ability of the licensor to compete on the market.

[81] See id., para. 158.

[82] It is recalled that under Article 2 of Regulation 1/2003 it is for the Commission to prove an infringement of Article 81(1) EC.

[83] See Guidelines para. 164.

Conversely, competition concerns arise if the parties have a significant degree of market power and the agreement reduces competition between the parties that would have occurred in the absence of the agreement.

In agreements between non-competitors exclusivity is unlikely to be caught by Article 81(1) EC irrespective of the market position of the parties and the scope of the licence. To intervene against the exclusivity once the licensee has made a commercial success of the licensed technology would deprive the licensee of the fruits of his success and would be detrimental to competition.[84] The main situation where intervention may be warranted is where an undertaking has already become dominant or near dominant on the basis of one licensed technology and subsequently obtains an exclusive licence for one or more competing technologies thereby foreclosing the market.[85]

The treatment of sales restrictions also depends on the competitive relationship between the parties and whether the restriction applies between the parties or restricts sales between one or both parties and other licensees. The TTBER block exempts, in non-reciprocal agreements between competitors, the restriction of active and passive sales into an exclusive territory or customer group of the other party and the restriction of active sales into the exclusive territory or customer group of another licensee who was not a competitor of the licensor at the time of contracting. Outside the block exemption the application of Article 81(1) EC, as always, depends on the degree of market power held by the parties. The likely impact of the agreement on the licensee's use of his own technology and the incentive for the parties to compete also need to be carefully analysed. If the royalty earned by the licensor is expressed as a percentage of the licensee's selling price, the licensor's royalty income will be affected by price reductions resulting from competition. The licensor will necessarily take this effect into account when determining his commercial strategy on the market, which may affect his incentive to compete. Under Article 81(3) EC it must, according to the Guidelines,[86] be taken into account whether the restrictions are necessary for licensing to occur. If the licensor and the licensee have a relatively weak market position in their protected areas, restrictions may be indispensable in order to induce the licensor to grant the licence and the licensee to take the licence. In such circumstances the conditions of Article 81(3) EC are likely to be satisfied provided that the licensed technology generates real efficiencies.

In the case of agreements between non-competitors the block exemption covers all active sales restrictions and restrictions on passive sales into an exclusive territory or customer group reserved for the other party. The block exemption also covers passive sales restrictions between exclusive territories

[84] See Guidelines, para. 165.

[85] See id., para. 166. This situation resembles that pertaining in Case T-51/89 *Tetra Pak Rausing v Commission ('Tetra Pak I')* [1990] ECR II-309, except for the fact that the dominant technology was not licensed.

[86] See id., para. 170.

and customer groups allocated to different licensees the first two years the licensee is selling the contract product. Beyond this period the latter restrictions are covered by the hardcore list. In case of individual assessment outside the block exemption it is important to note that sales restrictions fall outside Article 81(1) EC altogether when on the basis of objective factors it can be concluded in the individual case that in the absence of the restrictions licensing would not occur.[87] This is particularly likely to be the case with regard to restrictions in favour of the licensor. A technology owner cannot normally be expected to create direct competition with himself on the basis of his own technology. It may also be the case that a licensee would not be willing to take a licence if he had to face direct competition from the licensor. Sales restrictions between the parties are therefore likely to often either fall outside Article 81(1) EC or satisfy the conditions of Article 81(3) EC. Sales restrictions between licensees are likely to be caught by Article 81(1) EC when the individual licensee has a significant degree of market power.[88] Active sales restrictions may fulfil the conditions of Article 81(3) EC when they are necessary in order to prevent free riding or induce the licensee to invest optimally in the licensed technology. Passive sales restrictions are unlikely to satisfy the conditions of Article 81(3) EC beyond the two-year period covered by the block exemption.[89] In other words, when passive sales restrictions between licensees in agreements between non-competitors fail the test of paragraph 12(b) of the Guidelines they are likely to be caught by Article 81(1) EC and unlikely to satisfy the conditions of Article 81(3) EC.

4. Output restrictions

Most output restrictions are block exempted and subject to individual assessment outside the scope of the block exemption. Only reciprocal output restrictions in licence agreements between competitors constitute a hardcore restriction covered by Article 4(1)(b) of the TTBER. In the case of non-reciprocal output restrictions in agreements between competitors, competition concerns start to arise when the parties have a significant degree of market power.[90] The Commission appears to assume that when the parties have a significant degree of market power a limitation of the output produced by the licensee with the licensed technology will restrict competition that would have occurred in the absence of the agreement. However, whether that is true depends on the specific circumstances facing the licensee. If the agreement does not lead the licensee to reduce output produced with his own technology the agreement does not restrict inter-technology competition.

[87] See id., para. 172, which applies the test laid down in para. 12(b) of the *Guidelines*.

[88] See id., para. 174.

[89] See in this respect Case 258/78 *Nungesser and Kurt Eisele v Commission* [1982] ECR 2015.

[90] See Guidelines para. 175.

In cases where Article 81(1) EC applies, output restrictions may satisfy the conditions of Article 81(3) EC. According to the Guidelines,[91] Article 81(3) EC is likely to apply in cases where the licensor's technology is substantially better than the licensee's technology and the output limitation substantially exceeds the output of the licensee prior to the conclusion of the agreement. In that case the effect of the output limitation is limited even in markets where demand is growing. The Guidelines also express a favourable opinion of site licenses whereby the agreement limits the licence to a particular production site with a specific capacity.[92] The Guidelines opine that, where such agreement leads to a real integration of complementary assets, it is unlikely to fall foul of Article 81 EC below the level of dominance.

Output restrictions in agreements between non-competitors may in particular restrict intra-technology competition between licensees. This impact is exacerbated when such restrictions are combined with territorial and customer restrictions. However, there is no presumption that output restrictions serve to restrict active and passive sales by licensees.[93] Moreover, it can be argued that output restrictions imposed on licensees often are not caught by Article 81(1) EC. The licensor should normally be entitled to determine the scope of the transfer of his property by imposing limitations on the output of the licensee. As stated in the Guidelines,[94] if the licensor were not free to do so, a number of licence agreements might not come into existence in the first place, which would have a negative impact on the dissemination of new technology. It is likely that the licensor would be particularly reluctant to license where he is also a producer, since in that case the output of the licensees may find their way back into the licensor's main area of operation and thus have a direct impact on these activities.

5. Field of use restrictions

Under a field of use restriction the licence is either limited to one or more technical fields of application or one or more product markets.[95] Fields of use

[91] Ibidem.

[92] Ibidem.

[93] See id., para. 98.

[94] See id., para. 178.

[95] When assessing field of use restrictions from the perspective of product markets it is essential that such markets be defined at the appropriate level, namely the level at which the licensed technology is used as an input. This can be illustrated by an example based on Case 234/89 *Delimitis v Henninger Bräu* [1991] ECR I-935, which concerned the issue of foreclosure at the distribution level. In its judgment the Court of Justice held that there are two relevant beer distribution markets, namely a market for off-premise consumption and a market for on-premise consumption. However, in the case of a licence of beer technology it would not be appropriate to apply the same market definition. There would likely be one market for beer technology, and the

must be defined objectively by reference to identified and meaningful technical characteristics of the licensed product. This is necessary in order to distinguish field of use restrictions from customer restrictions, which under the TTBER are subject to stricter treatment. The Guidelines[96] give the following examples of field of use restrictions: an engine technology that may be employed in four cylinder engines and six cylinder engines and a technology may be used to make chipsets with up to four CPUs and more than four CPUs. Licences limiting the use of the licensed technology to produce four cylinder engines and chipsets with up to four CPUs constitute technical field of use restrictions. It follows that field of use restrictions are based on the characteristics of the products and not on the characteristics of the buyer.

Field of use restrictions are treated favourably irrespective of whether the agreement involves competitors or non-competitors. The Guidelines[97] recognise that if the licensor could not prevent licensees from operating in fields where he exploits the technology himself or in fields where the value of the technology is not yet well established, it would likely create a disincentive for the licensor to license or would lead him to charge a higher royalty. It is also recognised that in certain sectors licensing often occurs to ensure design freedom by preventing infringement claims. Within the scope of the licence the licensee is able to develop his own technology without fearing infringement claims by the licensor. This is particularly important in high tech and other industries where a multitude of intellectual property rights create thickets hampering innovation. Cross-licensing between competitors may be an effective way to resolve such problems and create necessary design freedom. Allowing the parties to impose field of use restrictions promotes the conclusion of such generally pro-competitive agreements.

In the case of agreements between competitors the main competitive concern is the risk that the licensee will cease to be a competitive force outside the licensed field of use. According to the Guidelines,[98] this risk is greater in the case of cross licensing between competitors where the agreement provides for asymmetrical field of use restrictions, i.e. an arrangement where one licensee is licensed one field of use and the other licensee is licensed another field of use. Symmetrical licenses on the other hand are less likely to give rise to competition concerns. It cannot be excluded that such agreements may facilitate collusion by creating a high degree of commonality of costs. Undertakings that have similar costs are more likely to have similar views on

grant of a distinct licence covering production for off-premise consumption should be qualified as a customer restriction and not a field of use restriction.

[96] See Guidelines para. 179.

[97] See id., para. 182.

[98] See id., para. 183.

the terms of coordination.[99] However, even where production on the basis of the same technologies makes up a substantial part of the cost structures of the undertakings concerned, individual undertakings may differ in efficiency in exploiting the technology and may also use different inputs, leading to different costs. It is therefore submitted that, in the case of licensing, cost commonalities should only rarely lead to licence agreements being caught by Article 81(1) EC.

According to the Guidelines,[100] it must also be taken into account whether the licensee's production facility, which is tooled up to use the licensed technology, is also used by the licensee to produce with his own technology outside the licensed field of use. If the agreement is likely to lead the licensee to reduce output outside the licensed field of use, the agreement is likely to be caught by Article 81(1) EC.

Field of use restrictions in agreements between non-competitors whereby the licensor reserves one or more product markets or technical fields of use for himself are according to the Guidelines generally either non-restrictive of competition or efficiency enhancing.[101] They promote dissemination of new technology by giving the licensor an incentive to license for exploitation in fields in which he does not want to exploit the technology himself.

6. Captive use restrictions

A captive use restriction is an obligation on the licensee to limit production of the licensed product to the quantities required for the production of his own products and for the maintenance and repair of his own products.[102] In the case of agreements between competitors the main issue to be assessed is how the agreement affects the ability and incentive for the licensee to supply components based on his own technology. Competition concerns are likely to arise where, prior to the agreement, the licensee was an actual or likely supplier of components on the market and the agreement is likely to impact negatively on this activity. This may particularly be the case where, by tooling up to use the licensor's technology, the licensee ceases to use his own technology on a stand alone basis.[103]

[99] See *Commission Notice on Guidelines on the application of Article 81 of the Treaty to horizontal cooperation agreements* OJ C 3 [2001], para. 23. As is clear from Case T-342/99 *Airtours v Commission* [2002] ECR II-2585, para. 62, for a finding of tacit collusion it is not sufficient that the undertakings in question are able to tacitly agree on the desired outcome, which may be facilitated by a commonality of costs. They must also be able to monitor each other's market conduct and retaliate in the case of deviation.

[100] See Guidelines para. 183.

[101] See id., para. 184.

[102] See id., para. 186.

[103] See id., para. 187.

When the parties to the agreement are non-competitors, captive use restrictions may limit intra-technology competition on the market for inputs. However, according to the Guidelines,[104] if the licensor is a supplier of components, the restraint may be necessary in order for the dissemination of technology between non-competitors to occur. In the absence of the restraint the licensor may not grant the licence or may do so only against higher royalties, because otherwise he would create direct competition to himself on the component market. In such circumstances the restraint will normally escape Article 81 EC. Where the licensor is not a component supplier and the licensees have a significant degree of market power, the restraint is likely to be caught by Article 81 EC as it restricts intra-technology competition that would otherwise have occurred between the licensees.

7. Tying and bundling

In the context of technology licensing, tying occurs when the licensor makes the licensing of one technology (the tying product) conditional upon the licensee taking a licence for another technology or purchasing a product from the licensor or someone designated by him (the tied product). Bundling occurs where two technologies or a technology and a product are only sold together as a bundle. In both cases it is a condition that the products and technologies involved are distinct. It is sufficient in this respect that, due to product differentiation, there is distinct demand for each of the products and technologies forming part of the tie or the bundle. It is not required that, in addition, they belong to separate product markets.

The main restrictive effects of tying are: (a) foreclosure on a downstream market as a means of maintaining market power in the upstream tying market. Tying may raise barriers to entry when it obliges an undertaking, contemplating entry in the market for the tying product, to also enter the market for the tied product. (b) Foreclosure of competing suppliers on the market for the tied product, producing negative effects such as reduced product variety and product innovation. (c) Tying may also allow the licensor to increase royalties, in particular when the tying product and the tied product are partly substitutable and the two products are not used in fixed proportion. Tying prevents the licensee from switching to substitute inputs in the face of increased royalties for the tying product. These competition concerns are independent of whether the parties to the agreement are competitors or not.

For tying to produce likely anti-competitive effects the licensor must have a significant degree of market power in the tying product so as to restrict

[104] See id., para. 189.

competition in the tied product. In the absence of market power in the tying product the licensor cannot use his technology for the anti-competitive purpose of foreclosing suppliers of the tied product.[105] The tie must also cover a sufficient portion of demand on the tied market so as to produce likely foreclosure effects.

Tying can also produce pro-competitive efficiencies. The Guidelines give two examples of such efficiencies.[106] First, the tied product is necessary for a technically satisfactory exploitation of the licensed technology or for ensuring that production under the licence conforms to quality standards respected by the licensor and other licensees. Second, tying is likely to be pro-competitive where the tied product allows the licensee to exploit the licensed technology significantly more efficiently.

9. Exclusive dealing

Under a non-compete obligation the licensee is obliged not to use third party technologies which compete with the licensed technology. The main competitive risk presented by non-compete obligations is foreclosure of third party technologies.[107] Foreclosure effects may result from agreements concluded by a single licensor or by a cumulative effect of agreements concluded by several licensors, even where each individual agreement or network of agreements is covered by the TTBER.[108]

Foreclosure may arise where a substantial part of all possible licensees are tied to one or, in the case of cumulative effects, more sources of technology and are prevented from exploiting competing technologies. According to the Guidelines, a serious cumulative foreclosure effect is unlikely to arise as long as less than 50 % of the market is tied.[109] In the case of a single undertaking, foreclosure effects may arise where the undertaking in question has a significant degree of market power and there are significant barriers to entry.[110] The stronger the market position of the licensor, the higher the risk of foreclosing competing technologies. The risk of foreclosure is particularly high where there is only a limited number of potential licensees and the licence agreement concerns a technology which is used by the licensees to make an input for

[105] See Guidelines para. 193. If the licensor has market power in the tied product, the restraint should be analysed as exclusive dealing on the tied market, or, in the case of bundling, as bundling based on market power in the tied market.

[106] See id., paras. 194 and 195.

[107] Non-compete obligations may also facilitate collusion between licensors in the case of cumulative use.

[108] In the latter case, the application of Article 81 EC requires withdrawal of the block exemption.

[109] See Guidelines para. 199. The threshold is the same as that applied in the Guidelines on Vertical Restraints (OJ C 291 [2000], para. 146) in the case of intermediate products.

[110] See id., para. 200.

their own use. In such cases the entry barriers for a new licensor are likely to be high.[111] The reason is the fact that in such circumstances the licensees represent demand in the market. If this demand is tied, new entry requires not only that the licensee produce the input but also the final product that incorporates the input. Entry is therefore required at two levels. However, also in the case where a single undertaking holds a strong position on the market, foreclosure is generally only likely where a substantial part of the market is foreclosed.[112]

Non-compete obligations may also produce pro-competitive effects. First, such obligations may promote dissemination of technology by reducing the risk of misappropriation of the licensed technology, in particular know-how. If a licensee is entitled to license competing technologies from third parties, there is a risk that particularly licensed know-how would be used in the exploitation of competing technologies and thus benefit competitors.[113] Secondly, non-compete obligations, possibly in combination with an exclusive territory, may be necessary to ensure that the licensee has an incentive to invest in and exploit the licensed technology effectively.[114]

10. Settlements

Licensing may serve as a means of settling disputes or avoiding a situation in which one party exercises his intellectual property rights to prevent the other party from exploiting his own technology. Such agreements are treated like any other licence agreement.[115] Licensing, including cross licensing in the context of settlement agreements and non-assertion agreements, is not as such restrictive of competition since it allows the parties to exploit their technologies post agreement. However, the individual terms and conditions of such agreements may be caught by Article 81(1) EC.[116] Agreements whereby the parties cross license each other and impose restrictions on the use of their technologies, including restrictions on licensing to third parties, may be caught by Article 81(1) EC.[117] Where the parties have a significant degree of market power and the agreement imposes restrictions that clearly go beyond what is required in order to unblock the technologies concerned, the agreement is likely to be caught by Article 81(1) EC even if it is likely that a

[111] *Ibidem.*

[112] If it is not, it needs to be substantiated that the tied licensee(s) are the most likely to deal with new entrants, for instance because they have the most flexible production assets that can most readily be adapted to use alternative technologies.

[113] See Guidelines para. 201.

[114] See id., para. 202.

[115] See id., para. 204.

[116] Ibidem.

[117] See id., para. 207.

mutual blocking position exists. Article 81(1) EC is particularly likely to apply where the parties share markets or fix reciprocal running royalties that have a significant impact on market prices.[118]

The Commission takes the view in the Guidelines[119] that non-challenge clauses in the context of settlement agreements generally are not caught by Article 81(1) EC. According to the Commission, it is inherent in such agreements that the parties agree not to challenge *ex post* the intellectual property rights covered by the agreement. The Commission expressed the same view in *Bayer v Süllhöfer*.[120] However, the Court of Justice rejected the argument, referring to the fact that Article 81(1) EC makes no distinction between agreements whose purpose is to put an end to litigation and those concluded with other aims in mind and that a non-challenge clause included in a patent licensing agreement may, in the light of the legal and economic context, restrict competition within the meaning of Article 81(1) EC. It is submitted that the Commission's approach is correct and in line with other judgments where the Court of Justice has held certain restraints to fall outside Article 81(1) EC because they formed an inherent part of a particular type of agreement.[121]

11. Licensing of future developments

Agreements whereby the parties cross-licence competing technologies and agree to share future improvements and developments may negatively affect the parties' incentives to innovate. Such agreements are likely to be caught by Article 81(1) EC where they prevent the parties from gaining a competitive lead over each other.[122] This approach is based on standard patent race theory.[123] Innovation can be seen as a race to develop future successful products. Uncertainty as to the innovative efforts made by rivals and the risk of being left behind creates incentives to invest in innovation. If the parties commit to exchanging future innovations they know that they will remain on an equal technological footing, eliminating the gain from competing on innovation. However, for this concern to materialise the parties must have a strong position on the market. If there are several other competitors investing

[118] See in this respect the decision of the US Federal Trade Commission of 23.2.1999 in *Summit Technology and VISX*.

[119] See Guidelines para. 209.

[120] Case 65/86 *Bayer v Süllhöfer* [1988] ECR 5249.

[121] See e.g. Case C-399/93 *Luttikhuis v Coberco* [1995] ECR I-4515, Case C-250/92 *Gøttrup-Klim Grovvareforeninger v Dansk Landbrugs Grovvareselskab* [1994] ECR I-5641, and Case 161/84 *Pronuptia de Paris v Pronuptia de Paris Irmgard Schillgallis* [1986] ECR 353.

[122] See Guidelines para. 208.

[123] See e.g. Tirole J. (1988): *The Theory of Industrial Organisation*, MIT Press, Massachussets, pp. 394 *et seq.*

in innovation, the competitive pressure from such third parties will suffice to maintain the incentive of the parties to innovate. Moreover, the agreement to exchange future innovations must have a significant impact on overall competition between the parties. As stated in the Guidelines "the agreement must prevent the parties from gaining a competitive lead over each other". This is not the case where the agreement only covers a limited aspect of the competing products sold by the parties. For instance, the fact that two car manufacturers agree to licence future improvements of their brake technology is unlikely to have a significant impact on future competition between them. The parties are also unlikely to be prevented from gaining a competitive lead over each other where the purpose of the licence is to allow the parties to develop their respective technologies and where the licence does not lead them to use the same technological solutions. [124] Such agreements merely create design freedom by preventing future infringement claims by the other party.

J. Technology Pools

The notion of technology pools covers agreements whereby two or more parties agree to pool their respective technologies and license them as a package. It also covers arrangements whereby two or more undertakings agree to license a third party and authorise him to license out the assembled package of technologies.[125] Agreements establishing technology pools and setting out the terms and conditions for their operation are not covered by the block exemption. They are only covered by the Guidelines. However, the individual licences granted by the pool to third party licensees are treated like other licence agreements and may therefore be covered by the block exemption.[126]

Technology pools may give rise to mainly two types of efficiencies.[127] Pooling reduces transaction costs and clears blocking positions where licensees need the various technologies in the pool in order to produce the product to which the pool relates. Only one agreement needs to be concluded. Pooling also ensures that a single overall royalty can be fixed, thereby avoiding a stacking of royalties with resulting double marginalisation. As is clear from these efficiencies, the benefits relating to technology pools stem

[124] See Guidelines para. 208.

[125] See id., paras. 41 and 210.

[126] See id., para. 212.

[127] Pools may also allow the members to share the cost of enforcing the intellectual property rights against infringers, which helps maintain the value of the technologies. The Guidelines emphasise the importance of innovation and dynamic competition. An improved ability to enforce valid intellectual property rights should therefore be viewed positively.

from the complementary nature of the pooled technologies. Conversely, the anticompetitive potential of pools relates largely to the technologies in the pool being substitutable with other technologies in the pool or technologies outside the pool.

1. The nature of the pooled technologies

The Guidelines refer to "technologies" as opposed to elements of a technology. At first sight, this might seem contradictory given the fact that technology pools generally purport to create a technology or part of a technology that can be used to produce a certain product. For instance, the technology required to produce DVD discs and players is controlled by a number of undertakings that have formed distinct pools, each licensing part of the overall technology. However, the term "technologies" is useful in the sense that it also encompasses the situation where the pool covers competing technologies or competing technological solutions for part of the technology as well as the situation where there are competing technological solutions for part of the overall technology outside the pool.

Two basic distinctions are useful for the purposes of assessing pools under Article 81, namely, the distinctions between (a) technological complements and technological substitutes, and (b) essential and non-essential technologies.

Two technologies are complements as opposed to substitutes when they are both required to produce the product or carry out the process to which the technologies relate.[128] Conversely, two technologies are substitutes when either technology allows the holder to produce the product or carry out the process to which the technologies relate. A pool can be compared to a jigsaw puzzle consisting of a number of pieces that make up the overall technology licensed by the pool. Each piece is a technology for the purposes of the Guidelines. If all the pieces are needed to make the puzzle, the technologies are complements. If there are identical or very similar pieces inside the pool, these technologies are substitutes. The same is true where there are identical or very similar pieces outside the pool.

A technology is essential as opposed to non-essential if there are no substitutes for that technology inside or outside the pool and the technology in question constitutes a necessary part of the package of technologies for the purposes of producing the product(s) or carrying out the process(es) to which the pool relates. It follows that for a technology to be essential it must satisfy the following conditions: (i) it must be technically necessary to make a product in conformity with the pooled technology and the underlying

[128] See Guidelines para. 216.

standard that it supports,[129] (ii) there must not be substitute technologies inside the pool, and (iii) there must not be substitute technologies outside the pool.

The assessment of whether a technology constitutes a necessary part of the package of technologies for the purposes of producing the product(s) or carrying out the process(es) to which the pool relates requires a comparison of the product/standard specification and the scope of the individual technologies included in or proposed for inclusion in the pool. While on the face of it this test is objective and relatively straightforward, it must be taken into account that technical necessity is often a question of design. If collectively the pieces assembled in the pool depict a castle with a moat, a blue sky and one white cloud, the piece with the white cloud forms a necessary part of the puzzle as designed. However, in itself the chosen design says very little about the importance of the cloud and its colour. Indeed, it may be that the colour of the cloud could just as well have been grey or that it could have been left out altogether. This is important to keep in mind when assessing the consequences of including non-essential technologies in the pool.

Under the Guidelines the assessment of substitutability is based on the 'but for' test, which entails an assessment of whether, in the absence of the agreement, the technologies in question would be interchangeable from the point of view of consumers, in which case they impose a significant competitive constraint on each other.[130] In the case of pools, interchangeability is first and foremost assessed from the point of view of the product/standard to which the pool relates.[131] The question is whether there are alternative ways of making (part of) a product that is in conformity with the underlying design. Technologies that are technically essential in the sense that they are necessarily infringed to practise a provision of the design have no substitutes and are therefore essential within the meaning of the Guidelines. However, substitutability is not synonymous with technical necessity.

Under the Guidelines, economic factors must be taken into account in the assessment of substitutability. It is expressly provided that two technologies may be deemed to be complements even if they are partly substitutable.[132] This is the case where, due to efficiencies stemming from the integration of the two technologies, licensees are likely to demand both technologies. In that case, the technologies in question are treated as complements even if they are partly substitutable. Similar considerations may lead to the conclusion that one technology is not a substitute for another. If, but for the pool, a third party technology would not be a viable substitute in the eyes of licensees, the existence of such third party technology in question should not affect the

[129] That is, to the extent that such a standard exists.

[130] See, e.g., Guidelines para. 27.

[131] However, it may also be necessary to assess whether the conditions imposed on licensees foreclose the market to other pools and other products.

[132] See Guidelines para. 218.

classification of a patent as essential. In such cases, exclusion of the technology from the pool would only raise transaction costs. However, it important for this assessment to be made 'but for' the pool so as to take due account of the fact that the creation of the pool is likely to distort substitution patterns given that licensees already obtain one of the technologies through the pool licence.

2. Competition concerns relating to the creation of the pool

When a pool is composed only of technologies which are essential and which are therefore by necessity also complements, the creation of the pool as such generally falls outside Article 81(1) EC irrespective of the market position of the parties and the pool.[133] By contrast, when non-essential technologies are included, the pool may be caught by Article 81(1) EC. In analysing whether that is the case, the three aspects of essentiality described above should be kept in mind, i.e., technical necessity, substitutes inside the pool and substitutes outside the pool.

The inclusion in the pool of technologies that are not technically necessary is not necessarily restrictive of competition. There may be doubt as to the necessity of the technologies in question but the technologies may be relevant and useful to the application of the overall technology that constitutes the core of the pool. The main competition concern arising in such cases stems from the tying of non-essential technologies to essential technologies. Such cases should therefore be analysed in accordance with the principles concerning tying and bundling.[134] In the absence of foreclosure concerns, which are dealt with below, the main risk is that, due to the tie, royalties will increase. However, this risk would seem relatively limited. If the technology in question is complementary and the great majority of licensees in practice use the technology, they are getting value for money. If, on the other hand, the technology is only valuable to a limited number of licensees, the scope for using the non-essential technology to raise prices would appear limited as the inclusion of the patent does not create additional market power. Licensors have a common interest in avoiding double marginalisation and an individual interest in ensuring that individual shares of royalties reflect the value of individual contributions to the overall technology.

When there are substitutes inside the pool, the risk is that the price will be higher than they would otherwise be due to the elimination of competitive

[133] See id., para. 220. However, Article 81 EC may be applicable where the parties are main competitors for another product that competes with the product made with the pooled technologies. In that case, the parties may have an incentive to increase royalties in relation to the pool so as to preserve their market power as regards the other product.

[134] Paras. 191 to 195 of the Guidelines are relevant in this respect.

constraints. In the Guidelines, the Commission considers that the inclusion of substitute technologies in the pool implies that the pool is caught by Article 81(1) EC. The Commission also considers that it is unlikely that the conditions of Article 81(3) EC will be fulfilled in the case of pools comprising, to a significant extent, substitute technologies.[135] When substitute technologies are included, the pool does not generate efficiencies and allows competitors to coordinate their prices. When the pool is to a substantial extent composed of substitute technologies the pool amounts to a price fixing cartel.

It is submitted, however, that the Guidelines may be too categorical when they state that inclusion of substitute technologies in the pool constitutes a violation of Article 81(1) EC. Given the practical difficulty in determining the competitive relationship between two technologies and the fact that a pool which is composed mainly of essential technologies can hardly be qualified as a restriction by object, it is likely that in practice the Commission will have regard to whether or not the inclusion of substitute technologies is likely to have an appreciable effect on royalties. Indeed, in order to find a restriction of competition by effect the Commission must show that the agreement has likely negative effects on competition on the market.[136] The inclusion of substitute technologies of minor importance is unlikely to create competition concerns. As long as the main pieces of the puzzle that make up the relevant technology are complementary, the inclusion of substitutes is unlikely to have an appreciable impact on price. In this context it must be taken into account that royalties may be negotiated *ex ante*.[137] It is likely that in such negotiations the key parts of the technology will obtain a lion's share of the royalties. If the pool is mainly composed of complementary pieces, the owners of these technologies are unlikely to let the owners of substitute elements use the pool as a vehicle for price fixing. It is likely that these latter contributors will compete to be included in the pool and therefore collectively attract little more than the royalty which they would be able to obtain individually.

Competition concerns may also arise when there are substitute technologies outside the pool. Once a technology is included in the pool and licensed as part of the package, licensees are likely to have little incentive to take a license for a competing technology when the royalty paid for the package already covers a substitute technology.[138] On the other hand, foreclosure is only an issue if the pool has a strong position on the market. According to the Guidelines,[139] a pool is likely to be caught by Article 81(1) EC where it has a significant position on any relevant market. However, given the benefit to licensees of one-stop licensing, it is submitted that the conditions of Article 81(3) EC are likely to be satisfied unless the pool holds

[135] See id., para. 219.
[136] See id., para. 15.
[137] See id., para. 225.
[138] See id., para. 221.
[139] Id.

a dominant position or at least a position approaching dominance.[140] In individual cases, the significance of the technology for which substitutes exist outside the pool must also be taken into account. The aim of Article 81 EC is to protect competition on the market. It is not sufficient for the application of Article 81(1) EC that any third party technology is being excluded. The exclusion must have an appreciable impact on dynamic competition, which presupposes that the excluded technology is of some significance.

Given that substitute and complementary technologies may be developed after the creation of the pool, the assessment of essentiality is an ongoing process. One way to deal with this reality is to exclude from the pool technologies that have become non-essential. However, the Guidelines[141] also outline a number of factors that may provide a basis for keeping the technology in question inside the pool. The listed factors are the following: (a) any pro-competitive reasons for including the non-essential technologies in the pool; (b) the possibility for licensors to license independently;[142] (c) where the pooled technologies have different applications, the possibility for licensees to obtain a licence for separate packages for distinct applications; and (d) the possibility for licensees to obtain a licence for only part of the package with a corresponding reduction of royalties. Letter (c) seeks to address the situation where the pooled technologies have different applications, some of which do not require the use of all the pooled technologies. However, such a situation is only caught by Article 81(1) EC in the first place if bundling is likely to lead to higher prices. It is therefore necessary to consider the importance of the technology in question to the overall package. Letter (d) seeks to address the situation where there are substitutes outside the pool that risk being foreclosed and where it may be a relevant option for the pool to offer a licence that excludes the substitute technology. The main difficulty is setting the royalty for such an alternative licence. To avoid foreclosure of competing technologies, the royalty must be reduced by an amount reflecting the relative value of the technology in question. However, in practice it may be very difficult to assign a true value to the technology. In cases where real foreclosure concerns arise, it may therefore be simpler to eject the technology in question from the pool.

[140] It may in particular be otherwise if parallel networks of licence agreements give rise to a cumulative effect.

[141] See Guidelines para. 222.

[142] If licensors are free to license independently, licensees may be able to assemble their own package. However, the benefits of pools, namely the reduction of transaction costs and double marginalisation, will in many cases render this option a rather theoretical one.

3. Assessment of individual restraints

The individual licence agreements concluded by the pool are subject to the TTBER, including the hardcore list contained in Article 4. The Guidelines further provide that, where the pool has a dominant position on the market, royalties and other licensing terms should be fair and non-discriminatory and licences should be non-exclusive.[143]

It is further provided that licensors and licensees must be free to develop competing products and standards and must also be free to grant and obtain licences outside the pool.[144] These requirements are said to be necessary in order to limit the risk of foreclosure of third party technologies and to ensure that the pool does not limit innovation and preclude the creation of competing technological solutions. Where a pool supports a (*de facto*) industry standard and where the parties are subject to non-compete obligations, the pool is said to create a particular risk of preventing the development of new and improved technologies and standards. However, it would not be appropriate to mechanically apply the principles of Article 4(1)(d) of the TTBER and consider that all the said restraints are hardcore restrictions.

The Guidelines also address the fixing of pool royalties and the sharing of these royalties amongst the participants.[145] Undertakings setting up a technology pool are generally[146] free to negotiate and fix royalties for the technology package and to determine each technology's share of the royalties either before or after the standard is set. It is very important that royalties can be negotiated before the selection of the technologies that eventually form part of the pool. The value of a technology which is being proposed for a pool is a function of price and performance. *Ex ante* negotiations are likely to lead to the selection of the technologies with the best price/performance ratio. Where the pool creates a standard, *ex post* negotiations may confer a significant degree of market power on one or more essential technologies.[147]

The value of a technology package does not depend on the number of essential technologies contained in the pool. An essential patent or other

[143] See Guidelines para. 226.

[144] See id., para. 227.

[145] See id., para. 225.

[146] This statement presupposes that the pool does not give rise to price fixing concerns between substitute technologies.

[147] *Ex ante* negotiations may in some circumstances lead to buyer power concerns. If the pool supports an industry standard, negotiations involving suppliers of substitute technology could drive prices down to marginal costs, which in the case of licensing are close to zero. In sectors where standards are commonplace, this could have a chilling effect on the incentive to innovate.

Article 4(1)(d) precludes application of the block exemption where the licensee's ability to exploit its own technology is restricted and it concerns all agreement between competitors. If the licence agreements concerns all agreements between non-competitors, account must be taken, in an individual case, of the market position of the pool and the pool's likely impact on new sources of competition.

intellectual property right can be equated with a key that unlocks the whole or part of an overall technology. The value of such an overall technology is the same irrespective of the number of keys required to gain access to it. In cases where there is more than one holder of essential technologies and where a pool may therefore be relevant, there is no mechanical relationship between the number of intellectual property rights and royalties. In other words, save for problems of double marginalisation, there is no reason why royalties should be higher when there are four essential technologies in the package compared to when there are only two. The Guidelines do not deal with this issue explicitly, which is particularly relevant in cases where patents are registered asymmetrically in the sense that not all essential technologies are patent protected in all territories covered by the pool. In such cases there would appear to be no reason to expect that the undertakings will fix distinct royalties depending on the number of patents registered in each territory and it is submitted that the Commission should not oblige them to do so.

4. The institutional framework governing the pool

The way in which a technology pool is created, organised and operated can reduce the risk of it having the object or effect of restricting competition and can provide assurances to the effect that the arrangement is pro-competitive.[148]

When participation in a standard and pool creation process is open to all interested parties representing different interests, it is more likely that technologies for inclusion in the pool are selected on the basis of price/quality considerations than when the pool is set up by a limited group of technology owners. Similarly, when the relevant bodies of the pool are composed of persons representing different interests, it is more likely that licensing terms and conditions, including royalties, will be open and non-discriminatory and will reflect the value of the licensed technology than when the pool is controlled by licensor representatives.[149] However, this is not to say that pools representing only licensor interests are necessarily caught by Article 81(1) EC. For that to be the case, it must be shown that the creation of the pool or the restrictions imposed on licensees have as their object or likely effect the restriction of competition on the market.

According to the Guidelines,[150] the involvement of independent experts in selecting the technologies that are included in the pool can go a long way in ensuring that a commitment to include only essential technologies is implemented in practice. In assessing the weight to be given to the involvement of

[148] See Guidelines para. 230.

[149] See id., para. 231.

[150] See id., para. 232.

experts, the Commission will, *inter alia,* take account of who the expert is and how he has been selected and what are the specific tasks allocated to him. The involvement of independent experts in the operation of a pool is not under the Guidelines a condition for compatibility with Article 81(1) EC. The decisive factor in this regard is whether the agreement has as its object or likely effect the restriction of competition on the market. It must also be taken into account that the use of experts may be costly. It is submitted that the involvement of experts is more valuable as regards the assessment of whether there are substitutes inside the pool. This assessment can be difficult and the likelihood of challenges by members of the pool is likely to be limited. As regards third party technologies outside the pool, it is more likely that a third party that risks being excluded from the market will challenge the inclusion of the patent in question.

VIII

*Steven Anderman**

Technology Transfer and the IP/Competition Interface

A. Introduction

EC competition policy and intellectual property rights (IPRs) are becoming widely recognised as complementary components of a modern industrial policy. Both policies pursue the common aim of improving innovation and consumer welfare but each pursues this aim by using rather different means. Intellectual property legislation such as patents, copyright and design rights laws offer IP right holders a period of exclusive rights to exploit their property right as both a reward to the individual and as an incentive to the wider process of innovation and R&D investment. Modern competition policy attempts to keep markets innovative and competitive by maintaining effective competition. The means it uses to pursue this aim include maintaining access to markets and preventing "foreclosure" or monopolisation of markets.

At first sight there may seem to be a potential clash in the methods used by the two systems of legal regulation to achieve their common aim. The concern to maintain access to markets appears to be implacably opposed to the concept of exclusive rights to make, use and sell a product. And indeed, historically there was a period when the misunderstanding of the economic effects of IPRs led EC competition policy to attempt to place overly strict limits on the exercise of IP rights, particularly in the field of patent licensing.[1]

Today, however, the inter-relationship between the two systems of law is characterised more by its accommodations than by its conflict. These accommodations often occur as an incidental result of the ordinary doctrines of each system. Thus, IP laws make a contribution to effective competition and maintaining access to markets by devices within their own internal doctrines which strive to maintain a balance between "initial" inventors and creators and "follow on" invention and creation. Good examples are the "fair use"

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[1] In the period from the 1950s to the 1970s there was a strong concern to limit the scope for licensing because of the influence of the patent misuse doctrines of the US judiciary and the "Nine No-Nos" of the US Department of Justice/FTC in respect of patent licensing. In the 1960s and 1970s there were internal EC worries about market partitioning heightened by the *Consten and Grundig* judgment (Joined Cases 56/64 and 58/64 *Consten and Grundig* v. *Commission* [1966] ECR 299). During this period little thought was given to the pro-competitive features of IPRs and IP licensing or the damaging economic effects of a restrictive competition policy upon investment in IPRs and IP licensing.

doctrine in copyright law, the doctrine of "non-obviousness" and the provision of compulsory licensing in patent law and interoperability imperatives and decompilation rights in the computer program directive. On rare occasions, as in the EC database directive, the accommodation will be explicitly spelt out in the IP law itself.

Within EC competition law the accommodation also tends to occur more often by the incidental effect of the logic of the general doctrines of competition law than by special treatment. A good example of special treatment is the legislation of Japan and Australia which simply creates an immunity from competition law for the exercise of IPRs. When one looks at EC competition law the most obvious example of special treatment is the "exceptional circumstances" test embedded within the abuse of refusal to supply under Article 82 EC[2]: The exceptional circumstances test represents an important acceptance by competition law that IPRs are not the same as all other forms of property rights even while maintaining that the exercise of IPRs must be subject to the regulatory limits of competition policy.[3]

However, Article 82 EC also provides an accommodation to the exercise of IPRs in the ordinary logic of the concept of dominance. As is well known, the attainment of dominance as such is not unlawful. Once dominant, a firm must accept "special responsibilities" but only if it engages in abusive conduct will it be behaving unlawfully. EC competition law accepts that the achievement of market dominance by organic growth[4] including investment in R&D and intellectual property rights protection is a legitimate course of conduct for a firm. Moreover, the special responsibilities of a dominant firm do not preclude it from growing at the expense of its competitors as long as its conduct is 'competition on the merits.' This is an example of how IPRs can benefit from the logic of an ordinary doctrine of EC competition law rather than one specifically dedicated to IPRs.[5]

[2] This doctrine includes the corollary proposition that the "normal" exercise of IPRs will not abuse a dominant position. Only in extreme cases where IPRs are used unjustifiably by their highly dominant owners to exclude competitors from markets does EC competition policy reserve a right to intervene to limit the exercise of IPRs. It defines the special responsibilities of a dominant firm towards weakened competition so as to allow the dominant IPR owner to compete by preventing copying even if the exercise of this right denies access to primary markets to competitors. The test of "exceptional circumstances" requires evidence of leveraging conduct in "after markets.

[3] IPR specialists express reservations about whether competition law has drawn the line at the right position. In terms of the current need to establish an industrial policy that promotes innovation both by IPRs and competition policy, it is certainly necessary to subject the "exceptional circumstances" test to continuous review to ensure that it represents the best balance between EC competition policy and the exercise of IPRs.

[4] Growth to dominance by mergers and acquisitions is treated as fundamentally different.

[5] Perhaps an example of a dedicated rule is that EC competition law acknowledges that the pricing of IPRs, even by dominant firms, must include a return which *adequately* reflects the reward/incentive function of IPRs

This observation offers a good perspective for viewing the relationship between Article 81 EC and IP licensing under the new post-modernised legal framework.

The accommodation with IPRs in the new TTBER[6] and TT Guidelines[7] occurs almost entirely within the logic of the doctrines of competition law. The 2004 TT Guidelines[8] do not state explicitly that IP protected products are treated as any other form of property rights, as did the US Guidelines in 1996,[9] but an analysis of the new methodology makes it plain that there is little special treatment for IPRs under Article 81. Most of the accommodation takes place through the incidental benefits of the logic of the ordinary interpretation of Article 81 EC under the modernisation programme. In the TT Guidelines and Recitals there is evidence that the competition authorities have made a considerable effort to understand the nature of IPRs and IPR licensing .Thus, they acknowledge that the creation of IPRs often entails substantial investment and that it is often a risky endeavour. They state plainly that "[i]n order not to reduce dynamic competition and to maintain the incentive to innovate, the innovator must not be unduly restricted in the exploitation of the IPR that turn out to be valuable." In particular, they must be able to seek compensation for successful projects that takes failed projects into account. The Commission also acknowledges that technology licensing may require the licensee to make considerable sunk investments in the licensed technology and production assets necessary to exploit it.[10] Moreover, the TT Guidelines have accepted that the great majority of licensing agreements are pro-competitive and compatible with Article 81 EC.[11]

Nevertheless, the nature of the accommodation chosen by the Commission is broadly to fit the assessment of licensing agreements into the modernised framework of Article 81 rather than to offer much in the way of special treatment such as could be found in the 1996 TTBER. As the TT Guidelines confidently proclaim "[i]n assessing licensing agreements under Article 81, the

[6] *Commission Regulation (EC) No 240/96 of 31 January 1996 on the application of Article 85 (3) of the Treaty to certain categories of technology transfer agreements*, OJ L 31 [1996].

[7] European Commisssion (2004): *Guidelines on the application of Article 81 of the EC Treaty to technology transfer agreements*, OJ C 101 [2004].

[8] *Commission Regulation (EC) No 772/2004 of 27 April 2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements* , OJ L 123 [2004].

[9] See US Department of Justice and FTC (1996): *Antitrust Guidelines for the licensing of intellectual property,* text available at http://www.usdoj.gov/atr/public/guidelines/0558.htm. The US Guidelines state that: "(para. 2.0) (a) for the purpose of antitrust analysis, the Agencies regard IP as being essentially comparable to any other form of property and apply to conduct involving IP on the same basis as to conduct involving any property tangible or intangible". IP has different characteristics but "[T]hese characteristics can be taken into account by standard antitrust analysis and do not require the application of fundamentally different principles. . ." (para 2.1).

[10] *TT Guidelines* para. 8.

[11] *TT Guidelines* para. 9. See para. 17 too, in which the Commission sets out the pro-competitive potential of licensing agreements.

existing analytical framework is sufficiently flexible to take due account of the dynamic aspects of technology licensing.” The new framework clearly harmonises the treatment of licensing agreements with that of other agreements under Article 81 EC. However, what needs to be examined at this stage is whether in engaging in this process of harmonisation, the analytical framework has made the needed special adjustments to take due account of the dynamic aspects of technology licensing.

The new TTBER and TT Guidelines have been brought into being two years early to fit within the overall project to modernise the application of Article 81 EC to agreements. The modernisation project, consisting of a new procedural regulation (Regulation 1/2003), three framework BERS and at least four Commission Notices, has in common four features:

In the first place, it changes the application of Article 81(1) EC to agreements by requiring more of an *economic analysis* of whether agreements have the object or *effect* of restricting competition.

Secondly, the national authorities and courts now have jurisdiction to apply Article 81(3) EC and will therefore apply Article 81 as a whole, effectively applying the balancing test in Article 81(3) EC. In the interests of modernisation, the Commission has relinquished its longstanding monopoly over Article 81(3) EC.

Thirdly, there is no longer any need for formal application for exemption under Article 81(3) EC to ensure provisional validity. The legal status of agreements will be judged at any time on the basis of the compatibility of the agreement and its provisions with the prohibition of Article 81 EC, in particular Article 81(3) EC. The Guidelines to the application of Article 81(3) EC applies to all the modernised BERs.

Fourthly, the BERs now only offer a safe harbour and not the legal certainty of the old style BERs. Previous BERs in the IP licensing field conferred an exemption on the parties without market shares and subject only to a formal power of withdrawal by the Commission or a national competition authority. If there was a blacklisted provision in the agreement, the agreement was unexemptible and unenforceable. In the current group of BERs, including the TTBER, BERa as such take a reduced role within the overall regulatory framework. Today, if an agreement is outside the scope of the safe harbour offered by a BER, the parties may nevertheless find a basis for exemption under Article 81(3) EC using the general Article 81(3) EC guidelines and the guidelines for the specific type of agreement.

Consequently, today it is helpful to see that we have a two-tier regulatory system for agreements generally and for IP licensing agreements in particular. The first tier is the safe harbour of the TTBER. The second tier consists of the Guidelines to the application of Article 81 EC to licensing agreements *outside the safe harbour* of the TTBER. It is this feature of the reform that I wish to develop in my talk today-the shift from a one to a two tier system of regulation under Article 81 EC as it applies to IP licensing agreements.

We have long enjoyed an intimate co-existence with the old system of block exemption regulation of IP licensing. Like any longstanding relationship it has had the effect of making its partners accustomed to its faults as well as its good points. The old one-tiered system of BERs allowed us as lawyers considerable authority to bestow final approval upon licensing agreements merely by comparing the contents of the BER with the licensing agreement. The system was formalistic, based on white lists, blacklists and grey lists and we invested heavily in the skills of the legal interpretation of their details and complexities. We had access to a four month opposition procedure to seek advice where interpretation was unclear. We could make a formal application for exemption when investment costs were high and the licensing agreement took an unconventional turn.

The one-tier system was based on the mentality that whatever that was not allowed was prohibited. This mentality was associated with an old fashioned regulatory system, one that it created a tight corset or even a legal straitjacket. The parties had to adjust their commercial arrangements to fit the legal rules or forego the benefits of legally certain enforceability of the commercial agreement throughout its duration. For those commercial agreements whose curves could fit within the corset of the BER, there were considerable benefits. The legal certainty offered by the one tiered system was important for technology transfer agreements because of the ever present risks that licensees might go into competition with their licensors once they mastered the problems of efficient manufacture of the new technology. However, for those commercial agreements whose contours were either too angular or plump to fit within the "golden corset," there was a form of legal limbo.

Now we have a new two-tiered legal system. Under this new regime, we have less legal certainty but greater flexibility. One result of the new more economic interpretation of Article 81 EC has been the loosening of the prescriptive legal straitjacket of the previous TTBER. Because the scope of the TTBER has been widened and the hardcore restrictions have been reduced, the new framework offers considerably greater flexibility to the parties to draft IP licensing agreements to reflect their preferred underlying commercial bargain. No longer is it necessary to twist commercial arrangements into the strictly defined categories offered by the existing BERS.

However, the opportunity offered by the new interpretation of Article 81 EC comes at a high price for lawyers. We must learn a new mentality. We must learn not only the substantive changes in the economic reform of the application of Article 81 EC to IP licensing agreements but also a new methodology. We must put aside all our carefully won skills in giving an interpretation of the old style TTBER and learn new skills.

There are three features of the new mentality that should be highlighted. The first and the most obvious is that we, as lawyers, will need to acquire a greater understanding of the new, more *economic* approach to the assessment of licensing agreements. Second, somewhat less obvious, is the mental somersault we must make to adjust our perspective to the *relative importance of the TTBER and the TT Guidelines*. Instead of following our old instincts and concentrating on the details of the safe harbor of the new TTBER we must give at least equal time to the details of the new economic interpretation of Article 81(1) EC and Article 81(3) EC as they apply to licensing agreements outside its scope. And that requires us to master the Guidelines with as much skill as we master the details of the new TTBER. For the reality is that the new system reduces the role of the TTBER in the regulatory framework and makes it necessary to look to the framework of analysis in the second tier for the more complete assurance of legal enforceability. This becomes quite clear once we realize that under the new regime we cannot fully rely on the TTBER's safe harbor because of its low market shares limits and the volatility of market shares where new technology is concerned. Thirdly, we must revise our mentality *from a "closed" regulatory system to an "open" one.* Under the old system, the single tier system, the mentality was that anything that was prohibited by the BER was not allowed. A blacklisted provision was per se non-exemptible unless the parties made a formal application for exemption. The white-lists offered the menu for acceptable contractual provisions clauses and if the provision you wanted was not in the white-lists you were in the gray area and needed a non-opposition notice from the Commission. Today, the paradigm has shifted. The new mentality is that anything that is not prohibited may be allowed as long as it meets the new test under Article 81 EC. This new mentality will take some adjustment to our thinking.

We can take two *examples* from legal practice.

The first example, designed to show how the new framework has "deregulated" the position within the TTBER, concerns the treatment of grant-backs of improvements under Article 5. As far as *severable* improvement are concerned Article 5 says that the licensor cannot insist upon a grant-back provision in the form of an assignment or exclusive license. So the way is left open for the licensor to insert a grant-back of a non-exclusive license of the licensee's improvements. However the Article says nothing about the licensor's obligation to reciprocate. Nor does it say anything about the treatment of *non-severable* improvements. What can we conclude from the silence? We are used to the detailed roadmap and symmetrical treatment of the 1996 TTBER. Can we assume that, because a particular grant-back clause for *non-severable* improvements is not blacklisted or excluded, it is allowed? Yes, within the TTBER the new framework leaves that issue to freedom of contract as long as the grant-back does not interfere with the autonomous R&D of the licensee. However, the story does not end there. We must also prepare for the possibility that the licensing agreement might lose the safe harbour of the TTBER and then all will have to be assessed under the new methodology of Article 81 EC.

My second example is more sweeping and is designed to show that outside the TTBER there is a life in the form of a balancing test under Article 81(3)

EC rather than oblivion and that this true in principle even for hard core restrictions. In many respects, the hard core restrictions on licensing agreements *between competitors* in particular reciprocal agreements between competitors, are much more demanding than those for agreements between non-competitors and agreements between non-reciprocal competitors. An exclusive grant of territory can take the agreement outside the safe harbour of the TTBER. However, all is not lost because the Guidelines offer a possible path to redemption. By applying the new methodology set out in the Guidelines, it just may be possible to find a basis for exemption of the agreement outside the scope of the TTBER. This will have to be on the basis of self assessment rather than a formal application for individual exemption to the Commission.

In other words, the immediate reaction of many lawyers to the new framework may be to wash their hands of its seemingly elaborate economic demands and say "forget the market shares and simply avoid the hard core and excluded restrictions." To do this, as many are now doing in practice, is perfectly legitimate as far as it goes but it fails to explore the full flexibility allowed by the new framework and may therefore fail to cater for the certain complex commercial transactions. An important feature of the new framework is that in principle even in the case of a hard core restriction, outside the TTBER, the anticompetitive effects can still be outweighed by the pro-competitive benefits. As the Guidelines point out such a result is unlikely but it is not completely excluded.

Having now made my point about the need for a new mentality, I intend to offer an analysis of key issues raised by the new methodology. However, it may be helpful at this stage to give a short summary of the main points of the TTBER.

B. The Main Features of the New Technology Transfer Regulation (TTBER)

The main new features of the TTBER are:

- a wider scope for IPRs to be included as core technology.
- a differentiated treatment for agreements between non-competitors and competitors
- new differentiated market shares limits
- new differentiated hard core restrictions
- new excluded restrictions

1. The scope and duration of the TTBER (Articles 1 and 2)

The TTBER extends the safe harbour to a wide range of IPR licensing agreements and assignments: Pure and mixed patent[12] and know-how agreements have been expanded to include software copyright licensing agreements and design rights licensing agreements. All these IPRs are viewed as the "core" technology to be licensed.[13]

The TTBER also allows a wider variety of IPRs to be included in the licensing[14] package along with the core "technology" as long as they are "ancillary" provisions.[15] To meet the test of ancillarity, they must (i) not constitute the primary object of the agreement and (ii) be directly related to the manufacture or provision of the contract products. This formula is clearer than its predecessor. The test is whether the other IPR is included essentially to enable the licensee to better exploit the core licensed technology. If it appears that that licensing the "ancillary" IPR, say a trademark is the real purpose of the agreement, it will not be exempted under TTBER.

The TTBER offers a both a wider, and more clearly defined, scope for IP licensing than its predecessor. Moreover, although the TTBER itself does not extend to copyright licensing other than software licensing, the TT Guidelines state that the principles set out in the TTBER and TT Guidelines will apply to traditional forms of copyright by analogy.[16] The TT Guidelines are less positive about pure trademark licensing; they state that the TTBER is not intended to extend to pure trademark licensing, even by analogy.[17] So, the types of IPR that can be licensed and either fall within the safe haven or be self-certified as acceptable under Article 81 are quite wide and varied. Nevertheless, has the Commission really co-ordinated its reform closely with the other Directorates concerned with IPRs. Why have licenses of *sui generis* databases been left out? What is the economic logic of excluding other mixed IP licenses where they amount to a transfer of technology?

The application of the block exemption is also conditional upon the fact that the licensing agreement must be concluded for the purpose of *producing* contract products.' [Art. 2], i.e. products incorporating or produced with the licensed technology. [TT Guidelines para. 41] Licences contained in agreements which are primarily for *reselling* or *distribution* purposes are excluded and parties to such agreements will have to look to the vertical distribution agreements exemption regulation for exemption. In respect of sublicensing, agreements by licensees to *sub-licence* the licensed technology are covered but

[12] "Patents" are widely defined to include utility models, designs, topographies of semiconductor products and plant breeder's certificates. (Article 1(1)(h)).

[13] Art 1(1)(b).

[14] *TT Guidelines* para. 53.

[15] Recital 9; Art 1(1)(b).

[16] *Guidelines* para. 51.

[17] *Guidelines* para. 53.

pure *sublicensing* agreements are not exempted by TTBER although the principles of the Regulation will apply by analogy to such agreements [TT Guidelines para. 42] Finally, since the TTBER only deals "with agreements where the licensor permits the licensee to exploit the contract products," it "should not deal with licensing agreements for the purpose of *sub-contracting research and development'* Recital 5 indicates that the exemption could apply to exploitation by the licensee in the form of manufacturing and selling "possibly after further research and development by the licensee". [TT Guidelines para. 44].

The exemption conferred by the TTBER has a potentially longer duration than its predecessor; it can last "as long as the intellectual property right in the licensed technology has not expired, lapsed or been declared invalid or, in the case of know-how for as long as the know how remains secret." If the know how becomes publicly known as a result of action by the licensee, the exemption will continue to apply for the duration of the agreement. The block exemption will apply separately to each licensed property right covered by the agreement but will continue in effect until the date of expiry, invalidity or the coming into the public domain of the last intellectual property right which constitutes "technology" as defined by Article 1 of the TTBER. The BER itself expires in 2014, so contracts cannot be expected to remain block exempted after that date. On the other hand licensing agreements which are self certified as exempted can last longer than ten years, the limit imposed by TTBER 1996 on know-how, if the know-how remains secret or the patent remains valid.

2. The distinction between "licensing agreements between competitors" and " licensing agreements between non-competitors (Article 1)

The 1996 version of TTBER was based on the view that most IP licensing agreements should be treated as potentially "horizontal" agreements between competitors in part because the licensee often evolves into one as the result of the experience with manufacturing the new technology. Yet the overwhelming evidence was that at the time they are signed, most licensing agreements are actually "vertical," i.e., agreements between non-competitors. The economic realism of the new TTBER has resulted in a division of licensing agreements into two main categories- agreements between non-competitors or agreements between competitors- and a recognition that the regulatory concerns are considerably greater in the case of horizontal agreements. This has resulted in a re-evaluation of prohibited restraints in the case of vertical licensing agreements and the creation of a deservedly more benign regulatory regime. This reform is far reaching because it applies not only within the confines of the safe harbour but also up to a point of where the parties market shares may be as high as 40%-50% as long as they fall below dominance.

Moreover, the TTBER gives an economically-enlightened definition of vertical "agreements." It applies not only to the paradigm vertical case of an agreement between an inventor and a manufacturer but also to an agreement between two manufacturers as long as they are not competitors in respect of the licensed product.. In "product markets" competitors are defined as "actual" competitors, i.e. competing undertakings who in the absence of the technology transfer agreement would have been active on the relevant product and geographic markets on which the contract products are sold without infringing each other's intellectual property rights.[18] The one complication is that in product markets, "competitors" also includes "potential" competitors, i.e., those who are realistically in a position to undertake the necessary investments and accept the switching costs of entering the same market had the price of the product been raised.[19] In "technology markets", the definition of competitor is limited to "actual" competitors.[20]

A further feature of the Regulation that is helpful to IP licensing is that it defines the parties as "competitors" or "non-competitors" *at the time the contract is made* and will not allow the natural competition that may develop as the result of the licensing agreement as the manufacturing expertise of the licensee matures to affect the designation of the contract. Thus, if the parties are non-competitors at the time the agreement is made, they will not be re-designated for the purposes of the exemption during the duration of the agreement unless the agreement is materially amended.[21] The distinction between agreements between competitors and non-competitors has led to two specific legal effects within the TTBER: different market share limits to the safe harbour of the TTBER [Article 3] and different hard core restrictions in licensing agreements [Article 4 (1) and (2)].

3. The market share thresholds (Article 3)

If the TTBER has been helpful to IP licensing in other respects, it has created complications for IP licensing by introducing a system of market share limits in order to harmonise it with the economic approach to Article 81 used in the design of the Vertical Agreements BER. By introducing a new legal regime whereby its "safe harbour" is limited by market share limits.[22] the TTBER radically alters the nature of the block exemption and the overall legal

[18] Article 1(j)(ii); *TT Guidelines* paras. 24 and 31.

[19] Article 1(j)(ii).

[20] Article 1(j)(i).

[21] Article 4 (3); *Guidelines* para. 31; see too paras. 32–33.

[22] Recitals 10 and 11; *TT Guidelines* paras. 26–33.

framework for IP licensing. Under the guise of giving greater recognition of the economic realities of IP licensing, it creates legal uncertainty for the parties in volatile new technology markets. For licensing agreements between non-competitors, the block exemption will not apply where the licensed product *of each of the parties* exceeds 30% of the relevant market[23] because such agreements normally impose a lower risk to competition.[24] For the parties to agreements between competitors or "horizontal" licensing agreements, the exemption will not apply where the licensed product *of both parties* exceeds a 20% market share.[25] In defining the market for the licensed *product,* both actual and potential competition are relevant.[26] If the agreement is to licence *technology* only actual competition will be considered.[27]

If the product which is the subject of a technology transfer agreement exceeds the market share ceiling at any time during the course of the contract, it will lose the benefit of the block exemption after an uninterrupted[28] transition period of two years. As mentioned, the Regulation makes no concession to the volatility of relationships during the term of the licensing agreement as it did in respect of status of the parties as competitors or non-competitors whereby if the parties are non-competitors at the time the agreement is made, they will not be re-designated for the purposes of the exemption during the duration of the agreement unless the agreement is materially amended.[29]

If an agreement loses its exemption under the TTBER, it will not be automatically prohibited by Article 81(1) EC; nor will any notification be required to the Commission. Indeed, the agreement may still be individually exempted by an analysis of Article 81(3) EC as it applies to the agreement using the TT Guidelines and the case law of the Community Courts and Commission. However, to lawyers accustomed to the old style block exemption regulation, the greater legal security of the safe harbour of the block exemption will be replaced by the somewhat more precarious legal security of self certification.

4. The hard core restrictions (Article 4)

The TTBER places considerable emphasis upon a narrow blacklist of prohibited "hard core" restrictions whose presence in a licensing agreement

[23] Article 3(2).

[24] Recital 11; *TT Guidelines* paras. 68 and 69.

[25] Article 3(1); Recital 10; *TT Guidelines* paras 66, 67, 69, 131.

[26] Article 1(j)(ii) *TT Guidelines* paras 28, 29, 67.

[27] Article 1(j)(i); *TT Guidelines* paras 30, 66.

[28] Presumably, if the market share false at any time during the two year period, the transitional period ends and if it rises again above the market share threshold, a new two-year transitional period commences.

[29] Article 3.1; *TT Guidelines* para. 3.

make it unexemptible under the BER but also almost always unenforceable under Article 81 EC generally. The hard core restrictions have been drafted on the supposition that they are 'almost always anti-competitive.'[30] Yet it is important to see that the effect of Article 4 is to take the licensing agreement outside the safe harbour of the BER but not necessarily make the agreement irredeemably void as did the blacklist in the previous BER. Under the new regime a provision which is hard core restricted can still be rescued under Article 81(3) EC analysis outside the safe haven of the TTBER. [See Part C below]

The hard core restrictions have been defined differently depending upon whether the licensing agreement that contains them is horizontal, i.e., between competing undertakings or vertical i.e., between non-competing undertakings.

4.1. The hard core restrictions in agreements between non-competitors (Article 4(2))

For agreements between non-competitors, [Art 4(2)] the general hardcore restrictions[31] are restricted to two main anticompetitive features of "vertical" agreements. They include price fixing (Art 4(2)(a) and territorial restrictions on sales Article 4 (2)(b). ["the restriction of the territory into which, or of the customers to whom, the licensee may passively sell the contract products . . ."

Moreover, even under Art 4(2)(b) there are a series of exceptions consisting of permitted territorial restrictions, including obligations on licensees not to sell *passively* into the exclusive territory of another licensee, Art 4(2)(b) (ii) not sell at all into the exclusive territory of the licensor, Art 4(2)(b)(i) requiring the licensee to manufacture or provide contract products only for its own use, etc.

The Commission has acknowledged the indispensability of protection against *passive* sales for licensees.

> ". . . it is unlikely that licensees would not enter into the licence without protection for a certain period of time against passive (and active) sales into the exclusive territory of a licensee by other licensees."

This statement recognises the strategic importance of passive sales protection as an incentive in the technology transfer agreement and the Regulation provides that licensors can provide every licensee with protection for two years from the sale of the licensed product in its territory against passive sales by other licensees manufacturing the same licensed product in other territories. The theory is that the two years should be sufficient for each

[30] *TT Guidelines* para. 74.

[31] There is a third hard core restriction that applies to territorial restrictions and to restrictions of active and passive sales to end users by a licensee who is part of a selective distribution system.

licensee to familiarise itself with the production process to achieve the efficiencies to allow it to catch and compete on equal terms with other licensees. [32]

4.2. The hard core restrictions in agreements between competitors (Article 4(1)

Where the licensee competes with the licensor at the time the agreement is concluded, the Regulation contains four main hard core restrictions. The first three are basic anti -cartel competition rules such as bans on price fixing,[33] reciprocal output limitations[34] and market allocation clauses.[35] The fourth is a prohibition on licensors restricting the licensee's ability to carry out their R&D and exploit their own technology.[36]

The Regulation chosen to create a special category of agreement between competitors which takes the form of a non reciprocal licensing agreement. In such a case, the licensor is allowed under an exception to Article 4(1)(c) to offer an exclusive license, that is a license to produce and sell the contract products without the licensor himself producing goods in that territory or selling the contract goods from that territory. In such a case, the licensee will merely be doing what the licensor was entitled to do and hence that restriction, on its own, cannot be viewed as anticompetitive. Indeed, it may even be argued that Article 81(1) EC does not apply to a simple exclusive license between licensor and licensee as long as the agreement involves no third parties such as other licensees.[37] A second analogous exception consists of field of use provisions. A field of use restriction limits the exploitation of the licensed technology by the licensee to one or more particular fields of use leaving untouched the licensor's ability to exploit the licensed technology in another field. A good example is offered by a maize seed variety which is licensed for animal food only with the licensor retaining exclusive rights to exploit the seed variety for human foodstuffs. Field of use restrictions may be "exclusive" or "sole" and are treated for competition purposes as analogous to exclusive or sole territorial licenses. Again, as long as the field of use obligation is limited to the licensing agreement , it is little more than a subdivision of the licensor's own powers and may not even be caught by Article 81(1) EC.

[32] See discussion in *TT Guidelines* at paras. 107–116.

[33] Article 4(1)(a) *TT Guidelines* paras. 79–80, 156.

[34] Article 4((1)(b) *TT Guidelines* paras. 82–83, 175.

[35] Article 4(1)(c); *Guidelines* para. 84.

[36] Unless it is to prevent the licensed know-how being disclosed to third parties (in which case, the restriction must be proportionate and necessary to prevent the disclosure of the licensed technology. Article 4(1)(d) See too *TT Guidelines* para. 94.

[37] *Confer*, Article 4(2) of Regulation 17/62, discussed in Anderman S., *op. cit.*, pp. 52–53.

5. Excluded restrictions (Article 5)

The Commission has also created a short list of prima facie excluded restrictive conditions in Article 5 which, unlike hard core restrictions, are only void in themselves; they will not affect the remainder of the agreement. The Commission has in effect introduced a severability rule for such clauses. Whilst they cannot be exempted as part of the block exemption process, they can in principle be exempted individually if they meet the four conditions of Article 81(3) EC. There are three main excluded restrictions: (a) any direct or indirect obligation by the licensee to assign or to grant an exclusive licence in respect of its own severable improvements to the licensed technology; (b) any direct or indirect obligation by the licensee to assign or to grant an exclusive licence in respect of its own severable improvements to the licensed technology; (c) any direct or indirect obligation on the licensee not to challenge the validity of the IPRs held by the licensor.

Article 5(2) then adds that where the parties are not competing undertakings, any direct or indirect obligation limiting the licensee's ability to exploit its own technology or limiting the ability of any of the parties to the agreement to carry out research and development unless indispensable to prevent the disclosure of the licensed know-how to third parties. It is worth noting that this latter exclusion, as well as Article 4(1)(d) for agreements between competitors, may place some limits on the drafting of provisions in respect of the non-severable improvements of the licensee.

C. The New Methods of Assessing Individual Restraints in Licensing Agreements Outside the Safe Harbour of the TTBER

The new Guidelines offer a general methodology for the economic and legal analysis of licensing agreements under Article 81 EC both within and outside the safe haven of the TTBER. However, this general methodology in fact results in very different treatment for agreements between non-competitors than for agreements between competitors.

Before examining the details of the differences in their treatment, it is helpful to look more closely at how the difference between licensing agreements between competitors and those between non-competitors is ascertained under the new legal framework.

1. The distinction between *competitors* and *non-competitors* under the TTBER and the TT Guidelines

The modernisation reform has delivered an important change to the treatment of licensing agreements by drawing a careful and more enlightened distinction between agreements between competitors and those between non-competitors. Since, as we know, it is mainly the former type of licensing agreement that contains the greater risks of anti-competitive harm, a carefully defined distinction allows a more refined filter of the risky from the less risky agreements and as a result a more efficient regulatory structure.

Historically the BERS rather crudely distinguished between "vertical" and "horizontal" agreements. Vertical agreements were defined as agreements between undertakings each of which operates at a different level of the production or distribution chain. Horizontal agreements were defined as agreements between undertakings operating at the same level of the production and distribution chain. While relatively easy for lawyers to apply, this distinction meant the vertical agreements were defined narrowly and horizontal agreements too widely and as a consequence, competition concerns were incorrectly aimed at agreements between many agreements between non-competitors.

As part of the Commission's new economic approach, the Guidelines on Vertical Agreements stressed that the test should be whether the relationship between the parties operating *for the purposes of the agreement* was at a different level of the production and distribution chain. This meant that there could be a "vertical agreement" between firms on the same level, i.e. two manufacturers, as long as they are manufacturing products which are not in competition with each other. The Guidelines to Vertical Agreements stated that an undertaking could be "active at more than one stage of the production and distribution chain "

The TTBER and the Commission's Guidelines to Technology Transfer Agreements have also adopted an economically enlightened view of the distinction between the two types of agreement. The test is whether the parties would have been actual or potential competitors *in the absence of the agreement*. If without the agreement, the parties would not have been competitors, they will be deemed to be non-competitors.[38]

There are two major features of the test worth highlighting:

1. *The TTBER draws a distinction between "product markets" and "technology markets"*[39] *and defines competing undertakings differently in each market. Under the TTBER, the licensor and licensee can either be actual or potential*

[38] Article 1(j)(ii).

[39] Outside the safe harbor of the TTBER, potential competition can be taken into account to some extent in technology markets *TT Guidelines* para. 66.

competitors in the product market but only actual competitors in the technology market.

The licensor and licensee will be viewed as actual competitors when in the absence of the agreement they: ". . . are both active on the same relevant product market and the same geographic market(s) or the same technology market [40]without infringing each others' intellectual property rights. Consequently, the existence of blocking patents will be important in the analysis[41]

The licensor and licensee will be viewed as *potential competitors* on the relevant product market and geographic market(s) if in the absence of the agreement and without infringing the intellectual property rights of the other party, it is likely that they would have undertaken the necessary additional investment to enter the relevant market in response to a small but permanent increase in product prices within a short period such as a year or two.[42]

Finally, the TT Guidelines make special provision for "breakthrough" products such as drastic inventions which make the competitor's technology obsolete.

[40] A "technology market" is defined under the *TT Guidelines* para. 22 as consisting of the technologies which are rivals to the technology of the licensor. If any technologies would be substitutable for licensees faced with a SSNIP, then those technologies are in the same market. Guidelines para. 23 suggests that an alternative approach is to calculate the shares of the technology by reference to the market share of its licensed product on the relevant product market. See *TTBER* Article 3(3).

[41] If the parties own technologies that are in a one-way or two-way *blocking patent position* the parties are considered to be non-competitors on the technology market. A one-way blocking position exists when a technology cannot be exploited without infringing upon another technology. This is for instance the case where one patent covers an improvement of a technology covered by another patent. In that case the exploitation of the improvement patent presupposes that the holder obtains a licence to the basic patent. A two-way blocking position exists where neither technology can be exploited without infringing upon the other technology and where the holders thus need to obtain a licence or a waiver from each other. In assessing whether a blocking position exists the Commission will rely on objective factors as opposed to the subjective views of the parties. Particularly convincing evidence of the existence of a blocking position is required where the parties may have a common interest in claiming the existence of a blocking position in order to be qualified as non-competitors, for instance where the claimed two-way blocking position concerns technologies that are technological substitutes. Relevant evidence includes court decisions including injunctions and opinions of independent experts. In the latter case the Commission will, in particular, closely examine how the expert has been selected. However, also other convincing evidence, including expert evidence from the parties that they have or had good and valid reasons to believe that a blocking position exists or existed, can be relevant to substantiate the existence of a blocking position. [para. 32]

[42] However, in individual cases longer periods can be taken into account. The period of time needed for undertakings already on the market to adjust their capacities can be used as a yardstick to determine this period. The parties are for instance likely to be considered potential competitors on the product market where the licensee produces on the basis of its own technology in one geographic market and starts producing in another geographic market on the basis of a licensed competing technology. In such circumstances, it is likely that the licensee would have been able to enter the second geographic market on the basis of its own technology, unless such entry is precluded by objective factors, including the existence of blocking patents..

A good example is offered by the US Licensing Guidelines, Example 5:"AgCO, a manufacturer of farm equipment, develops a new, patented emission control technology for its tractor engines and licenses it to FarmCo, another farm equipment manufacturer. AgCo's emission control technology is far superior to the technology currently owned and used by FarmCo, so much so that FarmCo's technology does not significantly restrain the prices that AgCo could charge for its technology.. AgCo's emission control patent has a broad scope. It is likely that any improved emission's control technology that FarmCo could develop in the foreseeable future would infringe AgCo's patents".

Note that they are not *actual* competitors in emission control technology despite both being manufacturers of emission control technology.

Note that they are not likely *potential* competitors in emission control technology because of the blocking patent.

2. *The second feature is that if the parties are non-competitors at the time the agreement is concluded, they will continue to enjoy the more liberal regime of hard core restrictions for the duration of the agreement unless the agreement itself is materially altered.*[43] *This will be true even if the licensees and licensors become actual competitors at a later date because "the licensee starts licensing out his technology or the licensor becomes an actual or potential supplier of products on the relevant market," This was a concession made by the Commission who had originally intended a reassessment at any time that commercial conditions called for one. Outside the TTBER the position is more complex and we shall come back to it in context.*[44]

2. The new concept of "restrictions on competition"

Once the status of the parties as competitors or non-competitors at the time contract is made is determined, the next step in the analysis of licensing agreements under Article 81(1) EC outside the TTBER is to decide whether the licensing agreement as a whole or any provision within it constitutes a "*restriction on competition* "under Article 81(1) EC.

Under the old regime, the interpretation of Article 81(1) EC was very wide. The blacklisted provisions of restrictions by object were extensive because they were influenced by a theory that contractual restraints could be

[43] Article 4(3). In some cases it may also be possible to conclude retrospectively that even though the licensor and the licensee produced competing products at the time the agreement was made , they are nevertheless non-competitors on the relevant product market and the relevant technology market because the licensed technology represents such *a drastic innovation* that the technology of the licensee is rendered obsolete or uncompetitive. This classification can be made at any stage when it becomes clear that the licensee's technology has become obsolete or uncompetitive on the market. (*TT Guidelines* para. 33]

[44] See e.g. *TT Guidelines* para. 31.

restrictions of competition by restricting the freedom of action of the other party or parties. In other words, if a contractual restraint restricted the rivalry between licensor and licensee or between one of them and a third party that contractual restraint amounted to a restriction of competition under Article 81(1) EC of contractors and third parties associated with the contract. There was a doctrine of *appreciability* in the case of licensing agreements of small quantitative impact. And there was a doctrine of *ancillary restraints* in the case law of the ECJ in such cases as *Pronuptia, Maize Seeds, Coditel and Erauw Jacquery*, etc. However, the issue of analysing Article 81(1) EC closely to avoid the reach of Article 81 EC altogether was rarely on the practitioner's agenda since the parties tended to accept that the BER was the main source of legal salvation.

Under the new regime, the status of the agreement under Article 81(1) EC is more important to analyse because there is a greater prospect that the agreement and its provisions can be assessed as not constituting "preventions, restrictions or distortions of competition" in the meaning of the prohibition in Article 81(1) EC. The issue of exemptibility may never arise. The key reason for this is that while many IP licensing agreements by their very commercial nature will contain contractual "*restrictions*" on licensors and licensees, under the new methodology fewer contractual restraints will be *restrictions on competition.*

Article 81(1) EC prohibits agreements which either by *object* or *effect* prevent, restrict or distort competition.

Under the new methodology, the prohibition of licensing agreements with anticompetitive *objects* under Article 81(1) EC are still exemplified by the provisions listed as hard core restrictions in Article 4 of the TTBER. However, the concept of a hard core restriction under Article 4 has changed from that of the blacklisted provisions in the 1996 TTBER. Formerly the test whether the provision was restrictive in nature was elaborately defined and this resulted in seven blacklisted restrictions. Now the test has been modified so that it also asks whether the restriction so likely to lead to anti-competitive harm that detailed economic analysis of effects is required.[45] In consequence, the hard core restrictions are now limited to price fixing, output limitations and market allocation, and do not extend to territorial restrictions and sales restrictions. These latter provisions are now classified as exceptions to hard core restrictions in Article 4 which indicates that they are not anticompetitive in their object and are now left to be evaluated mainly on the basis of their economic effects. The beneficiaries of this analysis are agreements between non-competitors and non-reciprocal agreements between competitors.

[45] Guidelines to Application of Article 81(3). Cf. TTBER Guidelines para 75. ". . . based on the nature of the restriction and experience showing that such restrictions are almost always anti-competitive."

Under the new framework, if an agreement (or a restriction within it) is not restrictive of competition by its object, there is still a need to assess whether in fact it has the *effect* of restricting competition This assessment has more of an economic dimension

There are three highlights of this new test of effects:

1. *First, in order to determine whether or not an agreement (or a restriction within it) has the economic effect of restricting competition, much will depend on whether the licensor and licensee were competitors or non-competitors before the contract was made.*[46] *Thus, as Guideline 12(a) asks, does the license agreement restrict actual or potential competition that would have existed without the contemplated agreement?* And, as Guideline 12(b) asks, does the agreement restrict actual or potential competition that would have existed *in the absence of the contractual restraint(s)?*
2. *Secondly, the test of effects will be radically different for agreements between non- competitors and those between competitors.*
3. *Thirdly, the test of economic effect of restricting competition will apply both to competition between licensor and licensee (inter-technology competition) and competition between different licensees of the same technology in different territories (intra-technology competition)*

2.1. *Licensing agreements between non-competitors*

a. *Inter-technology competition*

In the case of agreements between non-competitors, by definition there is no inter-technological competition either actual or potential at the start of the agreement. Hence unless the market power of the licensee threatens consumer harm through foreclosure of competition, the agreement itself will not restrict inter-technological competition.[47]

In such a case, the test will go on to concentrate on whether *any provision* within the licensing agreement is a *restriction of competition* by effect.

Where a licensing agreement is made between non-competitors, whether actual or potential, many restrictions on the conduct of licensor and licensee

[46] The Guidelines indicate that the agreement must affect actual and potential competition to such an extent that on the relevant market negative effects on product , innovation or variety of goods and services can be expected with a reasonable degree of probability. These effects must be *appreciable*, i.e. not *insignificant* (*Guidelines to Article 81(3) EC* para. 24)“ The assessment of the effects of a license agreement must be made on the basis of a proper market analysis . The burden of proof that an agreement restricts competition will be on the Commission or competition authority.

[47] The new methodology assumes that market shares are a proxy for market power. It provides a first safe haven at 30%, a second safe haven with four other poles of competition, below dominance and dominance as meaningful stages of market power for the purpose of the Guidelines. The methods of foreclosure of competitors have been described as raising costs, restricting access or otherwise raising barriers to entry. (*Guidelines* para .141.)

inter se in the licensing agreement will not constitute a restriction of competition under the new framework.[48]

For example, many non-territorial clauses between licensors and licensees will be regarded as *ancillary restraints, i.e. objectively necessary or indispensable,* and therefore "almost always *not* restrictive of competition within the meaning of Article 81(1)." [49]

Some examples of such restrictions are those which are indispensable to achieving the main purpose of the licensing agreement. These include:

(a) confidentiality obligations,
(b) obligations on licensees not to sub-licence,
(c) obligations not to use the licensed technology after the expiry of the agreement, provided that the licensed technology remains valid and in force,
(d) obligations to assist the licensor in enforcing the licensed intellectual property rights,
(e) obligations to pay minimum royalties or to produce a minimum quantity of products incorporating the licensed technology, and
(f) obligations to use the licensor's trade mark or indicate the name of the licensor on the product.

Moreover, certain territorial restrictions *as between licensor and licensee* can be viewed as not *restrictive of competition* under Article 81(1) EC by a similar process of reasoning.

Where a licensor offers a sole and exclusive license to the licensee, if the parties were not competitors before the contract was made, a pure obligation on the licensor not to appoint another licensee in the territory or not to itself exploit the licensed product in the territory might be *restrictions* but they would not be *restrictions on competition* for the purpose of Article 81(1) EC.[50]

A similar analysis can be performed for contractual restraints such as field of use restrictions. What is important to note here is that the new methodology recognises that the IP owner can sub divide its powers of exploitation by contractual restriction and not be caught by Article 81(1) EC under the analysis of restriction on competition rather than the "scope of the patent" or "limited license" doctrines which stem from IP law. In sum, in the case of

[48] However, one cannot argue that all provisions within a contract between non-competitors will not have a competitive effect. A clause in a licensee's contract that obligates him or her not to directly sell into the territory of another licensee would be one example.

[49] Para. 155. *Confer*, *Article 81(3) EC Guidelines* para. 29. It is useful to revive the distinction between non-restrictive and exemptible clauses in licensing agreements. The white lists in previous regulations tended to combine contractual restraints not caught by Article 81(1) EC with those that were so caught but nevertheless exempted in a single white list of clauses. For parties engaged in self-certification today it is wise to make such distinctions clearer.

[50] The *Guidelines* are more cautious "For instance, territorial restraints in an agreement between non-competitors may fall outside Article 81(1) for a certain duration, if the restraints are objectively necessary for a licensee to penetrate a new market."

agreements between non-competitors, the new methodology gives a wide scope for contractual restrictions *between licensor and licensee* not to be caught by Article 81(1) EC in the first place.

b. Intra-technology competition

The second process of competition that is relevant for Article 81(1) EC is the process of intra-technology competition, normally the competition that can exist *between different licensees* producing the same product.[51]

Under EC law, since the *Consten and Grundig* case,[52] there have been specific competition concerns with restrictions on intra-technology competition such as provisions placing obligations on licensees not to sell directly into the territories of other licensees. From the Commission's point of view since such obligations are viewed as restricting the potential competition that could have existed between the licensees in different territories in the absence of such obligations, they are regarded as a restriction of competition for the purposes of Article 81(1) EC. A more universal example of restrictions on intra-technology competition would be a price restraint placed on all licensees by a licensor.[53] In so far, as a licensing agreement between non-competitors contains a restriction on intra-technology competition, it will be necessary to resort to the analysis under Article 81(3) EC to decide whether such restrictions of competition in the licensing agreement are acceptable under Article 81 EC as a whole.

For example, an obligation placed by the licensor upon the licensee not to sell directly into the territory of another licensee will be caught by Article 81(1) EC because it restricts intra-technological competition but will be exemptible under the TTBER in respect of *active* sales for the duration of the contract and in respect of *passive* sales for two years. This shows a particularly improved understanding of the need to encourage investment in IP licensing in because every licensee gets protection against rivals licensees and the licensor itself for a minimum of two years from the time it first markets the product in its territory. The thinking is that the licensee gets an initial period to tool up to match the efficiencies of production of its rivals. In previous BERs there was no such guaranty because the period of five years of allowed protection against passive sales in any one territory was dependent on the time left after the product was put on the market by any licensees. Hence "second" and "third wave" licensees could end up with less than two years protection which might discourage investment at that stage and hence inhibit further diffusion of the technology throughout the single market.

[51] See in this respect e.g. Joined Cases 56/64 and 58/64 *Consten and Grundig* v. *Commission* [1966] ECR 299.

[52] See above.

[53] See TTBER Article 4(2)

Even if the market shares of the licensee exceeds 30% and the two years of the TTBER do not automatically apply, the factual analysis of the indispensability licensee's need for such protection could lead to a two year period of protection, or, in the case of particularly complex and expensive technologies, possibly an even longer period of protection for licensees applying the benefit/harms balance of Article 81(3) EC. In other words, even outside the TTBER, Article 81(3) EC offers a relatively benign treatment of licensing agreements between non-competitors. First it asks whether there will be any pro-competitive benefits arising from the provision; whether the benefits were objectively necessary [or indispensable] to achieve those benefits and whether or not there is a risk that competition in the market would be eliminated. Note that the condition is that there is a risk that competition is eliminated and not merely reduced.

One feature of the new framework which needs careful attention is the assessment of competition between licensor and licensee outside the safe harbour of the TTBER. The TTBER itself offers a special *ex ante* treatment of the status of the contractual relationship within the safe harbour for the purpose of applying the hard core restrictions in Article 4(3). This provision was a concession made by the Commission during the course of the final draft and it constitutes special recognition of the dynamic aspects of technology licensing.[54] In principle, once outside the TTBER, a re-assessment must be made *at that stage* whether the agreement is one between competitors or non-competitor. To what extent does the *ex ante* analysis of Article 4(3) continue outside the scope of the safe harbour of the TTBER?

In the General Framework for the Application of Article 81 EC, the Guidelines specifically mention a case where the parties become competitors subsequent to the conclusion of the agreement because the licensee develops and starts exploiting a competing technology.[55] They state that it must be taken into account that the parties were non-competitors at the time the agreement was made and that the Commission will therefore mainly focus on the impact of the agreement on the licensee's ability to exploit its own (competing) technology and the hard core restrictions will continue to apply to the parties as if they are non-competitors unless the agreement itself is materially amended after the parties have become competitors. If the re-assessment is made in this way it should take sufficient account of the inherent dynamic of the licensing relationship, i.e., the fact that almost every IP license creates potential technological competition after the licensee has mastered the technology but while the contract remains in existence. But for the agreement,

[54] The Commission has also pointed out that Article 4(3) will apply even if the licensees and licensors become actual competitors at a later date because "the licensee starts licensing out his technology or the licensor becomes an actual or potential supplier of products on the relevant market".

[55] See *TT Guidelines* para. 31.

the licensee now would have the capacity to compete using the same technology or possible a competing technology.

Since the technology is inevitably transferred at the early stages of the contract, licensors view as an indispensable inducement to give an *exclusive* license of its technology the assurance of a return for the period of the contract. That is why the licensor inserts a minimum royalties clause. Moreover, that is also why it inserts a non-compete clause *in respect of the technology transferred.* The non-compete clause in respect of *inter-technological* competition between the parties at the start of the contract cannot limit the licensee's independent development of its own R&D or interfere with its exploitation unless that might lead to an exposure of the licensor's know how. In practice, some limits can be placed on the exploitation of the licensee's R&D during the period of the contract owing to the incidental effect of legitimate minimum royalties clauses.

What must be guarded against by the competition authorities is the drafting of competition rules that allow licensees opportunistically to use them as a device to opt out of a contractual commitment when they are ready to do so. If the new legal framework were to have this effect, this would cause investors either to think twice about investing new technology within the EU or insist on a premium rate upfront as a guaranty. In either case the effect of the competition rules would be to chill investment in IP licensing into the EU and limit the diffusion of technology transfer.

The Guidelines seem to offer a reassurance that this will not happen by conceding that the determination of the status of the parties as competitors or non-competitors will take adequate account of the *ex ante* relationship. Even though the re-assessment must be made at the time the agreement falls outside the safe harbour of the TTBER and in that sense is *ex post,* it seems that in principle the Commission accepts that a legitimate contractual non-compete clause can continue to operate as a block on potential competition between licensor and licensee during the course of the agreement unless the contract itself is materially altered.[56]

2.2. Licensing agreements between competitors

The treatment of licensing agreements between competitors is on the face of it much harsher than agreements between non-competitors. At the Article 81(1) level, there will be more restrictions by object and there will be little argument that many other territorial restrictions in the agreement can be said not to be restrictions of inter-technology competition. The longer list of hard core restrictions is accompanied by lower market share thresholds of 20%.

[56] Further evidence of non-competitor status during the course of the contract will be offered by the licensee's use of the licensor's trade mark.

Access to the safe harbour of the TTBER is clearly less open to licensing agreements between competitors.

Yet, it is wrong to conclude that the competition authorities are entirely hostile to licensing agreements between competitors. The Commission has clearly felt that it had inadequate knowledge and experience of the permutations of pro-competitive licensing agreements between competitors to regulate them in the TTBER with the light touch approach they used to regulate licensing agreements between non-competitors. Moreover, the Commission was only too aware that this type of agreement is the source of the most serious risks of anti-competitive licensing agreements even if that was true only in a minority of cases. As a consequence, the Commission has left the application of the full range of Article 81(3) EC to such agreements to the second tier of the Guidelines.

Moreover, there are important concessions to this tighter approach to licensing agreements between competitors. One such is the creation of the special category of *non- reciprocal* licensing agreements between competitors.[57] Both within and outside the TTBER they are treated as honorary agreements between non-competitors. [58]

The application of Article 81(3) EC is to licensing agreements between competitors is further ameliorated outside the TTBER and above the 20% market share by a "second safe harbour" where there are at least four other poles of independently controlled technologies and no hard core restrictions in the licensing agreement.[59]

However, under the new methodology, licensing agreements between competitors are generally more easily caught by Article 81(1) EC because restrictions, even ancillary restrictions are usually *restrictions of competition* under Article 81(1) EC and the permitted scope for provisions is carefully regulated by Article 4(1) of TTBER.

However, even if a licensing agreement between competitors is reciprocal and its contents or market share take it outside the TTBER, the legal status of the agreement must be assessed on the issue of the balancing test of the four conditions of Article 81(3) EC. At this point there will be a need to argue both that the provision contributes significant pro-competitive benefits and that those benefits could not be obtained by a less restrictive provision particularly one that was not restrictive by object. This indispensability test will not require a fine tooth comb and will not place the Commission in the position of pointing to less restrictive alternatives. Nevertheless, in practice, as the

[57] See definitions in TTBER Article 1(1)(c) and (d). Are the parties cross licensing competing technologies or technologies which can be used to produce competing products? See too the special position of one way or two way blocking patents (*TT Guidelines* para. 32) and "drastic innovations (*TT Guidelines* para. 33).

[58] A similar more lenient treatment is given to reciprocal agreements between competitors where a restriction on output is imposed only on one of the licensees. See e.g. Article 4 (1) (b).

[59] *TT Guidelines* para. 131.

Commission reminds us, it is only exceptionally that the hard core restriction will fill the four conditions of Article 81(3) EC and in particular its indispensability condition. However, there is a possibility for the parties to justify their licensing agreements between competitors under Article 81(3) EC outside the safe harbour of the TTBER. This is a major change from the old legal framework. Today, licensing agreements between competitors which fall outside the comfort zone of the BER owing to a hard core restriction in the agreement may still obtain exemption under the balancing provisions of Article 81(3) EC if their pro-competitive effects outweigh their anti-competitive effects. The hard core restrictions, unlike the blacklists of the 1996 BER do not deliver a knock out blow to exemption. As the Commission states in its Guidelines, ". . . even license agreements that do restrict competition may often give rise to pro-competitive efficiencies, which must be considered under Article 81(3) EC and balanced against the negative effects on competition."[60]

Of course this exercise will be more demanding for lawyers than the application of Article 81(3) EC to agreements between non-competitors. The definition of the relevant market will be important. The factors mentioned in para 132 of the Guidelines will be relevant to the analysis. Further, the Commission's Notice on the Guidelines to Article 81(3) EC will be useful to consult to obtain a clear view of the application of Article 81(3) EC to IP licensing agreements. It will be necessary to understand the type of pro-competitive benefits that can be contributed by a commercial licensing agreement. It will necessary to understand the types of competitive harms that can be caused by licensing agreements. However, this extra effort may prove to be worth while since the framework and methodology provided by the Guidelines may prove to have a longer life as a method of regulation of technology transfers than the TTBER itself.

D. Conclusions

The Commission's awareness of the pro-competitive and pro-innovative features of IP licensing, has resulted in some special treatment but the main form of accommodation of the licensing of IPRs has taken place under the "harmonised" general doctrines of Article 81 EC as part of the modernisation programme. To establish in fact whether or not the new type of legal framework has discouraged licensing into Europe and replaced it with technology transfers and production of new technology products elsewhere leaving Europe with only the distribution of the technological products would require

[60] See *TT Guidelines* para. 9.

empirical analysis. However as an *a priori* assessment of the Commission's new methodology it is possible to point to a number of accommodations that have been made. The great gain is the achievement of separating the real "verticals" from the real "horizontals," providing enlightened definitions of each and providing a more lenient treatment of the former. Secondly, the fact that the careful *ex ante* treatment of the competitive relationship between licensor and licensee carries over outside the safe harbour of the TTBER signals a sensitivity to the dynamics of technology licensing by the competition authorities.

These developments are consistent with the new application of Article 81 and go a long way towards offering a framework of regulation that recognises the special needs of IP licensing. In particular, they give greater recognition to the real disincentives, or in the new vocabulary the "hold ups", to the parties entering into licensing agreements. In terms of the substantive rules of the new legal framework, competition law seems to offer a workable framework to allow technology transfer to achieve its due pro-competitive potential. [61]

The main costs of this change in regulatory approach, from a formalistic legal framework to one that is more economic in approach, will be the costs of educating legal advisers to incorporate a greater element of economics in their legal advice. That may be the price that has to be paid for a move to a less arbitrary substantive set of legal rules in this sphere.

It cannot have escaped attention that the greater economic content of the new paradigm for Article 81 EC has produced considerable convergence with that in the US. This is certainly evidence of a recognition that on the issue of competition analysis of vertical agreements in general and licensing agreements in particular, the US approach offers a useful legal framework. It does not mean however that a similar convergence in respect of Article 82 EC and mergers will necessarily be in the EU's best interest.

[61] See *TT Guidelines* para. 17.

SESSION TWO

SELECTED PROBLEM AREAS
1

PANEL DISCUSSION

PARTICIPANTS:

Alden Abbott
Allan Fels
Douglas Melamed
Erns-Joachim Mestmäcker
Frédéric Jenny
Giuliano Amato
Gustavo Ghidini
Hanns Ullrich
Hewitt Pate
Ian Forrester
James Venit
Lars Kjøelbye
Luc Peeperkorn
Patrick Rey
Peter Plompen
Rafael Allendesalazar Corcho
Rochelle Dreyfuss
Thomas Vinje

Session III: Selected Problem Areas

Panel III: Patent Pools

► Giuliano Amato—This session gives us the opportunity to go beyond the general-level debate that took place this morning on the adequate sharing of responsibilities between regulators and antitrust agencies in the IP area. Indeed, patent pools and collecting societies are a form of regulation—self-regulation in particular—that appeared in order to overcome some of the problems we discussed this morning. Patent pools fall under the scope of antitrust law in so far as constituting agreements in the sense of Article 81(1) EC; the question is whether they are horizontal or vertical agreements. In this area, we encounter the typical questions that antitrust authorities have to deal with. In short, patent pools are "admissible" under antitrust law as long as the patents are essential and complementary. The question is, when are patents complementary, and when are they substitutes? Those who point to the risk of collusive behaviour through cross-licensing will have a say here. All of us know cases where a patent pool was covering a *de facto* collusive horizontal agreement. So, on the one side, patent pools are essential to innovation, and on the other side, they may hide collusive behaviour.

► Douglas Melamed—Patent pools offer packages of patents to multiple licensees, and in this respect they are similar to joint ventures. The traditional US approach to patent pools is very straightforward: if there are multiple patentees owning between them patents that are substitutes for one another, then inclusion of their patents in a package raises price-fixing issues. If, on the other hand, all the patents in the pool are essential for the purpose for which they are licensed, either technically or practically (i.e., there are no other practical, viable alternatives), then their assembly into a package is thought of as a sort of "safe harbour".

The benefits of creating a pool are broadly accepted: first of all, pools economize on transaction costs by bringing together complementary technologies and permitting one-stop shopping; and second, if all patents are essential, the pool avoids the double marginalization risk, i.e., when each patentee licenses its own patents, the total price of all the patents will be sub-optimal by comparison to combined licensing. In between the two situations I mentioned at the outset there is the case of patents that are complements for one another, but which are not essential. Here the danger of pooling is similar to that of any kind of bundling or mandatory tying arrangement, namely that kind of package license, if in order to get the licence he wants the licensee must take the whole package, the effect is to exclude, or at least make more difficult, the licensing of alternative or substitutes, outside the package. This kind of package license would be analysed like any other ordinary tying or bundling arrangement, and the antitrust enforcer would make use of the leverage theory. In a nutshell, this theory states that the patentee owning the truly essential blocking patent, instead of simply maximising his royalty for the licensing of that patent, uses that market power in order to oblige the licensee to license a non-essential patent for which there may be alternatives.

A few words about essentiality: the first question is, essential for what? Normally, essentiality refers to the standard that the licensee is seeking to implement. The analysis typically treats the standard as exogenous. Next, the question is: how is the standard promulgated? If it is promulgated in a way so as to make essential a technology that probably was not necessary in order to achieve the sought functionality, then the standard itself, could have an anticompetitive effect. The standard might, for example, not be exogenous to the licensing; it might instead be a means of obtaining through a standard the anti-competitive or average benefits that might be achieved by a package license. This is a standard-setting rather than an IP law issue, but it is a huge problem in the US, and probably also elsewhere.

But there is an alternative, non-conventional way of looking at the paradigm of exogenous standards, and complementary but not essential patents. This morning I said that I see no conceptual reason why IP should be different from other property. I want to modify that remark. I think that actually there is a difference, in that patents are profoundly and deliberately uncertain: even when one obtains a patent, one does not know if and for what exactly it is valid. Statistics show that, in the US at least, among those patents that are litigated, about 50% are found not to be valid. And even if you have a valid patent, you do not know what the exact scope is. About 33% of US District Court patent cases decisions construing patent classes are reversed on appeal. This is deliberate in US patent policy, because we do not want to spend the time and resources to resolve *a priori* all of these issues for all patent applications, some of which have little or no commercial significance. At any rate, this uncertainty is a characteristic that I do not think exists anywhere else in antitrust or property law. For instance, I do not know of a merger case where there is uncertainty about who owns the factory. But uncertainty about whether one has a patent right, and what it covers, is pervasive.

How does this affect the antitrust analysis of patent pools? Patent pools do not ordinarily require the licensees to use all patents, but simply give them a right to do so. Imagine you assemble a pool of patents and then go to a manufacturer asking him to invest in licensing, gearing up a production plant, getting a marketing operation going. The manufacturer might ask: “How do I know that I have all the patents I need? Will the patentees involved in the pool assure me that I am not going to be sued in the future for using other patents? I might only be interested in 2 or 3 of the offered patents, which are essential, and I do not want to be sued in a few years for using another patent outside the pool.” So, in order to achieve the efficiency-enhancing purposes of the patent pool, there is a strong incentive to have a licence that casts a wide net of patents, so as not to risk needing an external patent later in order to implement the standard. In effect, the pool provides insurance against overlooking an essential patent.

Thus, if the pool is to be successful, the licence will have to be broader than the patents which are thought to be essential at the moment of contracting. Here, the conventional thinking that the patent needs to be essential in order to be included in the pool may create a potential tension between the risk of antitrust liability when one gives a broad licence and the interest in promoting technology, which would call for a much broader package of patents, some of which are uncertain to be essential at the moment of contracting. This does not mean that there are no competitive concerns: the exclusion of alternative technologies is a real risk. It seems to me that the way to reconcile this is to understand that, unlike in the case of other tying and bundling arrangements, there is no obligation to use the whole package. There are two questions to ask. First, is there reason to believe that there is an alternative technology that is excluded? If so, is there a practical way to remove the relevant patent from the pool? The latter will depend in part on whether the price of the pool was altered because of the inclusion of that patent. In other words, the antitrust enforcer must first satisfy itself on the facts that there really is a case of foreclosure, and second, find the practical remedy – in other words, find a suitable mechanism to adjust the royalty so to avoid the competitive harm while at the same time not undermining the benefits offered by the pool.

► Lars Kjølbye—I would start by noting that the EU antitrust approach to patent pools is very close to what has just been described, the reason being that we apply a similar analytical framework. We have a consistent approach to technology licensing, including patent pools. The section in the TT Guidelines[1] on patent pools must be read in the general context of the TTBER[2] and the Guidelines on the application of Article 81(3) EC.[3] This allows us to deal with the issue mentioned by Mr Melamed before, namely, what happens if after licensing one discovers that some technology not essential inside the pool is substitutable with one outside the pool? Should we be harsh and decide that the substitute must be taken out of the pool, or take a more flexible approach, analysing if there is real foreclosure? My personal view is that we should adopt the latter approach, applying the basic analytical framework under Article 81(1) EC. Mr Melamed rightfully said that whether something is essential or not is often a question that is to be decided in time. It is also true that

[1] European Commission (2004): *Guidelines on the application of Article 81 of the EC Treaty to technology transfer agreements*, OJ C 101 [2004].

[2] *Commission Regulation (EC) No 772l2004 of 27 April 2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements* , OJ L 123 [2004].

[3] European Commission (2001): *Guidelines on the applicability of Article 81 of the EC Treaty to horizontal cooperation agreements*, OJ C 3 [2001].

qualifying something as essential technology for making a certain product is not necessarily decisive in itself. The decisive element is the likelihood of market foreclosure. This is important to consider when analysing whether there are substitutes inside or outside the pool, as well as in deciding whether to take it out of the pool, as this may bring about additional costs for someone who wants to use it and has already bought the package.

Coming back to the TT Guidelines, I would like to say a few words about the EC notion of substitute technology. There are many factors to take into account here, beyond technical substitutability. It may be for legal reasons, i.e., that the patents are blocking substitutability, that you do not need to know whether in practice there is technical substitutability or not. It may also be for economic reasons that one technology is not really viable, and if so it is not considered a substitute. Moveover, as stated in the Guidelines, if two technologies in the absence of the pool are both likely to be demanded by licensees, they are not substitutes. If after such analysis we establish that there are lots of substitutes within the pool, then there is a problem, because it starts looking like a cartel. But there may be cases where there are a limited number of substitutes, or a lot of uncertainly, and in my view in such cases these technologies should not be ejected from the pool. Where there are substitutes outside the pool, you need to do a real foreclosure analysis. The Guidelines indicate that, generally, where a pool has a significant market position it is likely that Article 81(1) EC applies, because technologies outside the pool may find it difficult to enter the market. But as I mentioned before, this analysis needs to be followed up by another, under the Guidelines on the application of Article 81(3) EC. We need to look at the significance of the technology inside the pool that excludes outside competition.

► Peter Plompen—The patent pool chapter in the TT Guidelines resolves an issue that has been there for some time, related to the fact that in most industries the number of patents issued is growing considerably, and most of these patents cover components of an overall technology. Think for example of DVDs: there are literally hundreds of patents involved, owned by at least 9 major companies, each holding a component that is important for the product to be developed further, so bringing together these technologies in one pool so as to allow standardized production is important.

The concept of technology as a component has an important consequence: when looking at the pro- and anti-competitive effects of a pool, one should also take into account whether there is an alternative to the licensed product, and whether the component technology is usable only for the licensed product, or whether it also has other applications. For instance, many of the technologies involved in the production of DVDs are also employed in other contexts. Therefore, when discussing whether patents in the pool are essential, non-essential, or have substitutes, it is important to keep in mind that these definitions refer to the licensed product, and it is dangerous to talk about consequences of there being an alternative. This is because, from what we heard so far, it is easy to be tempted to believe that, once an alternative is found for a patent in the pool, that technology can be eliminated from the pool, without investigating the actual foreclosure effects of that component on the total market. This is why I am happy that the TT Guidelines specify that the problem of foreclosure is related to the whole market interested, and not to the specific licence involved.

The tests to distinguish the "innocent" pools from the anticompetitive ones were very much developed in the US. The concept of essentiality came up as a way to ensure that there are no competitive concerns, at least between the parties creating the pool. As already mentioned, the concept of essentiality is not identical to the letter in the US and the TT Guidelines. In Europe, the TT Guidelines establish that a patent is essential if there are no alternatives inside or outside the pool. The problem is, one would agree easily on essentiality inside the pool, but is it also valid if there are no alternatives outside the pool? Here I disagree with the position taken in the TT Guidelines, according to which, whenever there is an alternative outside the pool, the patent is no longer essential. I think that a distinction should be made between patents that I call "essential by definition", and patents that are essential for other reasons. I think that the US approach is closer to my concept of "essential by definition", i.e., essentiality is established if the text of the patent claim on the one hand and the text of standard specifications on the other hand literally overlap.

Then there are other types of patents that are deemed to be essential, which are the ones needed in order to produce the licensed product. Here the test is either economic or commercial. Looking at the case law in both Europe and the US (for example, the *MPEG-2* Business Review Letter[4]), one encounters standard specification references that are rather abstract, like algorithms or software. If you look at things deemed essential in the context of CDs or DVDs, for example, the package of patents is not only describing the parameters of the disk, but also sometimes some quality aspects of the products. The first part cannot be done in another way, because that is the way the product is defined, but this is the result of a choice: in setting standard specifications, you are always making choices – which should also be tested from an antitrust point of view, because the setting of the standard can be abused as well. Antitrust issues related to standard-setting have surfaced both in the EU and in the US.[5]

[4] See the US Department of Justice's Press Release of 26 June 1997, available at http://www.usdoj.gov/ opa/pr/1997/June97/267at.htm.

[5] The Commission's Guidelines on the applicability of Article 81 EC to horizontal agreements (OJ C 3 [2001]) deal with standard setting in the context of Article 81 EC at paras. 170, 172 and 174-175. The TT Guidelines, at para. 225, state that firms normally should be allowed to negotiate royalty rates before a standard setting effort, as well as after a standard is set. In the US, the legal status of negotiations over price before standard setting is still unclear. Some standards development organizations have reported to the US Department of Justice that they currently

I suggest we leave out from antitrust analysis on foreclosure all the so-called "essential by definition" patents, except if there are developments in time changing the context of the choice that was made. In that case, the next step is to look at foreclosure on the whole relevant market, and not only to foreclosure of the pool as a distribution of that component (because there may be alternative ways of distributing the component).

To conclude, the TT Guidelines go a long way in accommodating solutions for these issues, but still, further refinement is necessary on the concept of practical essentiality and essentiality by definition.

► Hanns Ullrich—Since Mr Melamed was trying to push the argument in favour of the pools, and the Commission is sort of taking the middle ground, my role is to push the pools back to patent law and out of competition law, the reason being that the latter is doing a very poor job in this area, which is essentially one of patent law. To do so, I must be critical of the TT Guidelines. I will start, like the Commission, with very broad arguments, although what I have in mind is a very limited type of pool – not in biotechnology, but in information technology, because this is where there are already a number of US decisions and a few informal Commission decisions.

In the TT Guidelines we encounter a framework for assessing pools on different layers: the pool as such, effects on competition, licensing rules – all trying to minimize the restrictive effects of pools. All this seems alright, but if you have a closer look, you notice an approach that is otherwise typical of the Commission in all areas of IP, namely that for pools too there is reference to the TTBER, although it is very likely that pools exceed the established market shares. Then the Guidelines apply anyway, although of course in the case of pools it is not bilateral relationships we are talking about, but multilateral licensing. The TT Guidelines are actually a one-to-one copy of the US approach in this field. My proposal is to look at whether the original is good, and if the copy is as good as the original.

Actually, the Commission is extending the US approach. The US Guidelines[6] talk about standardized pools in relation to patents, but the Commission is extending this approach to any IP rights, including copyright. Now, copyright is by definition an area where you never have an exclusive right, because copyright does not protect/cover the technological contents of the pool. If, due to an extended concept of copyright protection, it covers the contents, one can still get around this by reverse engineering, which is feasible, but a matter of costs. So the TT Guidelines extend the test of essentiality

avoid any discussion of actual royalty rates, due in part to fear of antitrust liability, in view of the judgment pronounced in *Sony Electronics, Inc. v. Soundview Technologies, Inc.*, 157 F. Supp. 2d 180 (D. Conn. 2001). For further details, see Hewitt Pate's written contribution to this volume.

[6] US Department of Justice and FTC (1996): *Antitrust Guidelines for the Licensing of Intellectual Property,* text available at http://www.usdoj.gov/atr/public/guidelines/0558.htm.

from the exclusivity to the question of whether it is economically feasible or not. Similarly, the TT Guidelines extend the concept by not focusing only on standardization, but also on other areas. But once you are in the area of standardization pools, the entire test of essentiality becomes doubtful. Here you have the question of what is the relationship between the substitute technology and the essential technology by reference to other pools and technologies, and the more of the latter you have, the less meaningful the test becomes. The Commission constructed an argument for large pools, seeking to cover everything. Now, what the Commission proposes as "mitigating factors" (such as non-discrimination) will not be of great practical help. How are you going to have non-discrimination when you have pool members joining in all their technologies, and others may need licences to be admitted in the pool in the first place? The argument is that, because they joined forces, they will have an anticompetitive advantage. Now, why should they give an advantage to competitors when they are entering with third parties into licensing contracts?

Think then about grant-back licensing, which should be non-exclusive. Does it matter whether it is exclusive or not? The grant-backs enhance the power of the inner circle in the pool, and contribute to the pool growing – as empirical studies have shown, they all do in practice. But the Commission is not really concerned with whether the pool grows or not; it is concerned with relatively large pools only. The problem is that when you favour pools to this extent, there is an effect on innovation and the patent system. The effect is to develop technologies which fit into pools, rather than technologies that you can own independently. Therefore my question is: if you apply equal treatment because all pools acquire market power, why should we not apply equal treatment right from the beginning, and open the pool for everybody, and not just give them the power to license third parties?

Why are the Commission's criteria copied from the American system? One reason is the desire not to submit large companies to different standards of antitrust control. Second, the Commission is using the American tests of essentiality, complementarity and substitutability, and so to speak, shortcuts for a test of indispensability under Article 81(3) EC. The real test of indispensability is whether there is proportionality between the restriction of competition and the contribution to technological progress. This test is transposed into Article 81(1) EC by a sort of trade-off, whereby only the necessary patents are kept, while all others are referred back to the general procedures. This is fine as long as you can show that the beneficial effect, including savings in transaction costs, would always be there. But if you look at real cases, there was only one major case (*MPEG-2*)[7] with a large number of patents and patentees where from eight thousand relevant patents only 20 were essential. In other cases, you have a limited number of patents, and if you check the

[7] See *supra* n. 4.

websites of these companies, you realize that their business is to sell licences systematically on standardized terms. Here the question is: what are the transaction costs savings?

What then are the real problems behind the pools? One is the blocking situation in the case of complementarity, which is not between the members of the pool alone, but involves upstream and downstream patents, and as a patentee you want to make sure you had a free choice as to whom you wanted to select to enter the pool. The second problem is one of clearing the essential patents. If it is only a clearing problem, the question is, why pooling? The indispensability test would indicate it is enough if you clear. The clearing problems can be solved in two ways: one is to apply antitrust law and give everybody who found a patent need a claim to the licence. This would not work in the EU system, but would work under national laws. There is a drawback and an advantage to this: the drawback is that you have to rely on private parties to bring lawsuits, and the advantage is that the technologies will be truly valuated on the market, because people bring a lawsuit only when it is worthwhile. The other way is to deal with the problem in patent law, which by definition cuts the technology into lots of small pieces which then have to be put together. The problem with this approach to patent pools, as well as to collecting societies, is that when you have exclusivity there will be a compensation scheme, because once you put it into the pool you are obliged to serve everybody. If you have a compensation scheme, you no longer assess the patents by reference to market prices, but by reference to what the pool fixes as a price. Most of the time the problem arises not because patent laws are so poor, but because people are overstretching patent laws: the increased number of patents is not the law of nature, but the result of the companies' strategy. If you allow pools to be established easily, then ever more patents will go to the pools. My suggestion is: solve the problem in patent law, via a mechanism which is similar to what we have for compulsory licensing of dependent and improvement patents, extended to complementary technology in general, but limited to this. This is an intermediate way, allowing the interest of the parties to pre-assess on the basis of the relevant market what the real value of the technology is. To prevent parties from submitting to pools, the Commission should have, like the US, a whole prescription system on what a pool should be like, as a regulatory mechanism. This kind of prescription for pools is, however, beyond what antitrust should do.

► Abbott Alden—As the experience of different competition agencies shows, sometimes it is very difficult to know whether patents are complements or substitutes. For some you may not know until after a while, and some patents may have different claims. One word of caution: not to think that the specific Business Review Letter process, requiring a third party to determine what is essential and what is complementary, is sufficient to deem that a pool is illegal or not. Indeed, it may happen that certain pools, where there are some substitutes inside and lots of substitutes outside, create some efficiencies, like in other cases of horizontal agreements. From officials at the Department of Justice I understood that the Business Review Letter process is largely about giving *ex ante* advice and creating possible "safe harbours", and it is not necessarily automatic that pools viewed as faulted by the Business Review Letter will be deemed illegal by the US antitrust agencies.

► Luc Peeperkorn—Prof. Ullrich argued that the TT Guidelines are a copy of the US guidance. I would note that the EU rules deal with essentiality, but also with complementarity, and the latter is the difficult area, as Mr Melamed mentioned before. Second, he argued that if we have essential patents, we should force the pools to be opened to all licensors. I think that is logically not necessary: if patents are essential, then they all need each other, and the pool cannot afford to leave one essential patent out. Therefore, not only for essential patents, but for patent pools in general, where there is dominance, we do require that the pool be open and non-discriminatory, both in terms of access for members and in its exploitation of the package of IP rights to licensees.

► Patrick Rey—Coming back to the issue of substitutes versus complements, I agree the distinction is difficult, and would add that in some cases the problem is "endogenous", meaning that it depends on the interaction between the pool members. Think of two patents on the use of one technology, where the technology can be used with either patent, but it is better used if you combine both. If the price for using both is high, the choice will be for one or the other. If the prices are low, the choice will be to combine the technologies. The good news is that the requirement in the sense that pool members should remain free to license their technology outside the pool is a simple and effective device to ensure that good pools are formed, and the bad ones are either not formed or dealt with by the antitrust enforcer. From this perspective I find that the TT Guidelines are a bit pessimistic with respect to the usefulness of this requirement. Here I wanted to advertise an article by Josh Lerner and Jean Tirole[8] exploring the efficiency of various patent pools.

► Luc Peeperkorn—Just to explain why we are reluctant to believe that this requirement would solve a lot of problems. If you have substitutes inside the pool, then you are banking on someone breaking away from the cartel by licensing independently outside the pool, and that may be a good safety valve, but I think we would go too far in expecting that it will solve much by itself.

[8] Josh Lerner and Jean Tirole (2002): *Efficient Patent Pools*, NBER Working Papers 9175.

▸ Hanns Ullrich: First, with respect to the TT Guidelines on pools: one wonders what is the difference between substitutes and complements in terms of their redeeming effects under Article 81(3) EC. It is always transaction cost savings, but these occur in any case, and the difference between essential and non-essential patents does not make any difference in that respect. There are additional arguments for the application of Article 81(3) EC, such as the fact that the licensee gets the licence and the licensor from the pool gets all the improvements. In terms of benefits, the distinctions made in the TT Guidelines are difficult to understand. It seems to me to be an arbitrary way to get down to the Article 81(3) EC test, but transposed on the level of Article 81(1) EC.

Second, the American approach is the result of an American problem, and is based on an American theory coming from Robert Merges[9] and Carl Shapiro,[10] who wrote about having too many patents and how to get out of the patent thicket. In this work, Shapiro expressly remarks that he is not concerned with the question of whether the US patent system works well or not. This is precisely where we intervene, to ask whether it works properly or not. Mr Melamed's intervention today was an extension of that approach: following Shapiro, he says that patents are uncertain titles, because they are granted in an administrative procedure, and they may be valid or invalid, or may have a different scope. Now, if this was a rationale for patent pools, then France and Italy should be covered by them . . . whereas Germany would be at the opposite end, because we pretend that our patents are valid, enjoy a presumption of validity, and you cannot even raise a patent defence in an infringement suit. I do not see how these differences in the patent system should matter, but they are there.

My real problem is with the insurance argument: again, you invite people to take out patents, even if they are uncertain, because the more uncertain they are, the better the justification for patent pools is. But we have to look into the patent system and see that it works for everybody, across the industry, and not only inside the pools. I think the correct approach is not to detract from this path, but to continue while ensuring that the patent system works correctly. This is why this morning I spoke about the distinction between systemic failures, which need to be corrected, and "man-made", intentional failures. This is the problem in the entire IP field: one has to look into system problems, to sort out what remains for the antitrust law to correct.

[9] See, e.g., Merges R. (2001): "Institutions for Intellectual Property Transactions: The Case of Patent Pools", in Dreyfuss R, Zimmerman D P and First H., eds., *Expanding the Boundaries of Intellectual Property*, Oxford University Press, at 123 *et seq.*

[10] Shapiro C. (2001): "Navigating the Patent Thicket: Cross Licenses, Patent Pools and Standard Setting", in Jaffe A., Leiner J and Stein S., eds., *Innovation Policy and the Economy,* Cambridge, Massachusetts, 119 *et seq.*

► LARS KJØELBYE—On the first point raised by Prof. Ullrich, maybe the argument that from the point of view of efficiencies (in the main, transaction cost savings) even a pool including complements (i.e., there are substitutes outside the pool) may generate transaction cost savings is true, but the essential question is whether there is a restriction of competition under Article 81(1) EC. If the pool is not caught by this provision, you do not need to look at the efficiencies. So the proper question is: if the pool is composed exclusively of essential patents, does it restrict competition that it would have occurred in the absence of the pool? The general answer to that question is no, it is difficult to see how a pool not composed of any substitute elements, and where there are no foreclosure concerns because there are no substitutes outside the pool, can conceivably restrict competition in the first place. We apply the test of restriction of competition devised in the TT Guidelines and the Guidelines on Article 81(3) EC: does the agreement have likely negative effects on competition and consumers? For that to happen, the agreement must make some difference compared to what you had before.

► DOUGLAS MELAMED—Prof. Ullrich stated that transaction costs are achieved, for any kind of pool. That is true if you assume that the identity of the patent which is going to be licensed is unchanged, in which case obviously doing one-stop shopping reduces transaction costs, but if the effect of the pool is to cause the licensee to license a different, or larger combination of patents than what he would have otherwise licensed, then you do not just economize on transaction costs.

Second, Patrick Rey made an interesting point about patents that can be both substitutes and complements. When someone puts forth a hypothetical example like that, I usually wonder whether I can think of another hypothetical example of the kind that does not involve IP. For example, I can think of fuels, where you can blend different ingredients into a fuel, and where the ingredients can be both substitutes and complements. If you can find such a similar example, the conclusion is that there is nothing about the patents that changes the analysis.

► ROCHELLE DREYFUSS—Turning away from the essentiality *versus* non-essentiality argument, I would like to look at the issue from the point of view of the licensee. Let us assume that all the patents in the pool are essential, the pool has a dominant position on the market, and there is a requirement of non-discriminatory licensing, including royalty setting. My question is: who judges if royalties are non-discriminatory? Is it the US or EU antitrust authorities, or maybe an independent expert is called in to judge whether the royalty rates are fair?

▸ Lars Kjølbye—In the EU system, unhappy licensees can file a complaint to the Commission, and we would examine the royalties under Article 81 EC. But there would be no sort of *ex ante* process; this is an *ex post* control based upon the royalties charged by the pool.

▸ Hanns Ullrich—The idea in the US and EU systems is to bring in a neutral expert to sort out the characteristics of the patent (essentiality, substitutability, etc.). The TT Guidelines contain references to an independent expert, on how to preserve the business secrets of the pool, and on arbitration between the members of the pool. Arbitration is then going to decide on royalties. I do not think it is going to work, because how are you going to set the fair price when you are in a dominant position? If there are no alternative price references on the market, then the prices are by necessity arbitrary.

▸ Thomas Vinje—There is no clear answer to your question, but there are two different things to look at. One is, if there is an obligation for non-discriminatory and fair licensing, and you want to enforce that provision, in Europe you need to complain to the Commission or potentially to a national court. The latter may not be entirely satisfactory for the complainant, because the procedures can be rather long, and as to the first, I do not think the Commission is particularly well placed to determine the appropriate royalty rates. Standard-setting organizations have rules that require fair and non-discriminatory licensing, but at least in my experience, I have not seen an agreement that provides for a choice of fora, so one has to identify the fora that have jurisdiction and then go to the national court of choice—which is not easy either.

▸ Hewitt Pate—The discussion about what the US Department of Justice may potentially do is really more interesting than the one about what we really do . . . It would never be the case that a party comes to us to ask for an evaluation on whether a royalty is appropriate. Mr Melamed pointed out to me that in the US system we do not have the concept of an exploitative abuse. As to whether we would approve a pool that has a sort of arbitration or rate-setting system, I suppose we would.

Also, I agree, the only thing that the Business Review Letters reflects is a statement that the arrangement described is not one we would intend to take action against, rather than offering a list of requirements in the absence of which we would find an antitrust violation. We intend to look generally at the structure of pools to see if different interests are fairly represented, but beyond that, the idea that we would establish rates is entirely foreign to our system.

▶ Peter Plompen—My experience at Phillips was that discussions about royalties are always difficult: when people come together to think that a certain product can arrive on the market only though some sort of pool arrangement, the issue for these people is how to get on board support for the standardized product, considering that they have invested in their patents. Normally, it is not sufficient if only members of the pool have an interest in introducing the product, because a pool starts off a network effect, so you need a lot of external sympathies and support. That is to say that, if there are outsiders, normally they would also be competitors, whose products might be hurt or replaced by the product offered by the pool. Now, those existent or potential competitors normally are not prone to engage in the activities that the pool supports, unless it is quite certain that insiders do not have an advantage over the outsiders. This first of all brings about a discussion on what patents to be included in the pool in order to get support for introducing a new standard in the field. Remember that a pool almost never obliges the members not to adopt other technologies. The members must discuss the royalty to be asked against the context of the market at that particular time, also taking into account the need to get support. So, normally, in the absence of dominance at the very beginning, you are working in a very competitive environment, and the royalty is set under normal market conditions. The problem that often arises is: if indeed the product has been successful on the market, after 5–6 years new people start coming on board, and they want to negotiate on royalties. So, the general approach should be that, when the royalty has been set under competitive conditions at the very beginning, it should be allowed to run through the lifetime of the licence. If the market conditions change, this should be reflected in the setting of new royalties – but this is also a market mechanism, it is not for the regulators to do.

▶ Mario Siragusa—On the appropriate level of the royalties, I think we have some precedents in which the ECJ did decide on excessive royalties perceived by copyright societies, on the basis of comparing the French and German level of royalties, and on the basis of the principle that differences in costs are not necessarily to be reflected in differences in the royalties, because costs may sometime reflect inefficiencies. So there is guidance, and therefore I would be more prone to go to a court for the issue of what is an excessive royalty, taking into account the market context and the issue of the sunk costs. I do not see why different standards should be applied; these should be treated as normal excessive pricing cases.

▶ James Venit—Price regulation makes me very nervous if you have a benchmark maybe it is possible, but if you have a unique technology, it will be impossible to determine the royalties. One thing is sure: you cannot determine the adequate royalties *ex ante*; you can only measure *ex post* what has happened with the pool. Has the new product been introduced? How much competition is there between pool members? Has there been innovation? Have prices been decreasing? Have other entrants come into the pool at a subsequent stage? I once represented a defendant in a case where the plaintiff claimed that the royalties were not fair—it was a standardization case—and we were able to point to a lot of indications in the market that there was innovation, etc. I would not be able to judge if the royalty was ideal, but there was at any rate evidence that innovation continued and prices decreased on a regular basis.

▶ Douglas Melamed—From the perspective of an American, this discussion as to whether royalties are too high and whether the government should do something about it is just incomprehensible. Peter Plompen is right: if everybody agrees that patents are like any other kind of property and should be treated the same, then it seems to me one just has to do away with price regulation.

Then, if I understood well, Prof. Ullrich argued that uncertainty problems related to patents should be dealt with in the patent system, because if we allow competition law to step in to deal with uncertainty problems, we create perverse incentives for getting patents. I would doubt that: there is a lot of empirical evidence about incentives that companies have to get patents, and I do not think they have much to do with competition law. They have more to do with assembling patents in order to negotiate cross-licences. As an outsider to the patent world, my sense is that there is a lot of fixing to be done to patent law, at least in the US, but I do not think that that is likely to eliminate the uncertainty problem. Besides, it is a tiny percentage of patents that require deciding the validity and scope. Given this reality, I think we should accept uncertainty as a by-product of the patent system, and then have competition rules that understand the pro-competitive way in which market actors adapt their conduct to take that uncertainty into account.

▶ Lars Kjølbye—First, a clarification: it is true that in the TT Guidelines we indicate as relevant to the analysis whether the pool appointed an independent expert to evaluate certain issues, but these are just relevant factors; they should not be understood as an obligation. The basic test is whether the pool causes likely anticompetitive effects, and it is for the authorities to prove that. From this perspective, it is clearly not sufficient for us to point at the absence of an independent expert. Mr Plompen suggested we should have introduced a concept of essentiality by definition. I am not sure that this brings something extra besides the question of whether in the absence of the pool the technology in question would be demanded by licensees. If a pool is related to a standard, and the standard defines a particular product, and in order to produce the product covered by the standard you need to use a certain technology, then clearly what does not allow you to produce according to the standard is not a substitute.

► Peter Plompen—I agree with Mr Kjøelbye; what I suggest is not making a lot of difference in the Commission's approach to substitutes, but the concept would be helpful in actual practice, because as the rules stand now, you get caught in debates with the authorities and courts about whether the technology is essential or not, and it would be helpful to have an easier test. By the same token, for standardization, if the setting process has been sufficiently open, then this is the end of the analysis.

► Hanns Ullrich—There are royalties which are fixed in terms of a fixed amount of money per item manufactured, and as the process of innovation goes on, the price for the item falls, but the royalty rate remains the same, which eventually cuts the licensee out of the market. Second, I still believe that it makes a difference on the market whether you have a collective group of technologies and you can only buy from this group, or if you have a clearing place where everybody can offer the alternative to what allegedly is essential. This is the difference between the free economy and the welfare economic system. Third, I think we should all agree that pools try to solve problems that come from the patent system, and so Robert Merges is correct: pools and collecting societies are a second-best solution by comparison to what the patent system originally wanted to achieve. We do not have the individual price mechanism, but we do have pools and collecting societies because of transaction costs.

Panel IV: Collecting Societies

▸ Allan Fels—Australia is a net importer of IP, so our perspective tends to be rather that of the IP user, and not of the IP producer. The view in Australia is that patent law has been tilted in favour of producers and exporters in other countries, and this exacerbated the debate I mentioned this morning about parallel imports. In Australia we eventually removed most of the restrictions on parallel imports, and subsequently the competition authority took up a case against record companies which had market power, making parallel imports very difficult.[11] We won this case in court, and interestingly, one of the two record companies involved had a market share of only 20%, but we persuaded the court that this was enough to give it market power.

Australia also introduced IP law provisions into a lot of bilateral trade agreements (not being possible to get them in multilateral trade agreements). There was a review of IP law in relation to competition law, as previously there had been an exemption in the latter for much of IP – in my paper I discussed the extent to which that exemption applied, it is not perhaps as big as one might think, but in any event, the latest review has very largely eliminated special treatment of IP.

In regard to access to essential facilities, Australia enacted quite comprehensive laws regulating access to such facilities, including when the import is essential for the production of an upstream or downstream product, and where there is some kind of monopoly involved. There is a rule about when to give access, but we have explicitly excluded IP from the reach of that law. So it is only when there is an issue of market power that this becomes a problem. Under our competition law, something that is anticompetitive can still be authorized if you can demonstrate sufficient benefit to the public. We dealt with collecting societies under that law. Collecting societies, as you know, license out copyrights in return for royalties which are collected and then given back to the original owners. They also play a role with monitoring what music is played on the radio, or detecting if a work has been copied without authorization.

So, collecting societies have a number of features: first of all, they establish the conditions upon which the author can become a member and hand in some of his work, assigning a copyright to the collecting society. Their output is the licensing arrangements for use of musical works and so on. Then there are distribution arrangements, payment to the owners of the rights, and there are overseas arrangements, establishing what to do with foreign performances and so on.

The collecting societies have come under antitrust scrutiny also in Australia. In my paper I mentioned that there are about 6 or 7 collecting

[11] *Australian Competition and Consumer Commission v. Universal Music Australia Pty Ltd.*, (2001) FCA 1800.

societies in Australia, handling different things like mechanical performance rights, copyrights, graphic performance rights, screen rights, copyright agencies (copying at universities and arrangements for their libraries), visual arts, Christian copyright licensing.

To mention the underlying economic problems related to collecting societies: historically they have been seen as a sort of natural monopoly, the argument being that they feature economies of scale and scope, and produce network externalities (e.g., they offer comprehensive repertoires and the owners want to be part of those). By acting as clearing houses, the collecting societies can reduce certain transaction costs in markets with large numbers of users and owners. Economies of scope relate to the simultaneous enforcement of multiple copyrights by collecting societies monitoring the use of works in the repertoires. There are differences between collecting societies as to whether licences are exclusively assigned or licensed, or how many works are included in a licence, and on how licences are placed and distributed.

► Ernst-Joachim Mestmäcker—In my intervention I will deal with the following issues: the position of collecting societies under EC law; to what extent are collecting societies special; the economics of collective management; and the antitrust issues arising in relation to the acquisition of a repertoire from foreign collecting societies—as dealt with by the Commission in *Simulcasting*[12] a few years ago.

The ECJ established that collecting societies are subject to EC competition rules in so far as they are dominant undertakings (based on their territorial monopoly). At the same time, collecting societies are a valid form of managing IP rights. In a Communication of 2004,[13] the Commission describes the collective management of IP rights as an "economic, cultural and social necessity". This affirmation points to an interface between EC competition policy and regulation that is different from the US compromise established in Consent Decrees such as *ASCAP*[14] and *BMI*[15] half a century ago. Social and cultural objectives are at odds with economic analysis. This dichotomy was forcefully expressed in an EP Resolution of 2004: "The EP notes that the *de jure* and *de facto* monopolies that collecting societies generally enjoy do not in principle impose a problem for competition, provided that they do not impose unreasonable restrictions on their members or on access to rights by prospective clients. The EP recognizes that collecting societies carry out tasks

[12] See Press Release IP/02/1436 of 08 October 2002, Case COMP/C2/38.014 *IFPI Simulcasting*, Commission decision of 8 October 2002, OJ L 107 [2003].

[13] Communication from the Commission to the Council, The European Parliament and the European Economic and Social Committee, *The management of copyrights and neighbouring rights in the internal market*, Brussels 16 April 2004 COM (2004) 261 final.

[14] *US v. ASCAP*, 1950–1951 CCH Trade Cases 62, 595.

[15] *US v. BMI* 1940–1943 CCH Trade Cases 56,096.

in the public interest and in the interest of right holders and users, and therefore require a degree of regulation."[16] Indeed, the interface of regulation and competition law appears to be characteristic in the treatment of collecting societies even in the US: the consent decrees in effect are a regime of regulation. The EP even finds collecting societies to be vehicles of public authority, in so far as they use distribution rules to promote non-commercial, but culturally important, tasks.

This is a daunting reference, because in referring to the public interest tasks of collecting societies, the EP comes very close to arguing for the application of Article 86(2) EC on undertakings charged with services of public interest. This is a politically very controversial field. The ECJ ruled very early that Article 86(2) EC did not apply to collecting societies.[17] The problem is not resolved, however: take the German statute for the administration of copyrights—to which the EP refers—containing a rule according to which distribution rules must provide for special treatment for social and cultural reasons. This is implemented in Germany in the case of the music collecting society *GEMA* by deducting 10% from all fees perceived on performance rights, to be used for social and cultural purposes.

Now, Article 3 of Regulation 1/2003 contains provisions on the supremacy of EC competition law over national competition law. At paragraph 2, this provision stipulates that Member States shall not be precluded from adopting and applying on their territory stricter national laws which prohibit and sanction unilateral anticompetitive conduct. The question to be clarified is whether this provision exempts the deductions for cultural and social purposes from the application of competition rules. We have a much more comprehensive problem here, because German rules on individual refusal to deal are much stricter than Community law. The hope of the Commission that, in permitting Member States to have stricter unilateral rules for unilateral conduct, such rules would never be contrary to the Internal Market, is a rather religious one. This question is relevant for collecting societies as well.

There is another reason why collecting societies are not just profit-maximizing undertakings: in many countries, and in Germany since the early 19th Century, collecting societies are under a legal obligation to administrate all rights offered to them. Consequently, the cross-subsidization of the different kinds of rights the collecting societies get is almost inevitable.

To what extent do EC rules applicable to IP rights modify the rules applicable to collecting societies? We heard today references to free movement of goods and services, and of course in Community law copyrighted works that cross the boundaries will exhaust their protection by being put on the market, but there is a very important difference with respect to freedom

[16] *European Parliament Resolution on a Community Framework for Collective Management Societies in the Field of Copyrights and Neighbouring Rights* (2002/2274) (INI), OJ C 92 E [2004].

[17] Case 127/73 *BRT* v. *SABAM* [1974] ECR 51.

to provide services, which is applicable to the performance rights that collecting societies administer, as there is no equivalent of this exhaustion principle in relation to performance rights. Consequently, since performance rights are territorially delimited, delimitation is maintained under the jurisprudence of the ECJ, and necessarily recognized by the Commission as limiting the applicability of the exercise of performance rights and the right of making available to the public on-line exploitations.

The definitive statement on the justification of collective management of copyrights, and the inapplicability of a *per se* rule is, of course, the US Supreme Court's decision in *BMI v. Columbia,*[18] establishing that the repertoire collecting societies offer is a product different from the individual copyrighted works, and that consequently the *per se* rule against price-fixing and the extension of statutory monopolies to other markets does not apply.

▸ Frédéric Jenny—This morning we discussed whether competition authorities should intervene more in the general area of IP. My argument now is that there may be a case for them to intervene less, at least in Europe, in the area of collecting societies. In France we had a number of cases involving collecting societies, where we followed faithfully the EC case law. I am terribly unhappy about these decisions, and I will explain why.

The *SACEM* case[19] arrived before the *Conseil de la concurrence* because several French courts were dealing with litigation between SACEM and discothèques that claimed to be charged outrageous fees. The plaintiffs had turned first to the European Court of Justice to find out if there could be a case of abuse of dominant position under Article 82 EC.[20] The ECJ found that, if a monopolistic collecting society in one Member State charges much higher fees than similar organizations in other Member States, maybe there is an abuse of dominance. With this decision in hand, the plaintiffs asked the *Conseil de la concurrence* to find out if SACEM was charging more than collecting societies in other Member States. The *Conseil* replied that, in order to do this, it would have to carry out an international investigation, and it did not have authority for that. The complaint was turned to the Commission, which replied by letter that it had performed an investigation, but could not disclose the results. Nevertheless, the report with the outcomes of that investigation was informally attached to that letter . . . and SACEM was indeed charging more than collecting societies in other Member States. We turned this information over to the courts, and the courts managed some sort of mediation whereby the prices were considerably reduced. My problem is

[18] *Broadcast Music Inc. v. Columbia Broadcasting System* 441 US 1,10 (1979).

[19] See *Décision no 2000-D-40 du Conseil de la concurrence en date du 20 septembre 2000 relative à une saisine des sociétés 4 D, Générale de la Ferme et Heiba.*

[20] Joined Cases 110/88, 241/88 and 242/88 *Lucazeau and Others v. SACEM and Others* [1989] ECR 2811.

that the principle established by the ECJ was clearly misguided: there is absolutely no reason to believe that only the monopolistic society that charges the highest fee is abusing its position, and on top of this, there is a question of how you define the abuse.

In the *SACD* case[21] the issue was whether the collecting society could impose on the right-holders the obligation to assign all their rights, or whether they should cut into different types of rights and allow the users to withdraw some of them. The *Conseil de la concurrence* followed the precedents of *GEMA*[22] and *SABAM*,[23] and ruled that, in order to decide whether this obligation was abusive, one had to see if it was unfair for the users and whether it was justified by transaction costs. The structure of the industry was very concentrated, and therefore the right-holders did not have much negotiating power, so the existence of SACD was justified. The *Conseil* went on to argue that, if one allowed withdrawal of some of the authors, the society could not cross-subsidize the young and not-yet-known authors who decide to stay in the society. ("[. . .] the system contributes to diversity of supply and the diffusion of works by allowing the perception of rights even when the commercial success of the works is limited.") In my view, this reasoning is wrong, for it confuses issues of fairness between the authors with the concept of economic efficiency and competition. Many studies have shown that young authors earn little from their work, and I do not think that belonging to a society necessarily increases the supply of their work, and I am sure that very successful authors do not need the society to negotiate their rights. There are several issues at stake here: one of them is fairness, another is governance, but all these reasons have very little to do with efficiency and competition. In my written contribution I referred to a speech by Herbert Ungerer,[24] where he claims that having strong collecting societies is good for European industry given the reciprocal agreements between them. I do not see how that could be true.

To sum up, I am fairly disappointed with the French case law for the reasons mentioned. I think that this is doing regulation without having efficiency and competition in mind, and maybe this task should be better left to regulatory agencies.

▸ GIULIANO AMATO—While I was presiding over the Italian antitrust authority, we had a similar case and made exactly the same kind of errors.

[21] Décision no 05-D-16 du Conseil de la concurrence en date du 26 avril 2005 relative à des pratiques mises en œuvre par la Société des auteurs et compositeurs dramatiques (SACD).

[22] Case 125/78 *GEMA* v *Commission* [1979] ECR 31.

[23] See *supra* n. 20.

[24] H Ungerer (2004): "European music cultures and the role of copyright organisation - competition aspects", address to the European Music cultures—Sound or Silence Conference, The Hague 5 May 2004.

One gets involved in fairness issues because one feels it is just right to do so, but competition authorities are not the right institution to deal with this.

► Rafael Allendesalazar Corcho—I will talk about the collecting societies as "the usual suspects" for the competition authorities. This happens first because because collecting societies play a key role in managing authors' rights in the EC, and secondly, because they enjoy a *de facto* legal monopoly. There is also great uncertainty about what collecting societies can and cannot do. I will comment here on two issues: pricing and management of rights.

First of all, applying Article 82 EC to collecting societies raises contradictions. On the one hand, we know that dominant undertakings—and collecting societies are usually considered among them—are subject to special responsibilities under EU law, and the degree of such responsibilities should depend on the degree of dominance. On the other hand, as it has just been said, it is recognized that collecting societies have a good aim in managing these rights.

Collecting societies charge two types of fees: first, fees for users, and second, managing fees charged to members. The case law is predominantly related to the fees charged to users, as the problem of fees charged to members of the society is rather one of internal governance of the society than of competition law.

The main cases concerning pricing are *Basset*,[25] *Lucazeau*[26] and *Tournier*.[27] In *Basset*, the question was whether the fact that SACEM collected two kinds of fees on the public performance of sound recordings, instead of a single one, as in other Member States, amounted to an abuse in the sense of Article 82 EC. The Court established that the fact that the defendant was collecting two different fees is not in itself an abuse, but the level of the fees can become abusive in the sense of Article 82 EC. Yet when the French legislator decided that SACEM could collect two kinds of fees, was it not envisaged already that the society would collect a fee higher than in other countries?

In *Lucazeau* and *Tournier*, the question was whether the fee charged, which was several times higher than the ones collected by other collecting societies, was in itself contrary to Article 82 EC. The Court established that this could be so, provided that the rates are compared on a consistent basis and the collecting societies cannot justify such differences by reference to relevant and objective dissimilarities.

Although these principles seem straightforward, when applied in practice they raise several issues: for instance, whom to compare with, what is

[25] Case 402/85 *G. Basset v. SACEM* [1987] ECR 1747.

[26] See *supra* n. 20.

[27] Case 395/87 *Ministère Public v. Tournier* [1989] ECR 2521

"appreciably higher", who bears the burden of proof, and what objective and relevant dissimilarities could justify the application of different rates. Let us take an example: out of 25 Member States, let us say that we have a cluster of eight Member States in which the collecting societies charge the same fee, around 200–220 Euros, a second cluster of 9 Member States where collecting societies charge 100–110 Euros, and a third cluster of 9 countries where collecting societies charge between 50 and 60 Euros. Do societies in the first cluster necessarily apply an abusive price? Is a collecting society safe in the second cluster, or does it have to move directly to the third cluster? I think this is a problem, because, first of all, it creates legal uncertainty, and second, it creates a subjective standard: the fees will be legal or illegal depending on what other collecting societies are charging.

On the question of "appreciably higher", the first question is: what to compare with? Most collecting societies have standard fees and then apply different kinds of rebates. But even if we assume that we manage to compare the same kinds of fees, what does "appreciably higher" mean? In *SACEM*, the prices were several times higher. But then, is an extra 30% an "appreciably higher" price? The only reference to excessive pricing in EC competition law is in *United Brands*,[28] where the Court found that a price difference of 7% cannot automatically be ruled as excessive, but I think that this percentage, which refers to an agricultural product, cannot of course be applied to IP rights.

On the burden of proof, if we admit that a fee is appreciably higher, then the burden of proof shifts to the collecting society, who needs to prove why this is so. The reasons have to be objective and relevant. I suppose that "objective" means they do not depend on the will of the collecting society in question, and "relevant" means that they have to be proportional to the reasons justifying the differences. However, in *Lucazeau* and *Tournier* the ECJ gave a quite narrow interpretation to such justifications. *SACEM* argued that, first of all, it collected fees in relation to two separate rights, and second, the high fees corresponded to the high prices of the French discothèques and high operating costs. The ECJ said that these arguments were almost an indicator that SACEM was abusing its position, while the high prices of the discothèques were almost a consequence of the high fees perceived by the collecting society.

On the issue of price discrimination: collecting societies very often apply standard fees and then offer different rebates. After *GEMA I*,[29] *GEMA II*[30] and *Daft Punk,*[31] authors can withdraw partially their rights from collective management. In *SACEM* the Commission recognised that collecting societites can modify their fees if a member partially withdraws its rights. This

[28] Case 27/76 *United Brands* v. *Commission* [1978] ECR 207.

[29] Case IV/26.760 *GEMA I*, OJ L 134 [1971].

[30] Case IV/26.760, *GEMA II,* OJ L 166 [1972].

[31] Case C2/37.219, *Banghalter & Honem Christo/SACEM* ('*Daft Punk*'), available at http://europa.eu.int/comm/competition/antitrust/cases/decisions/37219/fr.pdf.

may raise difficulties. Let's assume that the fees scheme traditionally applied by a collecting society is based on all total costs of managing all the categories of rights it commonly administers for its members, cross-subsidising the costs of different categories. Let's further assume that a member decides to manage personally a category of rights, the administration of which is relatively easy and inexpensive, while leaving the more expensive rights for the collecting society to administer. The collecting society could then try to increase its managing fees on the administration of these more expensive rights. But by doing so, the collecting society could be accessed, under Article 82 EC, of applying fidelity rebates intended to induce its members not to withdraw certain rights from collective management.

To conclude, it can be expected that collecting societies will remain the "usual suspects" for the competition authorities due to the number of "grey areas" existing in the interaction between collective management of authors rights and competition law.

► Thomas Vinje—I will start with two basic remarks. The first is that collecting societies have played and will continue to play a very valuable role in society. They provide services of importance for right-holders, creators and users. The special nature of collecting societies should be taken into account in applying competition law. Second, the practices of collecting societies in certain regards should be reviewed in light of the new digital reality: there are certain practices which have been considered acceptable in the past, but are no longer so.

I will focus on the behaviour of collecting societies in terms of licensing of rights necessary for the operation of on-line music distribution systems. Arguably, in this context the behaviour of collecting societies has hindered the development of the market. The first thing to take into account is the borderless nature of the internet—the situation nowadays being very different from the past, when national broadcasters covered the national territory. This leads us head on into the problem of the territorial nature of copyright, where, if you wish to establish an on-line distribution system you have to contemplate the possibility of obtaining many licences: for the performance rights of authors and performers, for the mechanical reproduction of the performance, and also the right of producers to license by territory. The collecting societies have been helpful in providing one-stop shopping solutions to that problem – there is the IFPI simulcasting arrangement, the Barcelona arrangement (concerning the authors' mechanical rights) and the Santiago arrangement (for the authors' performance rights). I will focus now only on the Santiago arrangement.

The problem with the Santiago arrangement is that, although in principle it is a good step forward, it also embodies a customer allocation principle which raises serious competition issues. Basically, the Santiago arrangement requires that any potential licensee may obtain a one-stop shop licence covering all the collecting societies only in the country of its establishment, and in the case of multi-nationals, in the country of establishment of each subsidiary. The bottom line is that this arrangement eliminates all potential competition among collecting societies, as each retains absolute exclusivity on its national territory. The Commission accepted that, with respect to the rights themselves or the rates for the IP, there cannot be competition among collecting societies, because the rights are national, but with respect to the licences, this is a realm where competition should not be eliminated. My experience is that, by eliminating competition between collecting societies in the on-line sphere, these societies also lose incentives to reduce inefficiencies in their own operation, and perhaps most importantly, this prevents competition among collecting societies on non-price terms—for example, innovating licensing terms and business models. There are most-favoured-nation provisions in the Santiago agreement which also seriously limit the ability of collecting societies to adopt new approaches with respect to business models and licensing terms, or prevents collecting societies from forming smaller clusters of mini Santiago-like agreements.

This sort of exclusivity has been held justified under the existing case law (*Lucazeau* and *Tournier*) in light of the particular nature of the activities of collecting societies. In particular, the ECJ established that there would be a duplication of effort, and therefore it would be economically inefficient, for collecting societies to have to replicate their national control and monitoring systems in other countries. I think it is pretty obvious that these issues are completely different in the on-line world The very first case I pleaded in court was actually on behalf of BMI, in the District Court of Hawaii, and I remember that BMI had an employee sit in the bars in Hawaii to listen to the music played and check if it was licensed or not. So, there is a sort of physical infrastructure that one needs to implement in order to monitor off-line compliance. In the on-line world this is not necessary, and organizations such as the Business Software Alliance and the IFPI monitor infringement on the internet—monitoring and auditing is not territorially bound any longer. So, I suggest the Commission should consider if the Santiago-type of arrangements are acceptable in the on-line world.

To sum up, I think it is very important to keep in mind the interests of the actual members of the collecting societies. Some anecdotal evidence suggests that the collecting societies' fear of embracing the on-line environment and opening up to new business models has hindered the development of the on-line market and encouraged the development of on-line piracy. If new business models were to be embraced, consumers would likely also embrace them, more music would be available to more consumers, and as a result, there would be more profit for the authors themselves. Competition among collecting societies would lead them to be more open, and that would in the end help the members of the collecting societies themselves.

▶ Gustavo Ghidini—I would like to comment on an Italian situation, where the national collecting society called SIAE (Societá Italiana Autori ed Editori) has been granted (see Article 180) a legal monopoly over all transactions between authors, producers, editors, etc. The statute has been challenged before the Constitutional Court, which rejected the complaint by arguing that the monopoly was legal and justified by public interest tasks and functions. I am not convinced by this reasoning: it is true that SIAE has public service attributions, such as keeping public records of authorship, which serves *inter alia* for ensuring legal certainty. But negotiations on authors' and on publishers' fees are completely out of the public interest sphere, especially in view of the EU objective to restrict monopolies to their very essential functions. I would be more in favour of keeping the monopoly for the public register function, and separating it from the private business transaction aspects.

▶ Lars Kjølbye—Just a few comments on Prof. Mestmäcker's intervention. First, on Article 3 of Regulation 1/2003: it is true, this is a convergence provision, establishing that what is not prohibited under EC competition law cannot be prohibited by national competition law, and this convergence rule does not apply to unilateral conduct. But this was not the Commission's doing: we proposed a comprehensive convergence rule, which unfortunately was not accepted by the Member States, and I personally regret that very much. Second, it is also true that Article 3(3) of Regulation 1/2003 introduces an exception concerning unfair trading rules, but this is not a real exception, because the convergence rule is related only to the application of competition law. What needs to be kept in mind is that this exception only reflects the positive convergence objective, and not the general principle of primacy of EC law, which fully applies. So, it is not because a collecting society pursues public policy objectives that EC competition law should not apply. I would also like to make very clear that, irrespective of what the European Parliament may have said, or what a particular Commission official may have said in a speech, when the Commission applies the law it does not pursue social and cultural policy objectives. The Commission has had a number of cases involving collecting societies, all very complex, because essentially collecting societies are like pools. In Europe, for historical reasons, each collecting society licenses the rights of national authors. However, this does not really correspond to demand on the market, which is for multi-repertoire licences. These agreements are similar to a pool because they make available multi-repertoire licences based on complementary inputs. Collecting societies also argue that, if they cannot have a territorial limitation or user allocation clause, they will not enter such agreements. They invoke our counterfactual for intra-repertoire restrictions, arguing that, if in the absence of these restrictions, multi-repertoire licences would not be offered, then there is no restriction of competition. That is a real argument to consider. However the case may be that alternative forms of multi-repertoire licences would become available in the absence of the pool.

▸ Josef Drexl—I can see the full virtue of applying competition law in the field of collecting societies, and of course that efficiency counts for the customers and the members of the collecting societies. Collecting societies are undertakings in the sense of EC competition law, but I think they are a special kind of undertakings, because they have a very peculiar internal structure. Copyright law as such is not only there to provide an efficient distribution scheme for copyrighted works. So far, we only heard arguments referring to the relationship between the users of copyrighted works and the collecting societies. But if we examine collecting societies from the inside, then we have to acknowledge that there are internal conflicts. Most collecting societies bring together exploiters and creators, and a basic problem of the internal distribution of income is how much goes to the exploiters and how much goes to the creators. This is a fundamental issue, because if we protect creators, this is an issue for domestic copyright law. Mr Vinje mentioned the example of digital exploitation: actually, there are fights between the international federation of the phonogram industry (IFTI) and collecting societies about who gets the money. When you look at the situation in the Member States, there are now fights in the national parliaments on how to deal with the implementation of the INFOSOC Directive,[32] on whether there should be restrictions of rights management, basically organized by the industry itself, on if it should only be the industry to get the money, or the collecting societies can participate. That is one of the basic values of the system. It is not just about distribution – with collecting societies we can make sure that some part of the income goes to the creators. One of the most important German copyright lawyers from the last century said that copyright is the only way for the author to count on some protection. This should be taken into account, because with competition law we can guarantee allocative justice, but in the field of copyright law we also have to deal with distributive justice, and the market itself does not guarantee that the money goes to the creator. Maybe what will happen is that some collecting societies will simply leave the market, and we will end up with 3–4 big collecting societies in Europe. We do not know what eventual decisions by national legislators to grant more money to the creator and less to the exploiter this will bring about.

▸ Giuliano Amato—So, abandoning the old monopolies may mean getting into the hands of greedy private oligopolists.

▸ Thomas Vinje—I think an area that we have not discussed in depth is the relationship between collecting societies and their members, particularly in the context of digital rights management systems. There is an interesting

[32] *Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases*, OJ L 77 [1996].

question, which is probably not easy to answer, on the extent to which individual members of collecting societies should be allowed to withdraw some or all of their on-line rights and to allow for those rights to be managed by others. I do not think that in this context any of the collecting societies would be willing to withdraw those rights and give them to a private company like Bertelsmann, for example, unless they would be remunerated for it. Indeed, I know that some members of collecting societies are quite unhappy—it happens that one of my best friends is an author and member of the Norwegian collecting society, and he is not happy about the frequency and rates with which he is remunerated. Now, we all have our suspicions of big companies, but I have seen instances where US companies have taken on individual creators, who get paid on a daily/weekly/monthly basis, and take less in the way of administrative fees, so that the individual creator can end up substantially ahead. So I am not sure that leaving collecting societies leaves individual creators behind.

Second, if you look at the situation in the US, I think the system works pretty well there. Although there are very few collecting societies (like BMI, FOX, etc.), there is of course the consent decree. Compared to the situation Europe, in the US prices are substantially lower, while the willingness to embrace new systems is higher. So, the prospective of having only 3–4 big collecting societies in Europe competing with each other, I am not sure that this would be worse than what we have today, neither for users nor for the members of the collecting societies.

► JOSEF DREXL—Let us imagine that we will only have 10 collecting societies in Europe. There is a specific problem to it, because we know that collecting societies usually administer a full range of different rights. Some countries, especially the smaller ones, like the Scandinavian countries, have specific legislation on very specific kinds of rights. Maybe there is a particular danger that especially smaller collecting societies will not survive. This creates a problem for the national legislator, in terms of laws granting rights for the remuneration of the authors and having no collecting society to administer these rights. So, legislation is in need of administration. Even in Germany, as I recently heard, there is a problem because the copyright of choreographers is not administered because no collecting society finds these rights important enough. I am afraid that if we will have such a process of concentration something similar might happen.

Second, the mentioned competitive process is fine as long as these are really independent undertakings taking market-oriented decisions, etc. I previously hinted at the internal structure of the collecting societies, which makes it very difficult for them to react immediately to the market circumstances. Maybe this is because of internal fights between different groups that make these societies inefficient in the short run, but maybe in a few years these internal problems will be resolved. I have contacts with a few German collecting societies, and my impression is that they need internal restructuring. Maybe they should limit themselves to simply administering the rights of creators, and make a clear cut with exploiters.

▸ Gustavo Ghidini—To follow up on Prof. Drexl's intervention, I would comment briefly on the Italian experience. The SIAE was born in the 1860s, just after the foundation of the national state, by the initiative of Verdi, Boito and others, as a society of exclusively authors who wanted to have their rights better defended against publishers. In 1927, in a different constitutional context, publishers joined the society. It can be said that the interests of authors and publishers are in conflict. But the main idea is that the function of the collecting society has changed over time: it is not a sort of trade union anymore, but rather a kind of stock exchange where demand and offer float—at least this is the justification that is given.

▸ Ian Forrester—I have a great European old-fashioned Celtic sympathy for the irrational, confusing and interdependent. I think that when Europe tries to cope with culture, public broadcasting, sports, and even collecting societies, we get into tremendous difficulties, because applying pure competition law logic will inevitably mean that the stars get wealthier and the average authors get poorer, and I do not think that we are better off for that. This can be seen most notably in sports, and therefore if someone could be commissioned to write a PhD thesis on irrational defences for competition-dubious structures, I think in the field of culture one could find many examples.

▸ Giuliano Amato—I owe a reply to Prof. Ghidini. I wanted to note that competition may sometimes be damaging, as in this special area. Perhaps the Italian antitrust authority was wrong when it decided to open to competition the TV rights for football teams, because their association was a collecting society. Of course, for us it was much easier to examine such a society, with a limited number of members, than a collecting society that represents thousands of authors, and where transaction costs are enormous. But certainly the outcome of that decision in terms of fairness was a disaster, because the most famous teams started to negotiate for themselves at a very high level, thus ruining the market, the salaries of their players went up, and minor teams were forced in turn to raise salaries, even though in terms of the TV rights they got much less. Nowadays in the Italian first league we only have two teams with a balanced budget, while all the others should go bankrupt according to the law.

Having said so, I fully understand that the fact that we have to deal with this excessive pricing indigestible tasks whenever we deal with this kind of client. More competition would free us of this problem. Excessive pricing is an indicator that there is no market mechanism for adjusting prices. I wonder if the solution is somewhere in between: more competition beyond a legal monopoly situation. It is to be discussed whether there is a real need for collecting societies to be covered by this sort of legal exclusivity, or whether there could be competing societies that could even be fairer than the existing monopolies. One of the consequences of the legal monopoly that SIAE enjoys in Italy is that the stars are rewarded on the basis of their real performances, whereas the other authors are rewarded on a presumptive basis. It is materially impossible for one society to take into account the practical reality for all of these authors. It can well be that more collecting societies could do better than one, but it can also be that they would do as it happened in the football world.

▸ Ernst-Joachim Mestmäcker—There are of course good reasons to disagree about the proper status and functions of collecting societies, and it may be worthwhile to understand the reasons for the disagreement. Prof. Drexl pointed to an aspect that is essential in order to understand the continental approach, namely that there is a public interest in that copyrights granted by the legislator are indeed enforced and every right-owner is in the position to be remunerated. The obligation of collecting societies to accept for administration every right that is offered to them is an indicator of this public policy objective.

Another point, on the possibility of individual administration of copyrights. This observation may be equally important for patent pools as for collecting societies: the Nobel Prize-winning economist Buchanan and his colleague Yoon published an article[33] with an interesting thesis, that there is of course the "tragedy of the commons" (i.e., if you have a common resource everybody has the right to use it without limitation) but also by symmetry there is a "tragedy of the anti-commons", namely that, if you have a group of right-owners where everybody has an exclusive right and is in the position to decide whether to use it or license it, then the dissenting vote of one of the right-owners will prevent the use of the resource even though the use would be economically very beneficial. The relevance of this theory for the administration of copyrights is that most copyrights are not just individual rights, but normally a group of fragmented rights: you have a writer and a composer and an arranger and a publisher, and if you include 70 years after the death of the author and the entitlement of the heirs of these people, you have possibly a multitude of right-owners, and getting their common consent on the use of the right is almost impossible. This is actually what the collecting societies do with their

[33] Buchanan J and Yoon Y. J. (2000): "Symmetric Tragedies: Commons and Anti-Commons", 43 *Journal of Law and Economics* 1.

distribution schedules: they keep track of the development of the entitlement and distribute the proceeds to the various owners.

In relation to the Commission's position, I wanted to mention that in an important merger case, *EMI/Time Warner*,[34] the Commission's objections eventually led the parties to abandon the transaction. In its decision, the Commission argued that the merged entity would be in a position to bypass collecting societies, and in that way raise rivals costs, because collecting societies would be left with the administration of high cost rights, while the publishers would take care of programme rights and mechanical rights. In this case, the Commission accepted the idea that the enforcement of copyrights, particularly those that are high-cost, by collecting societies, is in the public interest. The *Simulcasting* decision tries to create a new product, differentiating the licensing of the copyright and the licensing of administration services by mandating a split fee: a copyright fee and a management fee. The latter fee is to be paid by the licensee. But there simply is no demand for such services—what the user really wants is the licence to use the copyrighted work. The construction of a fee based on the cost of management of this particular licensing business is, as far as I know, absolutely unique. In the world of competition law and regulation, you never force an undertaking to publish its costs and use them as a price, especially when there is no demand on the part of the users. The explanation for this rather surprising decision is probably the territorial restriction applicable to performance rights. The Commission recognized that, in order to arrive at multi-repertoire licences, one had to cumulate the individual royalties from all participating collecting societies, and consequently there is no price competition. To get price competition, the Commission tried to distinguish between the territorial limitation justifying the cumulating of the copyright fee and the administration costs. I do not think that this decision is a good precedent, but the Commission refers to it in its Communication on collective management of 2004.[35]

► FRÉDÉRIC JENNY—It seems to me that the problem is the fact that, the way in which the collection of music rights is organized, it has distribution effects at several levels, between the right-holders and the users, but also between the right-holders themselves. It also has allocative and dynamic effects. The problem is that we do not know exactly how competition plays into this, and how it affects the different dimensions.

Then we have organizations which have a very particular set of constraints, in the sense that their members are both holders and users of the rights. For me it is very hard to believe that such organizations will behave like ordinary firms, where independent shareholders try to maximize profits. So we have on

[34] Case M.1852, *Time Warner/EMI*, Commission decision of 7 February 2001, text available at http://europa.eu.int/comm/competition/mergers/cases/decisions/m1853_en.pdf.

the one hand theoretical complexity and on the other we have matters of governance. When we apply competition law—at least the way we have done it in France, but I believe it is done also in other Member States, and by the Commission—we do not take into account any of those complexities. The result is that decisions, particularly those of the ECJ, are based on two main ideas: fairness and integration of the European market. This is alright, but does not have much to do with competition policy. For this, I think it would be useful to have at hand the results of some additional studies in order to determine when to apply competition law and when regulation. I actually believe that regulation would be more useful for dealing with these problems.

▶ Rafael Allendesalazar Corcho—I also agree there are several problems in applying competition law to peculiar entities such as the collecting societies, and I think we should all agree that copyright is a special area, maybe in the main because of the difference between the interest of the users and those of the authors. This brings me to what the ECJ established in *SACEM*, namely that collecting societies are there to protect the authors. So collecting societies somehow still are trade unions, and they have to behave as trade unions.

▶ Thomas Vinje—I agree with Prof. Amato, one cannot anticipate the exact consequences of introducing competition among the European collecting societies. At the same time, experience shows quite clearly that collecting societies have not been open to the new opportunities that the digital on-line world offers. This hindered the development of the legitimate on-line music market and encouraged unremunerated peer-to-peer file sharing. I do think that competition law enforcement would encourage collecting societies to embrace new business models—which would be to the benefit of both consumers, who would be presented with more options, and creators in terms of their remuneration. But finally, the Commission must apply the law, and agreements like Santiago, by virtue of the exclusivity they establish, and considering that the reasons established by the ECJ in the past for accepting exclusivity are no longer present, it is clear that such arrangements infringe EC competition law.

[35] See *supra* n. 133.

SESSION TWO

SELECTED PROBLEM AREAS
2

WORKING PAPERS

CONTRIBUTORS:

Panel III: Patent Pools

Douglas Melamed
Peter Plompen
Hanns Ullrich

Panel IV: Collecting Societies

Allan Fels
Ernst-Joachim Mestmäcker
Frédéric Jenny
Rafael Allendesalazar Corcho
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I

A. Douglas Melamed and *David Lerch*[*]

Uncertain Patents, Antitrust, and Patent Pools

A. Introduction

Much of the discussion about the intersection of antitrust and intellectual property law—in particular, patent law—focuses on whether patents are sufficiently different from other forms of property to warrant different antitrust rules. While the US government antitrust agencies' intellectual property licensing guidelines assert that intellectual property should be treated the same as other forms of property,[1] cases[2] and commentators continue to suggest that patents are different and require different antitrust rules.

Several attributes have been suggested as warranting antitrust rules for patents that are different from those applicable to other types of property. In our view, however, none of them is really a difference in kind that warrants different antitrust rules.

- For example, some have said that patents are granted by the state. But most property rights are created by the state—including corporation charters, the right to enforce contracts, oil drilling rights, telecommunications licenses, and countless more. There is nothing unique about patents in this respect. Moreover, even if patents were unusual in this regard, the difference would not matter for antitrust purposes. The origin of a property right has no obvious relationship to the design of optimal rules to constrain its use.
- It has also been suggested that intellectual property is about creating ex ante incentives for innovation and that, by contrast, antitrust is concerned with ex post creation of market power. This is a false dichotomy. For one thing, although intellectual property is concerned with ex ante incentives, it is not intended to maximize those incentives. To the contrary, the limited duration of patent rights, the patent misuse doctrine and other restrictions make clear that intellectual property is more finely calibrated. More important,

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[1] US Department of Justice and the Federal Trade Commission (1995): *Antitrust Guidelines for the Licensing of Intellectual Property* § 2.0 (1995) ("IP Guidelines").

[2] E.g., *In re Independent Serv. Organization Antitrust Litig.*, 203 F.3d 1322 (Fed. Cir. 2000), *cert. denied*, 531 US1143 (2001).

antitrust law is also concerned with preserving ex ante incentives. US antitrust law has long recognized that even monopolists are entitled to the fruits of their "skill, foresight and industry"[3] and that the law should not undermine incentives for innovation and entrepreneurship.[4]

- It has been suggested that licensing intellectual property entails almost zero marginal costs. The implication, evidently, is that the price of an intellectual property license can be expected to exceed its marginal cost—and, indeed, ordinarily must exceed marginal cost in order for the inventor to recoup its investment in the innovation—and that conventional antitrust tools for identifying market power are therefore inapplicable to intellectual property. But antitrust has lots of experience with high fixed cost/low marginal cost businesses.[5] The issue is more common with intellectual property, but it is not different in kind from issues frequently addressed by antitrust tribunals.
- It has been suggested that intellectual property does not just describe something in the owner's possession; it limits what others can do with assets in their possession. But, unlike the two preceding attributes, this describes, not an economic attribute of intellectual property, but only a formal attribute. Even if this attribute distinguished intellectual property from other types of property, the difference would not seem to have any important consequence for antitrust. The distinction is in any event greatly overstated because antitrust frequently deals with contractual rights—easements, options, covenants, conditions, and the like—that have a similar reaching-outward property.

In short, none of these purported differences provides a basis for treating intellectual property differently from other forms of property for antitrust purposes. At most, they suggest facts that sound antitrust analysis should take into account.

1. The uncertainty of patents

There is, however, one difference between patents and other types of property that does warrant different treatment for antitrust purposes. The difference is this: Patent rights are often fundamentally uncertain—that is, the most basic attributes of the property owned by the patent holder are often unknown. Even one who owns a lawfully issued patent often does not know:

[3] *United States v. Aluminum Co. of Am.*, 148 F.2d 416, 430 (2d Cir. 1945).

[4] See generally, Melamed D. and Stoeppelwerth A. (2002): "The *CSU* Case: Facts, Formalism and the Intersection of Antitrust and Intellectual Property Law", 10 *George Mason Law Review* 407.

[5] See, e.g., *United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001) (en banc) (computer operating systems); *Advo, Inc. v. Philadelphia Newspapers, Inc.,* 51 F.3d 1191 (3d Cir. 1995) (newspaper advertising).

- Whether the patent is valid. Nearly one-half of all patents that are litigated to a final judgment are found not to be valid.[6]
- The enforceable scope of the patent's claims. One study found that 33 percent of all district court orders construing patent claims are reversed on appeal by the Federal Circuit.[7] The implication is that, even after claims have been construed at the district court level, there remains considerable uncertainty as to whether that determination will be reversed on appeal.[8]
- Whether the patent has been infringed.

This uncertainty about patents is not an accident. It is inherent in the patent system, which deliberately contemplates relatively perfunctory review at the Patent Office,[9] coupled with an expectation of later judicial determination of validity, scope and infringement for that small portion of issued patents for which determination of these issues really matters. Only 1.5% of all patents are ever asserted in litigation.[10]

In other words, by design, a patent is simply a probabilistic property right. As Carl Shapiro has noted, a patentee does not have the right to exclude others; he has only the right to try to do so.[11]

[6] See Lemley M. and Shapiro C. (2005): "Probabilistic Patents", 19 *Journal of Economic Persperctives* 75. See also Gilbert R. and Tom W. (2001): "Is Innovation King at the Antitrust Agencies? The Intellectual Property Guidelines Five Years Later", 69 *Antitrust Law Journal* 43, at p. 73. Gilbert and Tom draw a distinction between intellectual property and other forms of property based upon "the frequency of disputes over the boundaries of each person's property," presumably arising from uncertainty associated with intellectual property rights. *Id.* at 73.

[7] *See* K. Moore "Are District Court Judges Equipped to Resolve Patent Cases?" (2001) 15 *Harvard Journal of Law and Technology* 1, 38.

[8] The uncertainty about the scope of the claims is compounded by the doctrine of equivalents, which permits the patentee to expand its rights beyond the literal protections of the claims in certain cases, creating additional uncertainty over the scope of patent rights. *See* Lemley and Shapiro, *supra* note 7, at 19. Under the doctrine of equivalents, a patent "protects its holder against efforts of copyists to evade liability for infringement by making only insubstantial changes to a patented invention." *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 US722, 726–727 (2002). Justice Kennedy explained that, because "the nature of language makes it impossible to capture the essence of a thing in a patent application . . . [t]he scope of a patent is not limited to its literal terms but instead embraces all equivalents to the claims described," even though "[i]t may be difficult to determine what is, or is not, an equivalent to an element of an invention." *Id.* at 731–32, citing *Winans v. Denmead*, 56 US(15 How.) 330 (1854).

[9] *See* Lemley and Shapiro, *supra* note 7, at 4, 6 (noting that the United States Patent and Trademark Office issues nearly 200,000 patents in response to more than 85% of newly filed applications).

[10] Lemley and Shapiro, *supra* note 7, citing J Lanjouw and M Schankerman "Characteristics of Patent Litigation: A Window on Competition" (2001) 32 *RAND Journal of Economics* 129 (2001). As further evidence that most issued patents have little value, between 55% and 67% of issued patents are allowed to lapse for failure to pay maintenance fees. *Id.* at 9, citing M Lemley, "Rational Ignorance at the Patent Office" (2001) 95 *N. W. U. Law Review* 1495, 1500.

[11] H Hovenkamp, M Janis, and M Lemley "Anticompetitive Settlement of Intellectual Property Disputes" (2003) 87 *Minnesota Law Review* 1719, 1761, citing C Shapiro "Antitrust Limits to Patent Settlements" (2003) 34 *RAND Journal of Economics* (manuscript at 9).

2. Antitrust implications of uncertainty

The uncertainty of patents is unique. There is nothing like it is the context of other kinds of property. While there are sometimes uncertainties about aspects of other forms of property, they are not inherent in the property regime; and they rarely affect the antitrust analysis. There has, for example, probably never been a merger case that turned on uncertainty about who owns the factory.

By contrast, uncertainty about patent rights has figured prominently in recent antitrust cases. For example:

- *Settlement of patent disputes.* There have been several recent antitrust cases involving allegations that agreements that purported to settle patent disputes actually amounted to illegal market allocation agreements.[12] Uncertainty about the validity or scope of the patents is central to these cases. It explains the underlying patent dispute, provides a motive for an anticompetitive settlement—resolution before the patent is found to be invalid or not infringed prevents a legal judgment that could enable other firms to enter and can thereby protect monopoly profits that the parties could share by their agreement—and makes it difficult for antitrust courts to know whether the agreement is a legitimate settlement or an anticompetitive scheme.
- *Mergers.* Uncertainty about patents can be critical to sound merger analysis in two situations. In the first, the merger entails the combining of patents whose competitive significance needs to be assessed. Uncertainty about the patents can make it difficult or impossible for antitrust decision-makers to know whether the merger will create market power. The second involves allegedly blocking patents that might constrain competition even absent the merger. Uncertainty about whether the patents are valid and blocking can preclude knowing whether the merging parties would compete if they did not merge.
- *Standard setting.* Standard-setting organizations and antitrust agencies are concerned about problems that can arise when patent holders seek to exploit their patent rights after technologies covered by their patents have been incorporated into a standard and industry members have made sunk investments anticipating implementation of the standard. Some have suggested that risks of anticompetitive harm might be reduced if firms are required to disclose their patent holdings, and even their possible future

[12] See, e.g., *Schering-Plough Corp. v. FTC,* 402 F.3d 1056 (11th Cir. 2005); *Valley Drug Co. v. Geneva Pharms, Inc.,* 344 F.3d 1294 (11th Cir. 2003), *In re Cardizem CD Antitrust Litig.,* 332 F.3d 896 (6th Cir. 2003).

patents, before the standards are adopted.[13] But because patent rights (and even more so potential future patent rights) are uncertain, disclosure might not actually serve the intended purpose of enabling standard-setting organizations and their members to make the kind of informed and carefully calibrated decisions needed in order to guard against competitive harm. If so, because disclosure of patent information can be costly and (in the case of pending patent applications or other unrealized patent interests) entails loss of valuable trade secrets, the disclosure remedy could do more harm than good.

Uncertainty about patent rights also has important implications for the proper treatment of patent pools. The remainder of this paper focuses on those implications. In Part B, we describe patent pools in general and summarize their benefits and potential competitive harms. In Part C, we review the current state of antitrust law aimed at preventing the most serious of these harms. In Part D, we explain aspects of patent pools that have not been recognized in the decided cases and suggest how antitrust standards might be adjusted to take them into account.

B. Patent Pools

A patent pool is an "aggregation of patent rights for the purpose of joint package licensing."[14] Patent pools can provide several benefits. First, patent pools can reduce transaction costs associated with patent licensing, both by enabling multiple patents to be licensed in a single transaction and for a single price and by enabling patents of multiple patentees to be licensed in that way. Second, patent pools can combine and integrate complementary technologies and thereby facilitate their exploitation by licensees. Third, patent pools can clear blocking positions by combining into a single package blocking patents owned by multiple patentees; in this way, patent pools can reduce the risk of supra-monopoly royalties that might result if each holder of blocking patents sought to extract a separate, monopoly price for its patents. Patent pools can, in other words, promote the dissemination of technology both by lowering transaction costs associated with such dissemination and by lowering the prices for such technology.

But patent pools can also be anticompetitive. For example, if multiple patentees combine patents that are substitutes for one another into a single

[13] See generally *In the Matter of Rambus Inc.,* FTC Docket No. 9302 (pending and future patent applications); *In the Matter of Dell Computer Corp.,* 121 F.T.C. 616 (1996) (issued patents). The authors' law firm and one of the authors represent Rambus in this matter.

[14] Letter from Joel I. Klein, Acting Assistant Attorney General, to Garrard R. Beeney (June 6, 1997) ("MPEG-2 Business Review Letter") at 9.

pool, they might reduce or eliminate price competition between their competing technologies and thereby cause the kinds of harms typically associated with price-fixing agreements. Analysis of the antitrust issues presented by a patent pool that includes competing technologies owned by multiple patentees is straightforward and is not the subject of this paper.

Patent pools can harm competition in a different way, even when they do not include substitute technologies owned by multiple patentees. A patent pool that includes technologies for which there are substitutes or alternatives outside the pool can injure competition by excluding the alternatives outside the pool. If the pool includes valuable blocking patents that licensees want, the licensees might under some circumstances agree to license an entire pool of patents in order to get a license to the blocking patents. In that event, suppliers of technologies that compete with the other, non-blocking patents in the pool might be at a significant disadvantage. Licensees will already, in effect, have paid for the technologies included in the pool, and they might therefore be more reluctant to license the outsiders' alternatives for those technologies. Because patent pools ordinarily grant the licensees a license to use the patents, but do not require the patentee actually to use all the patents, they do not preclude use of the alternative technologies; but they can under some circumstances reduce the incremental value of those alternatives to the licensees.

The concern about exclusion of alternative technologies does not arise if the pool consists entirely of essential or blocking patents. By definition, there are no substitutes or alternatives for a blocking patent.

The competitive risks posed by patent pools that include patents which are not essential or blocking patents are analogous to those posed by an ordinary, anticompetitive tying arrangement. An anticompetitive tying arrangement entails the sale or licensing of a product that has market power. Instead of maximizing its profit on that product alone, however, the seller or licensor uses some of the market power of that product to induce its customers to pay for a second product. In effect, the seller sacrifices profits from the first or "tying" product—or "leverages" that product—in order to generate sales of the second or "tied" product. Under some circumstances, the seller can gain additional market power by such a leverage tie.

Because, at this level of generality, patent pools seem indistinguishable from ordinary tying arrangements, the few courts that have dealt with patent pools have simply applied to them antitrust principles applicable to such arrangements. As will be seen, however, patent pools in fact have special characteristics, related to the uncertainty of patents, that antitrust law ought to take into account.

C. Traditional Analysis of Patent Pools

The courts have had limited experience with patent pools. They have generally been regarded as simply a form of package sales subject to rules applicable to tying arrangements generally.

1. Early cases analyzing intellectual property pooling agreements applied contemporary standards applicable to tying arrangements

1.1. Paramount and Loew's

The Supreme Court has twice dealt with pools or packages of intellectual property rights. Both cases concerned copyright licenses. Reflecting then-prevailing attitudes about tying arrangements, the decisions were formalistic and paid little attention to the benefits of package selling.

In the *Paramount Pictures* case, decided nearly sixty years ago, the Court considered the practice of "block booking" of feature films, in which a feature film was licensed for exhibition only on the condition that the exhibitor also license other features released by the distributors.[15] With little economic analysis, the Court concluded that, "[w]here a high quality film greatly desired is licensed only if an inferior one is taken, the latter borrows quality from the former and strengthens its monopoly by drawing on the other."[16] The Court ruled in broad terms that "a refusal to license one or more copyrights unless another copyright is accepted" is "illegal."[17]

The issue of block booking came before the Court again in 1962, this time in the context of block booking for the purpose of television exhibition.[18] A local television station complained that, in order to purchase a license to show a film such as "Casablanca," it also had to "take such films as . . . 'Gorilla Man,' and 'Tear Gas Squad.'" *Loew's*, 371 U.S. at 41-42. The Court said that "' [t]ying agreements serve hardly any purpose beyond the suppression of competition," and concluded that, while "[t]here may be rare circumstances in which . . . tying arrangements involving patented or copyrighted . . . products" could survive antitrust scrutiny, it was "difficult to conceive of such a case."[19] The Court expressed concern that an intellectual property owner

[15] *See United States v. Paramount Pictures*, 334 US131, 158 (1948).

[16] *Id.*

[17] *Id.* at 159.

[18] *See United States v. Loew's Inc.*, 371 US38 (1962), quoting *Standard Oil v. United States,* 337 US293 (1949).

[19] *Id.* at 44, 49–50.

could use the "statutorily granted patent monopoly to extend the patentee's economic control to unpatented products" and said that, where a tying product was patented or copyrighted, market power would be presumed.[20]

The sweeping language used by the Court reflected contemporaneous attitudes about tying and intellectual property. And the cases did raise the same type of concern as those raised in ordinary tying cases. The block booking packages assembled films that were substitutes both for one another and for other films, offered by other distributors, that were not included in the packages. There was a market for all of the films, each of which had value; and licensees were required, not just to pay for all the films in the package, but actually to exhibit them.[21] The Court was thus understandably concerned that licensees "forced by appellants to take unwanted films were denied access to films marketed by other distributors who, in turn, were foreclosed from selling to" the licensees.[22]

1.2. Early patent pool cases—American Securit and Duplan

Early lower court cases examining patent pools followed a similar approach. In one involving a pooling arrangement relating to the manufacture of flat glass, the Third Circuit held that the licensor's practice of granting licenses to all patents related to the manufacture of flat glass for a set price, regardless of the number of patents actually used or desired, constituted patent misuse. *American Securit Co. v. Shatterproof Glass Corp.*, 268 F.2d 769, 771 (3d Cir. 1959). The court stated broadly that, "[w]hatever may be the asserted reason or justification of the patent owner, if he compels a licensee to accept a package of patents or none at all, he employs one patent as a lever to compel the acceptance of a license under another."[23]

In the later *Duplan* case, the court relied upon *American Securit* to conclude that the inclusion of certain patents relating to the texturing of synthetic yarns in a patent pool agreement, along with "certain unpatented 'technical information,'" constituted patent misuse.[24] The court said that, "[w]here the patent owner refuses to grant a license under less than all of his patents . . . or requires the licensee to accept a license under unwanted or inapplicable patents in order to obtain the use of desired patents, the practice is condemned under the patent laws as mandatory or coercive package licensing."[25] Interestingly, however, despite the finding of patent misuse, the

[20] *Id.* at 45-46.

[21] See *Paramount*, 334 USat 156–157, citing *United States v. Paramount*, 66 F. Supp. 323, 349 (S.D.N.Y. 1946).

[22] *Loew's*, 371 USat 49.

[23] *American Securit,* 268 F.2d at 777.

[24] *Duplan Corp. v. Deering Milliken, Inc.*, 444 F. Supp. 648, 673 (D.S.C. 1977), *aff'd in part, rev'd in part*, 594 F.2d 979 (4th Cir. 1979) (*per curiam*).

[25] *Id.* at 696.

court concluded that the tying arrangement did not violate the antitrust laws on the ground that the plaintiffs "were not forced to forego their free choice between competing products for there were none". [26]

These courts' analyses were superficial, and their language was broad. But the conduct at issue in these cases, like that involved in the Supreme Court's block booking cases, did raise traditional tying problems. The package in *American Securit* included all patents "related to the industry,"[27] and many of the patents included in the package at issue in *Duplan* "were known not to be applicable" to or complements for the essential patents.[28] It was therefore likely that the patent pools in those cases tended to exclude alternatives for some of the patents.

1.3. Standard Oil (Indiana) and Cross Licensing

None of these four cases appeared to recognize the potential benefits of intellectual property or patent pools. Other early cases, however, acknowledged the problem of mutually blocking patents. In the Supreme Court's 1931 decision in *Standard Oil Co. (Indiana)*, for example, the Court reasoned that "[a] patent may be rendered quite useless, or 'blocked,' by another unexpired patent which covers a vitally related feature of the manufacturing process."[29] Therefore, the Court said, "[a]n interchange of patent rights . . . is frequently necessary if technical advancement is not to be blocked by threatened litigation."[30]

2. More recent cases recognize potential benefits posed by tying and require more rigorous proof of likely harm

While patent pools have rarely been the subject of litigation since these early cases, principles applicable more generally to tying arrangements have been

[26] *Id.* at 674. The defendants' only competitor sold yarn texturing machinery embodying its own patents, but the court stated that there "was obviously no market" among the defendants and the sole competitor regarding the competitor's patents and that, even if the competitor "possessed its own brand of . . . 'technical information,' . . . it is not readily apparent how it would have been of any use to the purchasers of [defendants'] machines." *Id.*

[27] *American Securit Co. v. Shatterproof Glass Corp.*, 154 F. Supp. 890, 894 (D. Del. 1957).

[28] *Duplan,* 444 F. Supp. at 695.

[29] *Standard Oil Co. v. United States*, 283 US163, 171 n.5 (1931).

[30] *Id.* at 171. *Standard Oil* involved a cross-licensing arrangement. The Ninth Circuit in *Cutter Laboratories v. Lyophile-Cryochem Corp.*, 179 F.2d 80 (9th Cir. 1949), followed the rationale of *Standard Oil* in recognizing the procompetitive benefits of patent pools where patents held by different corporations stand in a blocking relationship. See also *Carpet Seaming Tape Licensing Corp. v. Best Seam Inc.*, 616 F.2d 1133, 1142–1143 (9th Cir. 1980) (reversing a finding of patent misuse where the trial judge failed adequately to consider whether the patents at issue were in a blocking relationship).

evolving in the aftermath of the Supreme Court's decision in *Jefferson Parish Hospital District. No. 2 v. Hyde*, 466 U.S. 2 (1984). *Jefferson Parish* reaffirmed that tying can be illegal per se, i.e., that it can be illegal even without proof of injury to competition in the market as a whole, but it narrowed the proscription. The Court held that only "certain types" of tying arrangements are illegal per se.[31] The Court explained that tying injures competition only when the buyer "would . . . otherwise [have] bought . . . from another seller" and the tie thus excludes suppliers of alternatives to the tied product.[32] As the Court put it, "the law draws a distinction between the exploitation of market power by merely enhancing the price of the tying product, on the one hand, and by attempting to impose restraints on competition in the market for the tied product, on the other."[33] The Court concluded that per se condemnation should be reserved for those arrangements that are likely to "have the type of [anti]competitive consequences addressed" by tying law, namely, foreclosure of competition in the market for the tied product.[34]

The more recent court of appeals decision in the *Microsoft* case went further because it emphasized, not just skepticism about the frequency of harms from tying, but also the potential benefits of tying, which include reduced distribution and transaction costs and the creation of economies of scope.[35] The court added:

> "There may also be a number of efficiencies that, although very real, have been ignored in the calculations underlying the adoption of a per se rule for tying. We fear that these efficiencies are common in technologically dynamic markets where product development is especially unlikely to follow an easily foreseen linear pattern." *Microsoft*, 253 F.3d at 94.

The *Microsoft* court thus expressly noted the need to fashion a more rigorous set of filters in order to discern which tying arrangements are actually anticompetitive.[36]

These cases signal an increasing willingness of courts to recognize the benefits of tying arrangements and to attempt to distinguish harmful packages from beneficial packages. They and other recent cases have employed various filters or screens intended to identify tying arrangements that can be condemned as unlawful per se. Because per se rules require courts "to make broad generalizations about the social utility of particular commercial practices,"[37] without the need for proof of "actual harm to

[31] 466 USat 9.

[32] *Id.* at 16.

[33] *Id.* at 14.

[34] *Id.* at 21.

[35] *United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001) (en banc). The *Microsoft* case was concerned with particular issues raised by so-called "technological tying" through the design of expanded software products and thus has little direct application to patent pools.

[36] *Id.* at 87.

[37] *Continental T.V. v. GTE Sylvania Inc.,* 433 US36, 50 n.16 (1977).

competition" or assessment of the "justifications" in the individual case,[38] however, the filters are not well-suited to identify particular package arrangements whose benefits exceed their harms.

Separate products. The Supreme Court held in *Jefferson Parish* that tying arrangements will be condemned only if they involve two separate products and that products are separate for this purpose only if "there is a sufficient demand for the purchase of [the allegedly tied item] separate from [the allegedly tying item] to identify a distinct product market in which it is efficient to offer [the tied item] separately from [the tying item]."[39] In principle, this requirement should ensure that tying will be condemned only where the defendant could efficiently offer an unbundled alternative; if so, the separate products requirement ought to permit any efficiency-related justification of tying arrangements, including patent pools. In practice, however, as the *Microsoft* court explained in a different context, practical application of the separate demand test might not fully account for efficiencies of packages of new technologies. [40]

Coercion. Many courts have required plaintiffs to show that a seller not only possesses market power, but actually used that power to force or coerce the purchasers to buy something they did not want to buy. The Court in *Jefferson Parish* framed the inquiry as "consider[ing] whether [defendants] . . . have used their market power to force their [customers] to accept the tying arrangement" and noted that per se prohibition was appropriate only "if anticompetitive forcing is likely."[41] Other cases have said that selling separate products in a single package is not unlawful if it is done for the "convenience of the parties."[42]

The coercion requirement also makes sense in principle because it attempts to separate arrangements that involve using the power of the tying product to help a less desired tied product compete against its rivals from those arrangements that are actually desired by customers. But theory and practice

[38] *Town Sound & Custom Tops, Inc. v. Chrysler Motors Corp.*, 959 F.2d 468, 477 (3d Cir. 1992) (en banc).

[39] *Jefferson Parish,* 466 USat 21–22.

[40] *Microsoft*, 253 F.3d at 92 (explaining that "the first firm to merge previously distinct functionalities . . . or to eliminate entirely the need for a second function . . . risks being condemned as having tied two separate products because at the moment of integration there will appear to be a robust 'distinct' market for the tied product")

[41] *Jefferson Parish,* 466 USat 16, 18. *Jefferson Parish* involved tying of anesthesiology services to other hospital services, and the Court pointed to evidence that patients there had repeatedly expressed a preference to use anesthesiologists other than those required by the hospital. Other courts have articulated the "forcing" requirement in terms of "coercion," noting that "there must be a showing that the seller of the tying product 'coerced' to some extent the purchaser into buying the tied product." *See Airweld, Inc. v. Airco, Inc.*, 742 F.2d 1184, 1189 (9th Cir. 1984).

[42] *Zenith Radio v. Hazeltine Research, Inc.*, 395 US100, 138 (1969); *see also Engel Indus., Inc. v. Lockformer Co.,* 96 F.3d 1398, 1408 (Fed. Cir. 1996).

are not always the same because, if everyone accepts the package, coercion might be suspected even where the real reason is customer preference.[43] Moreover, several courts have held that coercion can be inferred if the seller has market power in the tying product.[44]

Professor Hovenkamp has proposed to make the coercion requirement rigorous by requiring that plaintiffs prove that "requests for separate provision [of the tied product] were rebuffed or circumstances indicate that customers reasonably believed that such requests would be futile or excessively burdensome."[45] But, while that test should work for ordinary ties, it is not sufficient for patent pools. As explained below, a patent pool might, for procompetitive reasons, include patents that the licensee does not need. A licensee might therefore demand to have the unneeded patents removed from the pool and, in order to ensure that he is not required to "pay" for the unneeded patent, that the price or royalty for the pool be reduced to reflect the deletion of the unneeded patent. If the licensor refuses, exclusion of rivals might be suspected. As will be seen, that might be a mistaken inference.

Price. Some cases recognize that, if the tied product is truly given away for free, the arrangement cannot cause the harms tying rules are intended to prevent.[46] The reason is that tying arrangements are thought to injure competition when the threat of not being able to get the desired tying product forces the buyer reluctantly to buy, or take on the burdens of, the tied product. If the tied product is free, forcing is not necessary to explain its acceptance by the customer.[47]

The price filter, however, is an imperfect tool for dealing with patent pools. The first problem is that the tied product might not be free, even if the nominal price is zero. The price impact could be masked by the posting of a single price, nominally for the tying product or for the package as a whole.

Moreover, proof problems can be difficult. To be sure, it might be reasonably easy to prove in some instances that the tied product is free. For

[43] As the court recognized in *Grappone, Inc. v. Subaru of New England,* 858 F.2d 792, 795 (1st Cir. 1988) (Breyer, J.), a "tie itself cannot *automatically*, in and of itself, force the Buyer to take an inferior product B or to pay more than it wishes for that product" because, even if the Seller has been fully exercising market power, it "cannot force buyers to take a more expensive or less desirable product B, *unless* it provides buyers *equivalent* compensation by lowering the price of Product A . . . for otherwise buyers, who were already paying as much as the Seller could charge them . . . would also likely switch to other sellers or discontinue use of Product A." *Id.*

[44] See, e.g., *Town Sound & Custom Tops, Inc.,* 959 F.2d at 479; *Tic-X-Press, Inc. v. Omni Promotions Co.,* 815 F.2d 1407, 1415 n.15 (11th Cir. 1987).

[45] Areeda P. *et al.* (2004): *Antitrust Law,* Aspen, New York, para. 1756e, at 307.

[46] *E.g., Multistate Legal Studies, Inc. v. Harcourt Brace Jovanovich Legal & Prof'l Publ'ns, Inc.,* 63 F.3d 1540, 1546–1548 (10th Cir. 1995).

[47] Of course, even if the tied product is given away for free (including without any obligation that the customer use the product or otherwise incur costs to acquire it), it could still reduce demand for or deter investment in substitutes. That concern, however, does not imply the kind of leverage or forcing harm that tying rules are intended to prevent.

example, the addition of the tied product to the package, or its deletion from the package, over time with no change in price should establish at the very least a presumption that the tied product is free.

The contrary presumption, however, cannot so easily be established on the basis of evidence that addition or deletion of the tied product was accompanied by a change in the price of the tying product or the overall package. The changes could be coincidental. More important, they could reflect something very different from the harm that anticompetitive ties can cause—imposition of a tied product burden on the purchaser and thus foreclosure of alternatives that the purchaser would otherwise have preferred. As will be seen, in the case of a patent pool, inclusion of the tied product in the package can enhance the value of the *tying* product, even if the customer would prefer to use an alternative to the tied product.[48]

Actual exclusion. Reliance upon evidence of actual exclusion of alternatives to the tied product also presents complicated proof issues. In particular, proof that purchasers of the package did not purchase alternatives to the tied product that appear to be of comparable quality and price will not necessarily establish exclusion if the products are differentiated.

In short, none of the filters suggested by the *Jefferson Parish* case and its progeny is sufficient to guard against condemning benign packages as unlawful tying arrangements. As will be seen, the risks and dangers of false positives might be especially great in the case of patent pools.

3. The analysis of patent pools by the enforcement agencies

Although there is no public record of the enforcement agencies having opened an investigation of or taken enforcement action against a patent pool on the ground that it constituted a tying violation, the agencies have provided guidance about how they analyze the competitive issues raised by patent pools. As a general matter, the agencies recognizes that the aggregation of patent rights for the purpose of joint package licensing "may provide pro-competitive benefits by integrating complementary technologies, reducing transaction costs, clearing blocking positions, and avoiding costly infringement litigation."[49] The IP Guidelines note, in particular, that cross-licensing

[48] Professor Hovenkamp's analysis of bundled price discounts makes a similar point. He argues that, in determining whether a bundled discount constitutes predatory pricing, the proper inquiry is whether the price of the package is above the cost of the entire package. *See* Areeda et al., *supra* n. 46, para. 749. It would be incorrect, according to Professor Hovenkamp, to focus on the discounted price of the "tied" product alone where the profitability of the arrangement "depends on increased sales [of the "tying" product or the package induced by the arrangement], not on any post-predation period of recoupment at monopoly price [for the "tied" product]." *Id.*

[49] IP Guidelines, *supra* n. 2, § 5.5.

and pooling arrangements can enhance competition by "promoting the dissemination of technology."[50]

In four Business Review Letters beginning in the late 1990's, the Justice Department employed a two-step analysis to determine whether a patent pool, including patents from multiple licensors, raises competitive concerns.[51] The Department considers whether the proposed arrangement is likely to integrate complementary patent rights and, if so "whether the resulting competitive benefits are likely to be outweighed by competitive harm posed by other aspects" of the program.[52] The letters said that the Department would not challenge various patent pools that had the following features: (1) only "essential" patents were included in the pool; (2) the parties engaged an independent expert to verify that the patents were essential; and (3) licensees were not required to license the entire package because each licensor offered separate licenses for its patents.[53] The letters made clear that, while the absence of any of these features might give rise to competitive concerns, it would not necessarily cause the pool to be illegal.

The key to the Justice Department's analysis is its focus on whether the patents are essential to the standard sought to be implemented by use of the licensed patents. The Justice Department reasoned that, if a patent is essential to implementation of the standard, its inclusion in the pool cannot, by definition, exclude alternatives. Moreover, if individual licensees licensed different blocking patents separately, the likely result would be higher and less efficient royalties in aggregate than the royalty that would be charged if the patents were licensed together, as part of a pool.

The first of the Business Review Letters approved a pool confined to patents for which there was no technical alternative. In other words, manufacturers could not implement the standard without infringing all of the patents in the pool.[54] In the later letters, the Department approved pools that included patents that were necessary as a practical matter, even if not

[50] IP Guidelines, *supra* n. 2, § 5.5.

[51] A *Business Review Letter* is a statement of the Department's enforcement intentions issued in response to a request for such a statement by parties contemplating a specific, future course of conduct. The letters recite that they are based on assumed facts represented by the applicants and that the conclusions are subject to change if the actual facts differ. *Business Review Letters* are not binding on the courts.

[52] See Letter from Joel I. Klein, Assistant Attorney General, to Garrard R. Beeney (Dec. 16, 1998) ("*Sony Business Review Letter*") at 5.

[53] See Letter from Charles A. James, Assistant Attorney General, to Ky P. Ewing (Nov. 12, 2002) at 7 n.33 and 10; Letter from Joel I. Klein, Assistant Attorney General, to Carey R. Ramos (June 10, 1999) ("*Toshiba Business Review Letter*") at 7, 9; Sony Business Review Letter, *supra* note 53, at 3–4; *MPEG-2 Business Review Letter*, *supra* note 15, at 11–12.

[54] See *MPEG-2 Business Review Letter*, *supra* n. 15, at 10. "The limitation of the Portfolio to technically essential patents, as opposed to merely advantageous ones, helps ensure that the Portfolio patents are not competitive with each other and that the Portfolio license does not, by bundling in with non-essential patents, foreclose the competitive implementation options that the MPEG-2 standard has expressly left open." *Id.*

technically necessary, to implement the standard.[55] In other words, patents could be included in the pool, even if non-infringing alternatives existed, as long as those alternatives were, for cost or other reasons, not realistic substitutes as a practical matter.

These Business Review Letters represent an important advance in the analysis of patent pools. They move away from the somewhat formalistic residue of early law regarding tying arrangements and recognize that inclusion of essential patents in a pool cannot be anticompetitive. But these letters do not answer the hardest and perhaps most important question posed by patent pools—what should the parties do when they do not know whether the patent is essential?

4. The recent cases do not answer the hard question

Cases decided since the Business Review Letters were issued do not answer this question.[56] For example, in litigation regarding that DVD 6C patent pool, a district court rejected the argument that licensing pursuant to the pool constituted illegal tying.[57] Cinram, a DVD manufacturer, contended that the prices of individual licenses to essential patents exceeded the price of the pool license, thereby making individual licenses an unrealistic alternative. In granting summary judgment to the licensor, the district court relied heavily on the Justice Department Business Review Letters and framed "[t]he true issue in situations involving a pool of rights" as "whether the antitrust plaintiff lacked a 'realistic opportunity' as a 'practical matter' to obtain individual licenses from individual owners as opposed to a single license from the pool."[58] The court concluded that licensees had the option to obtain licenses from each patent owner, even though the pool license was "the simplest" and "most economical approach."[59]

[55] See *Sony Business Review Letter*, *supra* note 53, at 10 (approving pool containing "essential" patents, defined as "necessary (as a practical matter) for compliance with" the relevant standard); *Toshiba Business Review Letter*, *supra* note 54, at 3 (included patents were defined to be "essential" if they were "necessarily infringed" or "there [was] no realistic alternative" to them "in implementing the DVD Standard Specifications").

[56] In approximately the same time frame as the Department of Justice was involved in the Business Review Letter process regarding the DVD and MPEG-2 patent pools, the Federal Trade Commission filed a complaint challenging a patent pool agreement between VISX, Inc. and Summit Technology. See *In the Matter of Summit Tech., Inc., and VISX, Inc.*, FTC Docket No. 9286 (Mar. 24, 1998 Complaint) (available at http://www.ftc.gov/os/1998/03/ summit.cmp.htm). The complaint focused on the risk that the pool at issue there eliminated competition between the pool members, rather than the tying-type risk that it excluded other rivals.

[57] *Matsushita Elec. Indus. Co. v. Cinram Int'l, Inc.*, 299 F. Supp. 2d 370, 379 (D. Del. 2004).

[58] *Id.* at 377, citing *Buffalo Broad. Co. v. American Soc'y of Composers, Authors & Publishers*, 744 F.2d 917, 925 (2d Cir. 1984).

[59] *Id.* at 379.

In two recent but still pending cases, courts have applied older, more formalistic notions. In one, the Federal Circuit said that it was required by Supreme Court decisions, including *Loew's,* to hold that a patent creates a rebuttable presumption of market power sufficient to cause a tying arrangement to be illegal.[60] The court acknowledged that the presumption of market power has been subject to heavy criticism[61] but held that, while "[t]he time may have come to abandon this doctrine . . ., it is up to the Congress or the Supreme Court to make this judgment."[62] Employing a similar formalistic analysis, the International Trade Commission in the *Philips* case found a patent pool to constitute patent misuse, even though the record contained no evidence that any licensee had sought to remove the nonessential patents from its licenses or to use any technological alternative to those patents.[63]

D. Special Problems of Patent Pools

One implication of the foregoing is that inclusion in patent pools of nonessential patents brings antitrust risk. While there are numerous defenses to allegations of illegal tying, none is directed precisely at the special problems of patent pools.

1. Patent pools as insurance

Technologies are rapidly evolving. Especially in the information technology sector, new products typically require use of multiple technologies for which patent pools can be important. The following is, therefore, probably a typical situation. One or more firms develop new technologies to enable the creation

[60] *Independent Ink, Inc. v. Illinois Tool Works, Inc.*, 396 F.3d 1342, 1351–52 (Fed. Cir. 2005), *cert. granted,* 125 S. Ct. 2937 (June 20, 2005).

[61] The court noted that both the Justice Department and the Federal Trade Commission have resolved as a matter of prosecutorial discretion not to presume that a patent or copyright confers market power. *Id.* at 1350, n.10. Justice O'Connor's concurrence in *Jefferson Parish*, joined by three other justices, explained that "a patent holder has no market power in any relevant sense if there are close substitutes for the patented product." *Jefferson Parish*, 466 USat 37, n. 7 (O'Connor, J., concurring), citing Landes P. and Posner R. (1981): "Market Power in Antitrust Cases", 94 *Harvard Law Review* 937.

[62] *Id.* at 1351.

[63] *See In the Matter of Certain Recordable Compact Discs and Rewritable Compact Discs*, Inv. No. 337-TA-474, USInternational Trade Commission (Mar. 11, 2004). This decision is currently on appeal in the Federal Circuit. *See USPhilips Corporation v. International Trade Commission*, Docket No. 04-1361 (Fed. Cir.). The authors' law firm and one of the authors are counsel for Philips in its appeal of the ITC's decision to the Federal Circuit.

of new or improved products. They promulgate new standards specifying the requirements of the new products. Many technologies are involved, and many patents are potentially implicated, although because of the uncertainty about patents and patent applications no one is entirely sure which patents might be infringed by manufacturers of the new products. The patentees decide to form a patent pool in order to facilitate exploitation of their new technologies. The pool promises to do so by offering interested manufacturers one-stop shopping for numerous relevant patents, access to the proprietary standards, and the avoidance of the prospect of having to pay monopoly royalties for multiple essential or blocking patents the sum of which can be expected to exceed the royalty demanded by the patent pool.

Prospective licensees might be very interested in manufacturing the new products. They will probably recognize that at least some of the patents in the pool are unquestionably valid essential, blocking patents. The licensees should be willing to pay the full monopoly royalty for the rights to these blocking patents. But they might have an additional concern. They might be concerned that the licensors own additional patents which they might unwittingly infringe or might later discover are essential to manufacturing the products. The licensees are already contemplating incurring the risks of what might be a costly investment in new technologies and new products, and they might be unwilling to incur the additional risk that they will later be sued for infringing other patents, not included in the pool, that they did not predict would be essential. So, the prospective licensees might ask, or anticipating this the licensors might offer, to include in the patent pool numerous additional patents that might or might not be needed to manufacture the products. In effect, the licensors are offering the manufacturers insurance against the risk that they will later be faced with infringement claims based on patents that they did not initially believe to be essential.

In this situation, the licensor does not gain additional market power by licensing additional patents. His market power comes from the concededly blocking patents, which are sufficient to enable him to charge a monopoly price for the technologies needed to manufacture the new product. The licensor's market power comes from his ability to preclude manufacture of the new products. One blocking patent is sufficient for this purpose; the licensor's market power is not increased by the inclusion of other blocking patents in the pool.[64]

It is possible, nevertheless, that inclusion of the additional patents in the pool will increase the royalty that the licensor can charge for the pool. The

[64] If there is uncertainty as to whether any one patent is a valid blocking patent, ownership of multiple possibly valid blocking patents will increase the likelihood that at least one of them will be valid and blocking and will thus increase the licensor's market power. But, as a practical matter, the market power benefits to the licensor of including multiple patents in a patent pool are likely to be exhausted by the few patents that are most likely to be valid and blocking. The remainder are unlikely to be needed for that purpose.

price effect, however, is not a reflection of additional market power gained by displacing alternative technologies.[65] Nor is it a result of the licensor's offering the manufacturer additional technologies that the manufacturer intends to use in making the new product, or the manufacturer's incurring additional costs that might affect the monopoly price for the package.[66] Instead, the price increase likely reflects the fact that the package includes both the blocking patents and a kind of insurance that the licensor is not sandbagging the licensee or otherwise reserving the opportunity to seek additional royalties later if it turns out that the licensee infringes other patents. In other words, the price increase reflects the fact that inclusion in the pool of additional patents increases the value to licensees of the *essential* patents by reducing the risks they must incur to use those patents.

In these circumstances, it is efficient for the licensors to include in the pool patents that might or might not be essential.[67] One might, in other words, think of this kind of pool as an "insurance" tie, by contrast to the kind of "leverage" tie with which the antitrust laws are concerned.

If antitrust law were construed to prohibit inclusion in patent pools of all patents that turn out to be nonessential or that do not appear at the outset clearly to be essential, it would likely inhibit the dissemination of new technologies. Because of uncertainty about essentiality and, thus, possible antitrust liability, licensors might be deterred from creating patent pools that are necessary to the efficient exploitation of new technologies and the development of new products. They might attempt to deal with antitrust risks by making greater investments in efforts to reduce uncertainty about the validity and essentiality of their patents, but those efforts would of course both impose transaction costs and likely delay the commercialization of their technologies. In addition, and perhaps more important, licensees would be deterred from assuming the risks of investment in new technologies for fear that they would later be exposed to liability for infringing patents that did not initially appear to be sufficiently likely to be valid and essential as to warrant their inclusion in the pool.

[65] The licensor would, in any event, not ordinarily be able to gain additional market power by excluding alternatives to its nonessential patents. The licensor's market power comes from the blocking patents. Under some circumstances, however, the licensor might be able to gain additional market power by excluding alternatives to the nonessential patents; for example, if the monopolist could exclude those alternatives and gain market power in a market in which nonessential technologies are provided, it might be able to add to its market power by increasing entry barriers to the manufacturer of the new product or by inducing sunk investments by manufacturers in nonessential technologies which could inhibit switching to alternative technologies even after the essential patents have expired. See generally Farrell J. and Weiser P. (2003): "Modularity, Vertical Integration and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age", 17 *Harvard Journal of Law and Technology* 85, at pp. 105–119.

[66] The costs of adding an additional patent to the pool are presumably close to zero.

[67] *Cf. Hirsh v. Martindale-Hubbell, Inc.,* 674 F.2d 1343, 1347–1349 (9th Cir. 1982) (package that promoted the allegedly tying product not unlawful).

2. Implications for antitrust law

That patent pools can serve such an insurance function and thus enhance competition and welfare does not mean that they can never be anticompetitive. Under some circumstances, patent pools that include nonessential technologies can injure competition by excluding alternative technologies. Even pools that in general serve a procompetitive "insurance" purpose can, under some circumstances, have that effect.

But sound antitrust law will not presume anticompetitive effects or ignore the benefits of insurance pools. Instead, it will recognize those benefits and prohibit insurance-type pools only if the particular facts warrant a confident conclusion both that competitive harm has resulted or is likely and that that harm outweighs the costs of antitrust intervention.

The essentiality requirement articulated in the Justice Department Business Review Letters is not sufficient for this purpose because it does not address the licensees' need to be assured that they will not later be sued for infringing patents not included in the pool. Similarly, requirements that licensors offer unbundled, a la carte alternatives to the pool will not effectively address the problem. If a la carte licenses are offered but the price for the core, essential patents is not reduced, licensees would presumably have no incentive not to license the entire pool; in that event, the a la carte option would do nothing to ameliorate fears that the pool might exclude alternatives for the nonessential patents.

Requiring a la carte licensing together with reduced prices when certain technologies are omitted will not solve the problem, either. In an insurance pool, the nonessential patents have no independent value or discernable price. They are not like the motion pictures in the *Paramount* and *Loew's* cases or the anesthesiologists' services in the *Jefferson Parish* case. They do not constitute additional products or services for which there is a separate market. Thus, while one might imagine as a theoretical matter a licensor charging two prices—one for the essential patents by themselves and the other, higher price for the essential patents plus the insurance benefit of having the additional patents included in the pool, it is hard to see as a practical matter how a licensor of new technologies might be able to determine the appropriate price for the insurance benefit, in part because of uncertainty as to which patents are essential. There is, therefore, little if any basis for the licensor to assign separate prices to the separate patents if offered on an a la carte basis. Nor would it be easy to police the arrangement to ensure that the licensee is not using the omitted technology.[68]

[68] There would also be a difficult issue of how to adjust the price of the insurance benefit over time in a way that reflects new information about the patents and does not penalize early adopters who were willing to license the new technologies when uncertainties were greater.

Therefore, we propose that analysis of patent pools under the antitrust laws address specifically the prospect of procompetitive benefits of insurance-type pools. Specifically, in our view, patent pools should be found to violate the antitrust laws only (i) if they would be condemned under principles applicable to tying arrangements in general and (ii) after three additional steps are taken:

First, the licensor should be given an opportunity to show that inclusion in the pool of patents subsequently thought not to be essential reflected an "insurance" function of the pool, rather than the "leverage" function of an anticompetitive tying arrangement. This will require showing, among other things, that there was, when the pool was assembled, at least genuine uncertainty as to whether the patent at issue was essential. If the licensees are required not just to license the nonessential patent but also to use it, it can be presumed that its inclusion in the pool was not for "insurance" reasons.

Second, if the licensor makes a plausible showing that the patent was included for "insurance" reasons, the party challenging the pool should be required to prove the following:

- That the licensor insisted on retaining the nonessential patent in the pool after licensees had made clear to it that they would prefer to use some specific, identified alternative technology instead of the technologies covered by that patent;[69]
- That the licensor reasonably should have understood that the identified alternative does not infringe any licensor's patents and that the licensees could realistically and practically use the alternative to make products compliant with the standard; and
- That inclusion of the nonessential patent in the pool increased the price of the pool license enough to materially reduce the likelihood that the licensees would use the alternative technologies.[70]

These requirements are intended to ensure that insurance-type patent pools will not be condemned unless the licensor knows that they actually exclude competing technologies and has an opportunity to adjust the pool

[69] There has been similar evidence in many of the tying cases, but it has not generally been emphasized by the courts. In *Jefferson Parish*, for example, the court noted that patients "often request[ed] specific anesthesiologists" other than those specified in the tying arrangement. *Jefferson Parish*, 466 USat 22.

[70] One can imagine a very different allegation that inclusion of additional, free patents in an "insurance"-type patent pool constitutes predatory pricing (i.e., below cost). It is very unlikely, however, that the price of even the "free" patents themselves could properly be found to be below cost. In the first place, the incremental cost of licensing additional patents would almost always be near zero. More important, the incremental revenues properly attributable to the "free" patents would include the additional royalties paid for the tying or essential patents as a result of the "insurance" benefits of including the additional patents in the pool.

accordingly. Otherwise, the licensor might be penalized simply for providing in good faith an "insurance" pool for the benefit of licensees.[71]

Finally, the party challenging the pool should also be required to show a reasonable basis for determining the amount by which the royalties charged for the pool license should be reduced when the nonessential patent is removed from the pool. Without such a basis, the price effect of removing the patent from the pool would be arbitrary. It might be too low for removal of the nonessential patent to prevent competitive harm. Or it might be too high: An excessive price reduction might give opportunistic licensees an incentive to license outside the pool for reasons unrelated to competitive harm; that, in turn, could put downward pressure on the price of the pool license, with the result that royalties would be artificially suppressed (and incentives for invention thus diminished) or the efficiencies of the pool would not be realized.

E. Conclusion

Patent rights are profoundly uncertain. Firms account for that uncertainty in their transactions in many ways. Sometimes, in settlements of patent disputes for example, the resulting conduct can be anticompetitive. In other ways, including patent pools that include both essential and what turn out to be non-essential patents, the resulting conduct can reflect a procompetitive and efficient adaptation to the uncertainty of patents. Courts and antitrust agencies evaluating claims that package licenses constitute unlawful tying arrangements need to take account of patent uncertainty and to determine whether the challenged arrangements actually threaten to foreclose rivals in the tied-product market or whether, instead, they serve the procompetitive purpose of promoting the dissemination of new technologies.

[71] These requirements would make sense regardless whether, as others have previously proposed, the so-called per se rule for tying arrangements is eliminated, in which event parties challenging such arrangements would be required to prove, not only that the arrangement excluded rivals, but also that it created or was likely to create market power in the market for the tied product. See, e.g., *Jefferson Parish*, 466 USat 34 (O'Connor, J., concurring).

II

*Peter Plompen**

The New Technology Transfer Guidelines (TTG) as Applied to Patent Pools and Patent Pool Licensing: Some Observations Regarding the Concept of 'Essential Technologies'

Section 4 of the TTG (on '*Technology pools*') is not explicitly based on the two counterfactuals set out in paragraphs 11 and 12 TTG. However, paragraphs 210–221 describe the assessment of patent pools using the first counterfactual mentioned in paragraph 12(a) TTG: does the creation of the pool restrict actual or potential inter-technology competition that would have existed in the absence of the pool? Paragraphs 223–229 TTG deal with 'individual restraints' but they do not seem to be aimed at applying the second counterfactual mentioned in paragraph 12(b) TTG, the purpose of which is to identify possible intra-brand anticompetitive effects: does the pool restrict competition that would have existed in the absence of the contractual restraint? Paragraphs 223–229 TTG deal with "restraints commonly found in technology pools" (paragraph 223 TTG) but mainly discuss effects on *inter*-technology competition. Paragraph 226 TTG explicitly states that, if a pool has a dominant position on the market, royalties and other licensing terms should be fair and non-discriminatory and licences should be non-exclusive. It further adds: "These requirements are necessary to ensure that the pool is open and does not lead to foreclosure and other anticompetitive effects on downstream markets." Paragraphs 230–235 TTG address the institutional framework governing the pool and its effects on inter-technology competition. It therefore seems proper to conclude that the TTG in dealing with pooling agreements generally only apply the first counterfactual mentioned above. In doing so, the TTG make clear that negotiating and fixing royalties for the technology package and each technology's share of the royalties is inherent in the establishment of the pool and cannot in itself be considered restrictive of competition (paragraph 225 TTG). The second counterfactual

* Plompen Law, Eindhoven, The Netherlands. In this contribution I discuss only pools of patented technologies. For recent contributions on patent pools in general see Skitol R. and Wu L. (2005): "A Transatlantic Swim Through Patent Pools: Keeping Antitrust Sharks at Bay", in Lugard P. and Hancher L., *On the Merits: Current Issues in Competition Law and Policy. Liber Amicorum Peter Plompen*, Intersentia, Brussels, pp. 103–116; Beeney G. (2005): "Uncertainty and the Disincentive to Create Efficiencies: The Need for a Safe Harbour for Patent Pools", in the same volume, at pp. 201–216.

[1] Usually referred to as the joint licence agreement, or 'JLA'.

mentioned in paragraph 12(b) TTG is of course directly relevant for the licence agreement[1] based on the pooling agreement.

The TTG do not define the concept of 'technology' in relation to the technical scope of an intellectual property right, more specifically that of a patent, let alone the technical scope of a patent *claim*. A patent often comprises more than one independent patent claim, and a patent is infringed even where only one such claim is infringed. Each claim may protect a separate 'technology'. Such a technology is often a component technology of one or more other intermediate or final, overarching product or process technologies. For instance, CD technology can be identified as the overall technology to produce media (discs) and equipment (stand-alone or computer peripheral players) in accordance with the standard specifications governing the CD system and each of its constituent interoperable end products. Yet CD technology consists of many component technologies, most of which are also useful, if not essential, for other systems or products such as CD-ROM or CD-R. In this respect, the competitive situation on markets for technology is often not that different from that on markets for physical components. Agreements regarding components, including component technologies, are generally less likely to have anticompetitive effects, as reflected in paragraph 119(5) of the Commission's *Guidelines on Vertical Restraints*.[2] Component technologies may have alternatives which could also be used to fulfil the same requirements of the overall technology. Component technologies may be substitutes *inter se,* as a component for a downstream technology or product, but they will not normally be substitutes for the overall JLA technology.

Patents granted by and effective in different jurisdictions may contain claims using different language even if they basically concern the same invention. Patent applications are normally only filed in a limited number of jurisdictions, i.e., those believed to be important enough to justify incurring the costs attached to (maintaining) the relevant patents (or applications). Applications for a European patent often only designate certain EU/EEA Member States for which a patent grant is requested. The availability, validity, technical scope, territorial scope and duration of patent protection for what is basically the same technology may differ per jurisdiction. In assessing the competitive effects of a pool, one should in my opinion take into account the fact that the geographical scope of the relevant technology market will generally be world-wide and will not be limited to any particular jurisdiction in which the technology will be used for the standard product or process.

Pools composed solely or predominantly of substitute technologies amount to a price fixing cartel (paragraph 213 TTG). According to the TTG, the inclusion of substitute technologies in the pool as a rule amounts to

[2] OJ C 291 [2000].

collective bundling and constitutes a violation of Article 81(1) EC. This seems too harsh for most pools, which are not 'restrictive by object' as that concept is explained in the 2004 Commission Notice on Article 81(3) EC. Indeed, pursuant to the Notice, an infringement of Article 81(1) EC requires a showing of appreciable (potential) anticompetitive effects on the relevant market(s).[3] The Guidelines also consider that the conditions of Article 81(3) EC are unlikely to be fulfilled in the case of pools comprising, to a significant extent, substitute technologies (paragraph 219 TTG). Much of the discussion in the TTG concerns how to distinguish between substitute and complementary technologies. Technologies are substitutes when either technology allows the holder to produce the product or carry out the process to which the technologies relate (paragraph 216 TTG). Two technologies are complements as opposed to substitutes when they are both required to produce the product or carry out the process to which the technologies relate (paragraph 216 TTG). The Guidelines recognize that the distinction is not clear-cut in all cases, since technologies may be substitutes in part and complements in part. When, due to efficiencies stemming from the integration of two technologies, licensees are likely to demand both technologies, the technologies are therefore treated as complements even if they are partly substitutable (paragraph 218 TTG). In my opinion, a parallel should also be drawn with the way the TTG deal with the concept of technologies covered by blocking patents. Paragraph 32 TTG makes clear that a patented technology that cannot be used without infringing a patent covering another technology is in a one-way or two-way blocking position with respect to such other technology, and that the respective owners are considered to be non-competitors. The same paragraph mentions that convincing evidence showing that the parties have (or had) good and valid reasons to believe that a blocking position exists (or existed) can be relevant to substantiate the existence of such a blocking position. This underscores that a good faith belief that a blocking position exists (or did exist) is generally likely to have the same competitive effects as a final court decision finding that there is (or was) such a blocking position. Similarly, a good faith belief of the contributing parties that each of the pooled technologies is necessarily infringed by the product or process licensed through the JLA should generally preclude a finding that the underlying pool arrangement could be regarded *ex post* as a pool which, at its inception, included substitute technologies.

The TTG also distinguish between essential and non-essential technologies included in a pool. Paragraph 216 TTG defines a technology as 'essential' (as opposed to non-essential) if there are no substitutes for that technology,

[3] For further reading on the Notice, see in particular Kjølbye L. (2004): "The New Commission Guidelines on the Application of Article 81(3): An Economic Approach to Article 81", 25 *European Competition Law Review* 566; Lugard P. and Hancher L. (2004): "Honey, I Shrunk the Article! A Critical Assessment of the Commission's Notice on Article 81(3) of the EC Treaty", 25 *European Competition Law Review* 410.

inside or outside the pool, and the technology in question constitutes a necessary part of the package of technologies for the purposes of producing the product(s) or carrying out the process(es) to which the pool relates. Here the TTG further explain that a technology for which there are no substitutes remains essential as long as the technology is covered by at least one valid intellectual property right, and that a technology that is essential is also necessarily a complement. The creation of a pool composed only of technologies that are essential as such generally falls outside Article 81(1) EC irrespective of the market position of the parties (paragraph 220 TTG). When a pool encompasses non-essential technologies, the pooling agreement is likely to be caught by Article 81(1) EC where the pool has a significant position on any relevant market (paragraph 221 TTG). Paragraph 222 TTG states that the assessment of essentiality is an ongoing process, and that a technology may become non-essential after the creation of the pool due to the emergence of new third party technologies. Paragraph 232 TTG recognizes that the assessment of essentiality is often a complex matter that requires special expertise. The concept of essential patented technologies has been developed in US antitrust policy to identify generally pro-competitive pools.[4] This concept has also been adopted in the EU.[5] The recent *3P3G* comfort letter granted by the European Commission is built on the principle that essentiality, and therefore also non-essentiality, substitutability and the complementary nature of technologies is to be defined in relation to a specific (sub)set of standard specifications.[6]

Most patent pools are created in the context of standardization efforts, whether (semi)public or private. The issue of essentiality therefore often relates to standard specifications. As a consequence, within the group of essential patents a further subgroup can be identified: the group of patents that are infringed 'by definition' when applying the standard in accordance with its specifications. The infringement is 'by definition' because infringement occurs if the text of a patent claim covers one or more mandatory specifications of a standard. Confusingly, this category of essential patents is often identified as 'technically' essential patents.[7] The other category of essential patents consists of 'commercially' or 'practically' essential' patents,

[4] See, e.g., *MPEG-2*, Department of Justice, Antitrust Division Letter of 26 June 1997, available at http://www.usdoj.gov/atr/public/busreview/1170.htm; *DVD-3C*, Department of Justice, Antitrust Division Letter of 16 December 1998, available at http://www.usdoj.gov/atr/public/busreview/2121.htm.; *DVD-6C,* Department of Justice, Antitrust Division Letter of 10 June 1999, available at http://www.usdoj.gov/atr/public/busreview/2485.htm; and *3G3P*, Department of Justice, Antitrust Division Letter of 12 November 2002, available at http://www.usdoj.gov/atr/public/busreview/200455.htm.

[5] *DVD 6C*, Commission press release IP/03/1136 of 31 July 2003 and *CD,* Commission press release IP/03/1152 of 7 August 2003.

[6] See Commission press release IP/02/1651 and *EC Competition Policy Newsletter* 1/2003, pp. 41–43, available at http://europe.eu.int/comm/competition/publications/cpn/cpn2003_1.pdf.

[7] See Letters referred to in supra n. 4, and Beeney (2005), cited in the initial footnote to this contribution.

i.e., patents that concern technologies for which there is no reasonable economic or commercial alternative.[8] This difference is important, as the availability of alternative technologies for patents essential by definition can logically only play a role when (re)defining the standard specifications.[9] However, the TTG do not seem to make a clear distinction between these two types of essentiality: paragraph 216 TTG defines an essential technology as one for which there is no substitute *inside or outside* the pool in question and which constitutes a necessary part of the package of technologies for the purposes of producing the product(s) or carrying out the process(es) to which the pool relates. In its extreme, this definition could expose any pool—ncluding only technologies which are essential 'by definition'—to competition problems as soon as an alternative technology is developed (even if it proves not to be a viable or reasonable substitute in actual practice for at least some licensees). This seems to be at odds with common sense, as reflected in the approach taken in the Horizontal Guidelines with respect to standardisation generally. Patents that are essential 'by definition' are necessary for the purposes of producing the product(s) or carrying out the process(es) to which the pool relates as a consequence of the corresponding definition of the specifications of the standard and the scope of a patent(application), and this characterisation does not change with the emergence of an alternative technology. Therefore, a technology that is essential 'by definition' should not lose this characterisation if a substitute technology emerges, as long as the standard specifications have not been changed. Further clarification in the TTG is urgently necessary, because at least pools including only technologies that *ex ante* were *bona fide* essential 'by definition' should generally not enter the danger zone of Article 81(1) EC as long as the standard specifications concerned remain unchanged.

Of course, the selection of technologies to be (or to remain) included in specific standard specifications as such can raise competition concerns. Assessment thereof is subject to the Commission's *Guidelines on Horizontal Cooperation* ('HCG'),[10] in particular paragraphs 159–178 thereof. These Guidelines focus primarily on the anticompetitive effects of barriers obstructing competitors from participating in setting a standard and from accessing a standard after adoption. Paragraph 168 HCG recognizes that high market shares will not necessarily be a concern for standardization agreements, and paragraph 171 HCG indicates that standards by their nature will not include all possible specifications of technologies. According to the HCG, standardization agreements that do not impose an obligation to comply with the standard and agreements that allow the development of alternative standards are not normally restrictive (see paragraphs 163 and 167

[8] See *supra* n. 4.

[9] Or where a patent application would not result in an identically formulated patent grant.

[10] OJ C 3 [2001], hereinafter referred to as 'HCG'.

HCG). This view was adopted even more clearly by the Department of Justice in its business review letter (BRL) re. American Welding Society of October 7, 2002.[11] Normally, standardization efforts will include a phase where participants will be invited to identify patents that are likely to be infringed when practising the proposed standard. This may lead to strategic behaviour of participants which, under very specific circumstances, may be anticompetitive.[12] The TTG suggest that, in certain cases, it may be more efficient to agree

[11] The Request for this BRL read as follows: "Assuming that the Subcommittee adheres to the procedures mandated by the American National Standards Institute, and assuming the Committee has a reasonable and good faith basis to believe, from a technical standpoint, that ArcLink is preferable as the basis for the specification, we request a statement of the Antitrust Division's current enforcement intentions should the Society proceed with the development of the specification described herein, based on ArcLink rather than DeviceNet, even if adoption of the specification would give Lincoln a competitive advantage and even if the technology within the specification is not currently widely used in the industry." The DOJ answered: "The Department is not in the business of picking winners and losers. We leave that to the marketplace. Our review is not based on whether we think one standard is better or worse than another. We do not bless a standard. Instead in this instance we look to see whether the process of standard-setting has been abused to seek an unfair competitive advantage and whether the proposed standard is the product of any anticompetitive conduct on the part of the organization or its members. Based on the information that you have provided to us, the Department has no present inclination to challenge the Society's adoption of the standard endorsed by its Committee. There is always a possibility that adoption of any standard, by private or public entities, could have some adverse effect on some competitors. To the extent that a product standard gains adherence by producers or consumers those products that fail to comply with the standard may suffer in the market place. However, the courts and antitrust enforcement authorities have recognized that standards can promote consumer welfare by reducing costs and facilitating competitive entry. As a result, the antitrust legality of private standards is determined under a rule of reason analysis in which the potentially anticompetitive effects of a standard are balanced against its potentially beneficial effects. Antitrust enforcement concerns arise only when the former outweigh the latter. The Department's present disinclination to challenge the Society's proposed standard is based on several factors. We are not aware of any evidence that would lead us to conclude that the proposed standard is the product of any anticompetitive conduct on the part of the Society or its members. The Society is made up of producers and consumers of robotic welding systems, and there is little reason to believe that the latter would knowingly deprive themselves of reasonable competitive options. Moreover, this would not appear to be a situation where the Society, without knowledge, has allowed its procedures to be abused by a member seeking an unfair competitive advantage. You indicate that the Society's standard-setting procedures are open and transparent and that its Committee has carefully considered the technological and competitive implications of adopting a standard based on the contending technologies. Moreover, the owner of the intellectual property rights to be incorporated by the proposed standard has agreed to waive such rights in connection with adherence to that standard. In these circumstances, the Department will not presume that the Society and its varied membership have incorrectly determined that the proposed standard would best serve consumer interests."

[12] See *Dell Computer,* 121 FTC 616 (1996); *Rambus v. Infineon Technologies,* No. Civ. A.3: 00CV 524, 2001, WL 913972 (E.D. Va., 9 August 2001). In *Dell Computer*, the US FTC found that Dell had encouraged adoption of the VESA local bus standard while deliberately concealing the existence of a blocking patent and actually stating positively that it had no such IPRs. Dell eventually agreed to a consent decree not to assert its patents. *Dell Computer*, 121 F.T.C. 616, and http://www.ftc.gov/opa/9606/dell2htm. In *Rambus v. Infineon*, Rambus sued Infineon for patent infringement. Infineon successfully counterclaimed on the basis of fraud, pointing out that, in the early 1990s, Rambus had used its membership of the Joint Electron Device Engineering Council (JEDEC), which sets industry wide standards for memory chips, to promote

on the JLA royalty before the standard is chosen and not *ex post*, in order to avoid the possibility that the choice of the standard will confer significant market power on one or more essential technologies (paragraph 225 TTG). Where the pool has a dominant position on the market, royalties and other licensing terms should be fair and non-discriminatory and licences should be non-exclusive (paragraph 226 TTG). This will more likely be the case when all interested parties representing different interests are allowed to participate in the standard and pool creation process (paragraph 231 TTG). For efficiency reasons in actual practice, only important potential contributors and important potential licensees of the technologies to be pooled are invited to participate in a standard creation process. Important potential licensees in this phase may also indicate their wishes as to the (maximum) JLA royalty, but as potential licensees, they are generally not allowed by the contributors to be involved in the actual agreement establishing that royalty and the distribution of the proceeds amongst them. This minimizes the risk of 'inside' JLA licensees being able to obtain better JLA conditions than 'outside' JLA licensees. Of course, this does not preclude the granting of an appropriate additional benefit to early adopters of a JLA which meet certain turnover thresholds in respect of licensed products within a certain period of time after the introduction of the licensed products on the market. This generally will not amount to abusive discrimination because only the early adopters have taken the bigger risk of investing in a standard product or process not yet proven to be successful in the marketplace.

Including only complementary technologies in a pool may not restrict competition between such technologies, but it may nevertheless result in a reduction of innovation by foreclosing alternative technologies, in particular when the pool supports an industry standard or establishes a *de facto* industry standard. The very existence of the standard and the related technology pool may make it more difficult for new and improved technologies to enter the market, but at the same time it can have pro-competitive effects: reduction of transaction costs, avoidance of cumulative royalties to avoid double marginalisation, and one-stop licensing (paragraph 213 TTG). The Guidelines keep rather silent about the relative weight to be given to each of the factors mentioned. The Commission's Notice on Article 81(3) makes clear that the first question to ask is whether the pool restricts or restricted competition that would have existed in the absence of the pool. However, the Notice also indicates that contributors to a pool not involving a hard core arrangement

a Synchronous DRAM standard while at the same time amending its patent applications to cover the JEDEC SDRAM specifications. The JEDEC IPR policy requires declaration of known essential patents by its members. Such a declaration by Rambus would likely have resulted in a different standard being designed to avoid the Rambus patent. After 1996, Rambus withdrew from JEDEC, but still managed to obtain further information on standard development. In May 2001, Rambus' infringement claims were rejected, and this was followed by a jury verdict in favor of Infineon and an order requiring Rambus to pay Infineon's attorney fees. Rambus was permanently barred from suing Infineon for patent infringement.

but nevertheless found to infringe Article 81(1) EC would not have an easy task convincing an enforcing authority or court that the pool is legal under Article 81(3) EC. All efforts should therefore be made to prevent a pool from infringing Article 81(1) EC in the first place.[13]

After a standard has been adopted and implemented, one or more technologies may emerge as an alternative or substitute to one or more practically[14] essential technologies included in a pool. Paragraph 222 TTG makes clear that the assessment of essentiality is an ongoing process. Here the TTG suggest that one way to ensure that such new technologies are not foreclosed is to exclude from the pool technologies that have become non-essential. In legacy pools, this is often hardly feasible. JLAs have been offered and accepted covering the patents then practically essential, for a certain royalty agreed by all patent contributors and each licensee. A JLA reflects the desire of licensees to obtain maximal insurance that they will not be confronted with infringements actions initiated by any of the pool contributors after having sunk their investments in making the standard product a success in the marketplace. Most JLA licensees will purchase equipment necessary for production of licensed products which often will incorporate or use all essential technologies included in the pool. Emergence of a new alternative for previously practically essential technologies will normally lead to incorporation thereof in such equipment or adoption by JLA licensees over time if the new alternative is likely to provide additional appreciable economic benefits to them. One should also take into account another relevant dynamic aspect: contributors of practically essential patents should be duly rewarded for making said patents available through the JLA in the first place; they could have decided to wait and see—to remain outside the JLA and to use their practically blocking position against JLA licensees after the latter have invested in the new standard product. This blocking power might be such as to stifle such investments and, consequently, to stifle the successful introduction of the new standard product.

If contributors to the pool know that a technology would have to be excluded from the JLA as soon as a substitute technology is developed, they would want to ensure that the owner of such excluded technology would still be paid a royalty for the continuing actual use of his technology. Many legacy JLAs have a JLA royalty independent of the actual number of essential patents contributed by each owner. That reflects the blocking power each contributor can derive from any of the pertinent claims of its patents concerned, which is not dependent on the number of essential patents or even the number of essential patent claims he owns. The *ex post* exclusion of an allegedly no longer essential patent from a pool as such normally does not have an impact on the blocking power of said contributor as long as he still

[13] See the recent literature cited in the initial footnote to this contribution..

[14] As to technologies essential ‘by definition’, see above.

owns another essential technology included in the pool, and therefore will not have an impact on the level of the JLA royalty. Accordingly, the Commission has accepted an arrangement whereby previously essential technologies that had become non-essential were made available to JLA licensees for free as an option in addition to the (remaining) essential patents in the pool, without requiring a reduction of the royalty for the latter patents.[15] Such a solution may not decrease the potential or actual foreclosure of a new alternative component technology from the relevant technology market(s). However, access to the distribution channel offered by the JLA, by inclusion of the alternative technology in the JLA, would only be required in extreme circumstances such as those identified in the *Bronner* judgment of the European Court of Justice.[16] Where a JLA is not an essential facility for distribution of the alternative component technology concerned, e.g., where this alternative technology could also be used for inclusion or use in products competing in other product markets, would exclusion of the previously practically essential but now alternative component technology from the pool indeed be necessary to safeguard competition in the relevant technology market(s)? I would suggest that, in most cases, that would not be the case – in particular when the *Bronner* judgment is read as applying an 'as efficient competitor' test with respect to the question of whether a distribution channel cannot be reasonably duplicated.[17]

Another solution may be possible if, from the start, a JLA makes a distinction between technologies essential 'by definition' and technologies that are practically essential, and if the latter are options in the JLA, each of which attracts a separate royalty and each of which could be terminated after a specific period of time agreed by the parties. This structure would reflect the fact that the blocking power of each 'practically essential' technology is less abstract from actual developments in the relevant technology markets than the blocking power of technologies which are essential 'by definition'. Emergence of a new alternative to a practically essential component technology could then have its due competitive impact without creating uncertainty as to the legality of the JLA as a whole, and without compromising the availability of the original practically essential patents on commercial conditions known from the outset.

[15] See, e.g., Commission Press Release IP/03/1152 of 7 August 2003: "Commission clears Philips/Sony CD Licensing Program". The technologies were excluded from the pool (and its various packages for different applications) but were in the future optionally available free of charge for any compliant JLA licensee. All were component technologies complementary *inter se* and not important for the standard products.

[16] Case C-7/97 *Oscar Bronner GmbH 7 Co. KG v Mediaprint Zeitungs* [1998] ECR I-7791.

[17] *Id.*, para. 46.

III

*Hanns Ullrich**

Patent Pools: Approaching a Patent Law Problem *Via* Competition Policy

A. Introduction

Patent pools are no new phenomena. They have existed in almost all innovation-driven and patent-minded industries, and they have been examined both as forms of industrial organization and as subjects of antitrust law concern at various times.[1] Curiously enough, as a result of the poor reputation they had acquired in the 30s and 40s of the last century for being a natural home for price fixing and market division, in practice they either lost importance or interest. Formal enforcement became rare, at least in the EU.[2] The recent reform of EU enforcement policy regarding technology licensing, however, gave rise to a *rinascimento* of technology pools as poles for the centralization of licensing transactions.[3] As such, they have been welcomed, but also—and for the first time in EU competition law—they have been subject to a systematic framework of antitrust law analysis.[4] Whilst the new, economics-based antitrust learning underlying the reform in general has also paved the way for a fresh approach to patent pools, the reasons for their *rinascimento*

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[1] Recently, see Merges P. R. (2001): "Institutions for Intellectual Property Transactions: The Case of Patent Pools" in Dreyfuss R., Zimmerman D. P. and First H., eds., *Expanding the Boundaries of Intellectual Property*, Oxford University Press, Oxford, at p. 123; Folz C. H. (2002): *Technologiegemeinschaften und Gruppenfreistellung*, Carl Heimanns Verlag KG, Cologne, 236 *et seq*., 421 *et seq*., 502 *et seq*.; Schulte H. J. (1971): *Lizenzaustauschverträge und Patentgemeinschaften im amerikanischen und deutschen Recht*, Athenäum-Verl, Frankfurt, 92 *et seq*.; Kronstein H. (1967): *Das Recht der internationalen Kartelle*, J. Schweitzer Verlag, Berlin, 183 *et seq*., 187 *et seq*.; Neumeier F. (1932): *Patentgemeinschaften und deren Aufbau bei amerikanischen Industrieverbänden*, Marburg.

[2] See European Commission (1981): *11th Report on Competition Policy*, at point 93 (*Concast/Mannesmann*); *id*., point 94 (*IGR-Stereo TV,* again in *14 th Report on Competition Policy* (1984), point 92); see also Notice under Article 19 para 3 Reg. 17/62 in Case IV/34.796—*Canon/Kodak*; as to the German practice, see references in Ullrich H. (2004): "Patentgemeinschaften", in *Festschrift für Ullrich Immenga*, Munich, 403.

[3] See European Commission (2001): *Technology Transfer Agreements under Article 81: Evaluation Report on the Transfer of Technology Block Exemption Regulation No. 240/96*, Brussels, sub 5.1.4 (points 132 *et seq*.), available at http://europa.eu.int/comm/competition/antitrust/technology_transfer/en.pdf.

[4] *Guidelines on the application of Article 81 of the Treaty to technology transfer agreements*, OJ C 101 [2004], paras. 41 and 210 *et seq*. (hereafter "TT-Guidelines").

are more complex: technology pool-building typically is a companion of the development of new systems, which in turn are characteristic of the informatics revolution. As the development of new systems technologies is a recurrent phenomenon, one should, however, wonder why the pooling of patents is neither well recognized nor well regulated. Put that way, the problem appears to be primarily one of patent law. After all, it is patent law which defines the titles and the terms of the transactions. In fact, part of the problem and the reason for the new awareness of its existence may be that patent protection—or, more generally, intellectual property—is granted too easily and too broadly for the new informatics technologies (and for biotechnologies), thus creating ever more conflicts and dependencies between titles without providing for at least a default mechanism for their resolution.

It is in this perspective that I shall attempt to approach patent pools, first, by pointing to what I think are systematic weaknesses in the EU's new framework for a competition law analysis of them, and secondly, by suggesting the introduction of technology-access rules in patent law. Indeed, I believe that we are faced with a systems problem, which results from the irreversible extension of intellectual property to ever more interdependent knowledge.

B. Technology Pools Under EU Competition Law (Article 81 EC Treaty)

1. The analytical framework

When reforming Block Exemption Regulation 240/96 on Technology Transfer Agreements,[5] the Commission has decided to keep patent pools outside the block exemption mechanism altogether so as to avoid the ill-suited distinction between bilateral and multilateral agreements imposed by Article 1(1) of Regulation 19/65.[6] To this effect, patent pools have been distinguished from licensing agreements, including cross-licensing agreements, as not involving a (direct) consent to exploit the licensed technology by production, but as being limited to a stipulation on whether to grant licences to third parties, and on the conditions of such (future) grants.[7] Yet this is not merely a legal 'trick' allowing a unitary legal statute for all patent

[5] OJ L 31 [1996].

[6] See Commission, *Evaluation Report*, *supra* n. 3, at points 132, 135 and 136.

[7] See Recital 7 of *Commission Regulation 772/2004 on the application of Article 81 (3) of the Treaty to categories of technology transfer agreements*, OJ L 123 [2004] (hereafter "TTBER"); TT-Guidelines, at point 41.

pools, however uncomfortable.[8] Rather it entails consequences of substantive law:

1.1. The internal relation: cross-licensing and pool-building

First, the pooling agreement between the parties must be separated from the cross-licensing agreement which they most likely must conclude at the same time.[9] The former concerns the conditions on which parties are jointly willing to grant licences to third parties. It involves building a package of rights for licensing, and it relates to the technology market. The latter refers to the production and/or distribution rights which the parties grant each other, and so it relates to the relevant product market. Both are economically highly interdependent, but legally they are separated as if they were independent from each other. Indeed, it is difficult to see how a licensing right under a cross-licensing scheme may be negotiated without regard to what licenses will be accorded to third parties under the pool arrangement, and vice versa. But the cross-licensing agreement, if bilateral, will be covered by the TTBER, and if multilateral, will be treated the same by analogy.[10] This means that, on the one hand, the highly ambiguous distinction between vertical and horizontal licensing becomes a decisive factor,[11] and, on the other, that the reciprocity link, which is typical for a pooling arrangement, will limit the stipulations that are available internally.[12] However, since the modernization of the enforcement of Article 81 EC (see Article 1 of Regulation 1/2003) means that the block exemption is no longer a real limit to the legality of the agreement,[13] the very question which the new approach seeks to avoid now lurks in the background: What about non-block exempted cross-licensing agreements without which the parties would not have entered into the pooling agreement for the benefit of third parties in the first place? Put differently, could the benefits of the pool not justify some more restrictive cross-licensing agreements as a matter of applying the indispensability test of Article 81(3) EC to the overall agreement?[14]

[8] The increased risk of self-assessment or the legal uncertainty associated with a mere 'Guidelines status' may be acceptable as such, given that most pools are established by 'big enterprises'.

[9] This is assumed by Commission, TT-Guidelines, para. 210.

[10] Commission, TT-Guidelines, para. 40.

[11] See Article 3(1)(2), Article 4 (1), (2) (3), Article 5(2); TT-Guidelines, paras. 26 *et seq.*, with the awkward assumption, at para. 32, that parties owning mutually blocking patents are, for that reason, non-competitors on the technology market. Common sense commands the opposite result (irrespective of that, most of the time, the parties will be competitors on the product market).

[12] Article 4(1)(c)(ii), (iv), (vi) and (vii) of Regulation 772/2004.

[13] See BGH of July 13, 2004, GRUR Int 2004, 152—*Citroen.*

[14] This problem apparently was in the Commission's mind when, in the published draft of the TT-Guidelines, it stated in paragraph 211 that, if the partners owned blocking patents, this alone could not normally justify pool-building as it could suffice for them to enter into a cross-licensing

1.2. The external dimension I: the effects of pool-building on competition

Second, as regards pool-building in view of joint third-party licensing, an analytical framework is set up which, on one the hand, recognizes the pro-competitive effects of pools, namely reduction of transaction costs and limitation of cumulative royalties,[15] and, on the other should help to exclude or at least to reduce restrictive practices. Potential anticompetitive effects are—somewhat unsystematically—seen to arise in the form of the following three risks: price fixing on the technology market, reduction of technological competition between the parties and of innovation,[16] and collective bundling.[17] Four lines of defence against such risks are established:

(a) The first line is drawn along the twofold distinction between complementary and substitute technologies and between essential and non-essential technologies, with essential technology always being complementary, whilst complementary technology need not to be essential.[18] Pools which are only composed of essential technologies are held to be per se valid under Article 81(1) EC unless licensing conditions are objectionable.[19] The inclusion of substitute technologies brings the pool within the ambit of Article 81(1) EC and precludes the pool from benefiting from Article 81(3) EC, at least if these substitute technologies constitute a significant part of a pooled technology.[20] In this regard, it is immaterial whether or not the parties remain free to individually grant licences, as this is unlikely to occur. However, if complementary patents of a non-essential nature are included and Article 81(1) EC therefore becomes applicable because of collective bundling,[21] Article 81(3) EC may be available,[22] and apparently Article 81(3) EC also becomes so available when the nature of the pooled technology is ambivalent

agreement (available at http://europa.eu.int/comm/competition/antitrust/legislation/draft_technology/guidelines). The paragraph was subsequently deleted, but the blocking situation between partners will also exist for their licensees, and may also therefore be a motivation for pool-building where licensing is necessary to exploit the systems technology.

[15] TT-Guidelines, paras. 214, 217.

[16] TT-Guidelines, paras. 213, 219; reduction of competition between the parties would appear to result less from pooling than from internal cross-licensing.

[17] TT-Guidelines, para. 219.

[18] TT-Guidelines, para. 215 *et seq*.

[19] TT-Guidelines, para. 220. As to the licence conditions, see text sub (ii).

[20] TT-Guidelines, para. 219; the draft text (*supra* n. 14) did not contain the qualifying language “significant extent” (see para. 212 of the draft).

[21] TT-Guidelines, para. 221 additionally makes the application of Article 81 (1) EC dependent on the existence of significant market power, without specifying what this term means (arguably, significant market power in this context has the same meaning found in para. 27 *et seq* and 36 of the *Horizontal Guidelines* (OJ C 3 [2001]).

[22] TT-Guidelines, paras. 221, 222.

(substitutive in part and complementary in part) or changes over time (from essentiality to non-essentiality).[23]

(b) It is apparently with respect to these Article 81(3) EC candidates that the second line of defence has been set up. It first concerns the obvious, namely the issue of whether there are pro-competitive reasons for including non-essential technologies in the pool.[24] However, it is not specified whether and in which respect these effects must be different from the general advantages of pooling, i.e., the simple saving of transaction costs. Conversely, as the risks of anticompetitive effects (including foreclosure of third-party technologies and of alternative pools) increase with the existence of market power, pools that hold a strong position on the market should be open and non-discriminatory.[25]

1.3. The external dimension II: controlling third-party licensing

Risks of foreclosure point to the third line of defence. It is built precisely on the third layer of technology pools, which is third-party licensing. Thus, pools should follow rules of licensing which limit its impact on the technology market and/or on the licensees' freedom of choice, such as by allowing individual licensing by pool partners, by granting separate licences in case there are different fields of use, by licensing limited packages out of the pool at reduced royalty rates, and by providing for rules of contract termination which allow licensees to switch in due time to new technologies as they become available.[26] Whilst, in general and even in case of standard-supporting pools, royalty setting is considered to be a matter of free decision by pool members or of negotiation with third parties,[27] market-dominating pools are required to practise fair and non-discriminatory terms of licensing, including royalty setting, and they may not grant exclusive licences.[28] Unequal treatment of pool members and of third parties as regards licence conditions is regarded as discriminatory where both are present on the same product market.[29]

Conversely, licensees may be required not to block the pool by their own improvements. However, corresponding grant-back obligations must be limited to important (as distinguished from non-essential!) improvements,

[23] TT-Guidelines, paras. 218, 222.

[24] TT-Guidelines, para. 222(a).

[25] TT-Guidelines, para. 224; it is unclear whether openness means access to licences or admission to membership.

[26] TT-Guidelines, para. 222(b)–(d); note that the Guidelines do not systematically distinguish the various levels of the building and operating of pools.

[27] TT-Guidelines, para. 225, recommending royalty setting before choosing a standard (so as to avoid market power effects).

[28] TT-Guidelines, para. 226; however, different royalties for different uses are permitted.

[29] Same as n. 28; for a critique, see *infra* sub 2 (a) (iii).

and they may not be exclusive.[30] Likewise, the pool's effect on the market may not be reinforced by the imposition of non-compete clauses on either partners or third parties.[31] Finally, the right to terminate a licence in case a licensee brings an invalidity charge must be limited to the technologies of the partner whose patents have been challenged.[32]

These three[33] lines of defence against anticompetitive technology pools look impressive. How strong they really are is a matter of detailed analysis.[34] The fact that, as regards third-party licensing, the block exemption regulation for technology transfer transactions remains fully applicable shows that the pool retains broad powers of control over its licensees.[35] This remains true even if, as is quite likely at least with respect to horizontal relations, the market share threshold set by Article 4 of Regulation 772/2004 will frequently be exceeded. Indeed, it has been stated explicitly that larger market shares do not necessarily mean that the criteria for assessing the third-party licensing relations will change.[36] In addition, the assumption still remains that the relationship is of bilateral nature. Thus, the most salient feature is held to be immaterial, which is the circumstance that, typically, a pool's licensing relations do not only involve parallel licensing to a great number of licensees, but also parallel licensing by two or more licensors, partners of the pool, who, in addition, may be more or less direct competitors. This characteristic feature not only points to the limits of assessing third-party licensing in terms of individual and independent transactions—even the emergency brake of Article 6 of Regulation 772/2004 relating to networks of parallel licences may not be pulled, as this would mean questioning the very idea of pools!—but it also reveals the broad scope of private market regulation which pools potentially establish.

[30] TT-Guidelines, para. 228.

[31] TT-Guidelines, para. 227.

[32] TT-Guidelines, para. 229; note that the right to terminate is not limited to the exclusive right in question, but extends to all the rights of a given partner of the pool. Note also that the essentiality requirement for the building of the pool means that the challenging licensee is faced with the risk of being unable to work the pool technology altogether if the challenge fails.

[33] As to the fourth line of defence, i.e., the imposition of organizational requirements for the pool, see *infra* C.1.

[34] See *supra* n. 32.

[35] TT-Guidelines, para. 223; thus, with the exception of price fixing, various kinds of field-of-use restrictions and territorial limitations and even (non-reciprocal) output restrictions remain permissible, albeit with reservations depending on the horizontal or the vertical nature of the licence (see Article 4(1)(2) of Regulation 772/2004). Of course, technical and quality specifications, supply or service tying, labelling requirements and minimum royalties or quantities may also be stipulated.

[36] See recital 12 of Regulation 772/2004; TT-Guidelines, para. 37.

2. Analysing the framework

2.1. The tests

In essence, the analytical framework for assessing technology pools under Article 81 mirrors the practice which the Commission recently developed as regards pool-building in the electronic/informatics industry.[37] As these pools were subject to review by the US Department of Justice either beforehand or contemporaneously,[38] the Commission followed the—implicit—invitation to adopt the standards established by the US Department of Justice[39] by way of what an intellectual property lawyer might be tempted to call slavish imitation. Before addressing the obvious question of whether such copying is acceptable in view of the differences between Section 1 of the Sherman Act and Article 81 EC,[40] a short look at the quality of the original and of the copy may be revealing.

(a) Both the US and the EU practice have been concerned with patent pools only. The Commission's Guidelines, however, expressly extend their analytical framework to technology pools, meaning pools that cover "patent applications and intellectual property rights other than patents".[41] Leaving aside forms of intellectual property which typically are not the

[37] Commission Press Release of October 9, 2000 (IP/00/1135), "Commission authorizes agreement on the grant of DVD patent licenses". See also the notification in OJ C 242 [1999]; Commission Press Release of November 12, 2002 (IP/02/1651), "Antitrust clearance for licensing of patents for third generation mobile services", and Choumeleva D. (2003): "Competition Law Analysis of Patent Licensing Arrangements—The Particular Case of 3G3P" 1 *Competition Policy Newsletter* 41; Castellot P. (2003):"Commission Settles Allegations of Abuse and Clears Patent Pools in the CD Market", 3 *Competition Policy Newsletter* 56; Commission Press Release of 7 August 2003 (IP/03/1152), "Commission clears Philips/Sony CD Licensing Program", and see the Licensing Agreement and the patent list available at http://www.licensing-philips.com/licensees/conditions/ed/documents868. It is therefore an open question whether the analytical framework of the Commission's TT-Guidelines fits pool-building in other areas, such as in the biotechnology industry with its propensity for broad patent claims.

[38] US Department of Justice, Business review letter of 26.06.1997 relating to the MPEG-2 standard; business review letter of 16.12.1998 relating to the DVD-ROM and DVD-Video Formats (Hitachi/Matsushita/Mitsubishi *et al.*); business review letter of 12.12.2002 relating to the IMPT-2000 Family of 3G Standards (3G Patent Platform Partnership), all available at http://www.usdoc.gov/atr/pubdocs/busreview.

[39] See in particular US Department of Justice, Business review letter MPEG-2, *supra* n. 38, which elaborates on the assessment criteria established by US Department of Justice and the Federal Trade Commission in the *Guidelines for Licensing of Intellectual Property* (1995), sub 5.5 (Trade Reg. Rep. (CCH) 13.132).

[40] *See infra* sub. (c).

[41] TT-Guidelines, para. 216 with note 69. However, the terminology, is not consistently used (e.g., TT-Guidelines para. 221 refers to "complementary patents"), suggesting that the Guidelines have been conceived with a view to patent pools. The US DOJ/FTC Guidelines on licensing, cited at *supra* n. 39, also apply indiscriminately to all kinds of intellectual property.

subject of pool-building, such as trademarks, and also leaving aside differences in the politico-economic rationale between the various forms of intellectual property (and between US and EU intellectual property law), the generalization made by the Guidelines assumes that all forms of intellectual property operate in the same way. However, that is not true for precisely that form of intellectual property which most likely is involved in pool-building in the informatics industry, namely copyright for software.[42] Indeed, copyright may cover the pooled technology either cumulatively or alternatively to patents.[43] But it does not have the same blocking or exclusivity effect since it does not follow the principle of priority nor cover software as regards its technological content. Therefore, as a matter of principle, copyright technology should never qualify as essential. It is true that, due to the extended scope of software protection for software, copyright may de facto operate as a protection of the technological contents of software, which must be overcome by reverse engineering, but may be so overcome only within narrow legal limits and at unreasonable cost.[44] However, if a copyrighted technology were qualified as essential on that ground, the essentiality requirement would be relaxed to the point of being an 'economic feasibility' test. The US practice does indeed accept such an approach, albeit not without being subject to criticism,[45] whilst the

[42] In other industries it may be design protection. Whilst in general it may be hard to qualify the subject matter of design protection as 'essential', since design protection is granted only to product configurations which are not dictated by technical function (see Article 7(1) *of Directive 98/71/EC on the legal protection of designs*, OJ L 289 [1998]; Article 8(1) of *Council Regulation 6/2002 on the Community Design*, OJ L 3 [2002]), design protection for components of products may cover essential features of products: see the 'must fit/must match' problem (Articles 7(2) and 14 of the Design Directive and Articles 8(2) and 110 of the Community Design Regulation). This highly controversial matter cannot be examined here. See European Commission (2004): *Proposal for a Directive of the European Parliament and the Council amending Directive 98/71/EC on the legal protection of designs*, COM (2004) 582 final of September 9, 2004.

[43] Patent protection for software differs considerably between the US an the EU, where the issue of whether and to what extent protection may be extended beyond computer-implemented inventions (see Ghidini G. and Arezzo E. (2005): "Patent and Copyright Paradigms *vis-à-vis* Derivative Innovation: The Case of Computer Programs", 36 *IIC* 159; Pila J. (2005): "Dispute over the Meaning of "Invention" in Article 52 (2) EPC—The Patentability of Computer-Implemented Innovations in Europe", 36 *IIC* 173. As a consequence, internationally operating pools may have to rely on copyright protection as a default position, which makes it all the more interesting to know whether 'essentiality' can be determined regardless of the form of IP protection.

[44] See Articles 5 (3) and 6 of *Council Directive 91/250 on the legal protection of computer programs*, OJ L 122 [1991]. Again US and EU law differ considerably.

[45] US Dept. of Justice, Business review letter DVD-ROM and DVD-Video Formats Philips/Sony/Pioneer, available at: http://www.usdoj.gov/atr/public/busreview/2121.htm, sub n. 8 and text at n. 51; business review letter DVD-ROM and DVD-Video Formats Hitachi/Matsushita/Mitsubishi *et al.* (*supra* n. 38), text at n. 65. Joint Hearings on Competition and Intellectual Property Law and Policy in the Knowledge-based Economy, April 17, 2002 (http://www.ftc.gov/opp/intellect/detail_and_participants). Statements of Fromm and Morse *contra* Beeney G. (2002): "Procompetitive Aspects of Intellectual Property Pools: A Proposal for Safe Harbor Provisions", April 17, 2002, Hr'g R., text available at http://www.ftc.gov/opp/intellect/020417garrardrbeeney.pdf. .

Commission's TT-Guidelines, for good reason, seem to exclude such a broad concept of essentiality. On the one hand, even a purely legal (patent law) approach to determining essentiality is by no means definite and reliable, since claim interpretation varies from country to country and may be rather flexible.[46] On the other hand, an economic feasibility test is not only vague by nature[47] but it also discriminates against the more competitive licensees in that individual techno-economic capability and capacity will be disregarded.

(b) No less troubling is that, in the Commission's analytical framework, the essentiality criterion is not absolute but refers to a sort of open-ended sliding scale. This contrasts with the USA, where essentiality is determined by reference to the technical requirements set by a standard, meaning technical specifications which, in view of any standard's objective to enhance the acceptance of a technology by harmonization of its elements and interfaces, relate to one or more core features of a system or of a full line or class of products or processes. In the EU, however, essentiality is determined by reference to any technology, broad or small, and to any given product or process configuration around which parties may wish to establish a pool. However, the more the pool technology as such is or might become subject to competition by alternative technologies, the more the essentiality criterion will tend to lose its selective effect. Indeed, the test of substitutability of complementary or other related technologies by reference to a pool's essential technology (internal substitutability) will become meaningless as the essential technology itself becomes substitutable by comparison to other technologies (external substitutability). Essentiality as a criterion for distinguishing between pro- and anticompetitive pools has simply been conceived as a dividing line between technologies within a pool, and not as a means for distinguishing between the pools. If any technology could be made 'essential' with regard to a given pooling project, the question naturally will arise whether pool building is required at all. Of course, such pools, even if small, may produce some synergies. But they cannot generally be justified as a matter of facilitating third-party licensing by reducing transaction costs. In the absence of a standard, there is no need to adhere to a particular technology, and whatever savings will result from dealing with one pool only, they will be offset by the costs of choosing the right pool. This is not to say that pools covering 'essential' technologies may exist

[46] The US Department of Justice, in Business review letter JMT-2002 Family of 3G standards (*supra* n. 38), text at n. 27, considers technical essentiality to exist even if only one claim under a patent is essential, but does not clarify whether essentiality is then limited to that claim, meaning that arguably the pool may cover the entire patent.

[47] This vagueness would render the objectivity of determining essentially meaningless. The TT-Guidelines (sub no. 225, 232 *et seq.*), in accordance with US practice, seek to ensure such objectivity by requiring the pool partners to use independent expert advice.

and be effective only if based on de iure or de facto industry-wide standards. But it should be clear that the Commission's analytical framework really has been modelled so as to fit complex new technologies whose accumulation and combination may form the nucleus of technology pools that are aimed at dominating the market.

(c) Moreover, some of the mitigating factors[48] may not produce all the redeeming effects attributed to them. Thus, equal treatment of pool members and third parties as regards the licence terms really will only be practised easily if the pool has an interest of its own in attracting licensees on equal and/or favourable conditions. A typical example is presented by pools that wish to establish a system's technology standard, because then any royalties foregone will be compensated for by the enlarged market opportunities for pool members. However, in other cases, prior internal cross-licensing, possibly including the licensing of know-how, will provide a way around the non-discrimination rule,[49] quite apart from the fact that, from an economic perspective, the basis for such a rule is difficult to see. The pool members have joined together with a view to obtaining an advantage on the market; at least in dealing with their competitors they are likely to insist on keeping some of this competitive advantage.

Likewise, the pool members' reserved right to grant licences individually will hardly ever present a realistic alternative. On the one hand, the potential licensee must have sufficient technological potential and economic power to make individual negotiations effective. On the other hand, it is precisely the reason which makes the pool attractive that stands in the way of individual negotiations, namely, the avoidance of transaction costs.[50] Again, a similar argument defeats the good intentions of requiring grant-back agreements to be non-exclusive. Whether exclusive or not, grant-backs enhance the advantage of the pool not only for pool members but also for the licensees agreeing to the grant-back, since the improvements become part of the pool's centralized, cost-saving licensing procedure. The attractiveness of the pool is increased. In fact, pools have an irresistible tendency to grow[51] as the system technology, whose introduction they serve, comes to be ever better installed.

[48] *Supra* 1(c).

[49] See statements of Festa, Morse, and Fromm, in DOJ/FTC Hearings, *supra* n. 45.

[50] See statements of Morse, in DOJ/FTC Hearings, *supra* n. 45.

[51] See Merges, *supra* n. 1, at 133 *et seq*. For example, the MPEG-2 portfolio has grown from 27 essential patens to 550, which are composed of 118 patent families in the USA (plus those in other countries), but the MPEG group encompasses yet other, related pools (MPEG-4 Visual; MPEG-4 Systems; see http://www.mpeg.com/news and see the links to these other pools). Such pool families are not unusual.

2.2. Deficits

Community competition law will not necessarily prevent such growth. Whilst it is suggested that the transformation of essential technologies into substitute technologies which technological progress brings about should typically give reason to regularly control the composition of the pool—ideally by mandating a neutral technical expert[52]—this is not considered to be the only way to ensure that third party technologies are not foreclosed.[53] Rather, the general criteria for assessing pools under Article 81(3) EC are held to be sufficient.[54] Furthermore, the creation of market power is obviously not really a concern for the Community, as it is precisely (and only) in cases of market power that the rule of equal treatment of pool partners as licensees and third-party licensees must apply.[55] Frequently, however, technology pools result from and/or go together with the partners cooperating in research and development in the area of the pooled technology.[56] Not only does this result in a know-how advantage over the licensees of the pool, which undercuts the non-discrimination rule since the know-how reaches beyond essentiality and, in fact, beyond third-party licensing of industrial property rights by the pool.[57] Rather, but cooperation also allows the partners to maintain the technological lead in the development of essential technology, and to use the pool as a means to link suppliers and users to their systems technology.[58]

Both of these circumstances—the conduct of joint research and development and the systemic nature of the pooled technology[59]—call for a more

[52] TT-Guidelines, para. 232.

[53] *Id.*, para. 222.

[54] *Supra,* 1(b)(ii) and (c).

[55] *Supra*, 1 (c).

[56] Such was the case regarding the development and pooling of DVD technology and of CD Discs. See references in *supra* n. 37. The combination of joint research and development and of technology pooling raises questions regarding the relationship between the principles established in the TT-Guidelines and *Commission Regulation 2659/2000 on the application of Article 81(3) EC to categories of agreements on research and development* (OJ L 304 [2000]) which are not fully explained by Commission in the relevant paragraph of the TT-Guidelines, namely para. 60: since the R&D-partners may jointly decide on the grant of licences to third parties (Articles 1(1)(a) and (b); Articles 2(8) and (11) of Regulation 2659/2000), they necessarily must take a decision on the conditions on which to grant a licence to third parties (which licence is then governed by the TTBER). This decision could extend to non-essential patents. The scope of the block exemption has always been controversial as regards the joint licensing of cooperative R&D-results. See Ch. Folz, *supra* n. 1, at pp. 493 *et seq.* with references.

[57] Even in the absence of a legal duty of a pool to grant non-discriminatory access to licences, its policy of licensing industry-wide as a matter of disseminating a system technology or a standard would stand in the way of maintaining trade secret protection over technological know-how. Access to pooled know-how therefore raises the question of access to the pool itself. See text accompanying *infra* n. 62.

[58] Such systems-based technology pools act as marketing-oriented distributors of licences. See the home pages of MPEGLA or of Philips for DVD and for CD Discs, cited in *supra* nos. 37 and 51.

[59] The link which may exist between systems technology, standardization and industrial property will not be examined here. See Schallop M. J. (2000): "The IPR Paradox: Leveraging

differentiated approach to patent pools,[60] with more attention being devoted to their effects on competition rather than only to the control of the exercise of existing or collectively acquired market power. Equal treatment should be required as a remedy to control the overall distortion of competition resulting from the pool partners' long-term collective action,[61] and it should be required independently of the existence of market power, since most of the time market power will not be established by the creation of the pool as such but only as a result of the pool's successful operation. Moreover, if the pool really creates market power, the proper issue may not be equal treatment of licensees, but admission of new members to the pool on equal terms,[62] with the ensuing questions of how system innovation and system rivalry is to be established or maintained as a genuine market process, and whether and how these may be distinguished from other forms of technological competition.[63]

2.3. Competition law or competition policy?

(a) In sum, a critical look at the Community's competition law framework for assessing technology pools confirms the general trend toward adapting the rules to a competition policy which, apparently for the sake of not

Intellectual Property Rights to Encourage Interoperability in the Network Computing Age", 28 *AIPLA Quarterly Journal* 195, 251 *et seq.* and 267 *et seq.*; Ohana G., Hansen M. and Shah O. (2003): "Disclosure and Negotiation of Licensing Terms Prior to Adoption of Industry Standards: Preventing Another Patent Ambush?", 24 *European Competition Law Review* 644; Lea G. and Hall P. (2004): "Standards and Intellectual Property Rights: An Economic and Legal Appraisal", 16 *Information Economics and Policy* 67, sub. 5; Lee N. (2005): "Proprietary Standards and Patent Law" (2005) in N Bruun, ed., *Intellectual Property Beyond Rights*, Helsinki, 159, all with references.

[60] The failure of Commission to clearly distinguish in the TT-Guidelines (see para. 211) between standard-related pools and other kinds of pools has already been noted (see *supra,* (a)(ii)). Pools relating to biotechnology again present specific problems, and, more generally, 'mega pools' and 'mini pools' have different objectives and modes of operation. See Merges, *supra* note no. 1, at 133 *et seq.*, and, following Merges' distinction, Charles River Associates Ltd. (2003): *Report on Multiparty Licensing*, at 13 *et seq.* (report submitted to the Commission, DG Competition, available at http://europa.eu.int/comm/competition/antitrust/legislation/multiparty_licensing).

[61] Under Section 20(1)(2nd alt.) of the German Act Against Restrictions of Competition, lawful cartels (i.e., those that have been legalized) are subject to the same non-discrimination rules that apply to dominant enterprises.

[62] See Koenig C. and Neumann A. (2003): "Standardisierung und EG-Wettbewerbsrecht—ist bei vertrauenswürdigen Systemumgebungen wettbewerbspolitisches Misstrauen angebracht?“, *Wirtschaft und Wettbewerb at* 1138, 1143, 1145.

[63] As regards competition for innovative standards, see Langlois R. (2001): "Technological Standards, Innovation and Essential Facilities", in Ellig J., ed., *Dynamic Competition and Public Policy: Technology, Innovation and Antitrust Issues*, Cambridge University Press, Cambridge, 193; Grandal H. (2002): "Compatibility, Standardization and Network Effects: Some Policy Implications", 18 *Oxford Review of Economic Policy* 80; Charles River Associates, *supra* n. 60, at 83 *et seq.*; Anton J. and Yao D. (1995); "Standard-Setting Consortia, Antitrust and High-Technology Industries", 64 *Antitrust Law Journal* 247; Monopolkommission (1992); *Hauptgutachten 1990/1991,* Nomos, Baden-Baden, nos. 811 *et seq.* and 841 *et seq.*

exposing globally acting enterprises to territorially divergent sets of rules, closely follows the economics-based concepts that have been developed in the US under much less structured legal provisions.[64] Thus, the twofold distinction between essential and non-essential, and complementary and substitutive technologies are really generalized substitutes for the indispensability test required by Article 81(3) EC. In fact, however, they are used to reach a per se legality position under Article 81(1) EC. Yet such truncating of the analysis leaves essential questions unanswered. On the one hand, no investigation is made as to whether, in view of the nature of the new technology, its origin and its potential for exploitation, building a pool, and building it in the form it is built, is in fact indispensable. After all, facilitating joint exploitation of industrial property means promoting the development of complementary technology and pool-building, which thus invites cooperation and joint development in the first place rather than independent creation of self-contained technologies.[65]

On the other hand, substantial interdependencies are neglected that may exist between internal cross-licensing and pooling for third-party licensing[66] or between the pooling of technologies and the conditions on which the partners are willing to exploit and to grant licences. In particular, no examination is made of the question of what kind of licensing conditions are actually necessary for exploiting a given technology, and of what kind of pool-building may accordingly be justified. Instead of tolerating pools on condition that their licensing practices be fair, the proper test would be whether licensing needs are such as to make pool-building acceptable in the first place. In addition, as the techno-economic link between the essential technology and the other technologies is not

[64] See *supra* n. 39. Such emulation may even become overzealous: at para. 32 of the TT-Guidelines, the Commission takes the counter-factual position that patentees owning complementary or otherwise blocking patents should not be considered competitors. Common sense would indicate that the development of blocking patents indeed *identifies* the patentees as actual or at least potential competitors, unless they operate in different markets: most of the time, an improvement invention is made by a competitor, whereas, mainly in case of complex products, the interaction of components may bring together non-competing enterprises. Assuming, as a general matter, the non-existence of a competitive relationship simply forgoes any examination of the crucial issue of whether the (cross-)licensing or pooling arrangement actually has pro-competitive effects that outweigh the drawback of competitor cooperation (how important is the complementary invention for the exploitation of the technology?). By contrast, the DOJ/FTC Guidelines, although they do tend towards such a generalization, are much more careful in looking at reality (see §§ 3.3, example 5 and 5.5).

[65] See statement of Beency in DOJ/FTC Hearings 2002, *supra* n. 45.

[66] Thus, internal cross-licensing, by enhancing technological efficiency, increases the attractiveness of the pool, and, likewise, grant-backs by third-party licensees not only contribute to the market position of the pool and of the licensees, but also reinforce the lead pool members enjoy, particularly where only 'essential' patents are licensed back, since pool members already possess all the additionally necessary or useful technology and may exchange it amongst themselves.

specifically taken into consideration, no examination is made of the—positive or negative—impact which the availability or non-availability of the other technologies from the pool or from other sources may have on the indispensability of pooling essential technologies and, more particularly, on the conditions of their joint licensing.

(b) Indeed, the indispensability test implies a detailed normative judgement on the proportionality of a restrictive agreement as regards its contribution to technical or economic progress. In accordance with their objective of facilitating third-party licensing, technology pools are generally held to be beneficial in that, by allowing a centralization of the grant of licences, they help to save transaction costs for both pool partners and the licensees.[67] In addition, however, they produce efficiency gains both for the licensee as a result of his access to the licensed technology, and for the pool partners as a result of easy access to a broad spectrum of improvements via grant-backs.[68] These beneficial effects will normally occur regardless of whether the licensed technology is essential or not, at least for all those licensees who do not themselves have the technological capacity to make the essential or core technology work, and who depend on successful efforts of licensing-in a complete package of technology. Nevertheless, if pool-building is deemed lawful under Article 81(1) EC only where it is limited to essential technology, and if it is otherwise subject to a number of additional, less specific, but demanding conditions,[69] then the reason must be a 'trade-off' between the public interest in, on the one hand, free competition and, on the other, easier access to new systems technology—the 'price' being the transaction costs technologically less performing licensees have to incur for obtaining substitute technology by individual search and negotiation.

In principle, there is no objection to be made against the limits set on an easy extension of technology pools to all the technology, which pool partners (or licensees) may wish to include. However, it is somewhat surprising to see how little savings of transaction costs is necessary to hold pools of essential technology to be justified *per se* under Article 81(1) EC or, for that matter, under US antitrust law. Indeed, whereas in the paradigmatic case of the MPEG pools the number of both the licensors and the licensees was large, and the essentiality of a few core patents had

[67] This is the focus of the Commission at para. 214 of the TT-Guidelines. Transaction costs relate to the costs of patents, searches to determine a patent's existence and validity, the costs of partner selection, of licensing negotiations and of surveillance of patents and licensees. Such costs may also consist of a pool's costs of identifying essential patents from among numerous relevant but non-essential patents, which consequently also saves costs for the licensees (an extreme case was the MPEG-case, where apparently 27 essential patents were selected from among 8,000 allegedly relevant patents. See Merges, *supra* n. 1, at p. 148).

[68] See *supra* n. 66.

[69] See *supra* at 1(b) and (c); TT-Guidelines, paras. 222 *et seq.*

to be determined by reference to thousands of relevant patents,[70] in subsequent cases it has been considered sufficient if licensees were enabled to negotiate with one rather than with only two or three licensors for a limited number of essential licences.[71] Given that each of these rather few licensors should be able to minimize overall transaction costs by standardizing licensing as regards form and scope, the cost-savings argument appears to be quite weak.

(c) Therefore, a better explanation of antitrust generosity must be sought—and possibly may be found in the very nature of essential and complementary technologies. Such technologies do indeed produce blocking situations, not only as between the partners of the pool but also as between potential licensees.[72] As a consequence, each patentee's freedom of choice regarding his licensees is limited by the choice that the owner of the complementary technology makes. Such limitation runs contrary to the interest of the owners of industrial property that their systems innovation be disseminated as broadly as possible, or at least in accordance with their own business strategy. Antitrust authorities have no means to ensure that liberty of choice, except possibly in the rare cases where patentees acquire market power at an early stage of the innovation process. Therefore, all sides are easily satisfied with pool-building.

Interestingly enough, in Europe at least, some national competition laws might allow potential licensees to obtain relief at an early stage, namely whenever in the exercise of their business they become dependent on particular enterprises. These latter firms then are held to an obligation of non-discrimination by reference to those undertakings to which they offer licences.[73] However, as a matter of practice, general reliance on such rules as a substitute for pooling would make the dissemination of systems innovations depend on the potential licensees' willingness to enforce the non-dissemination rule by either going to national competition

[70] See *supra* notes nos. 38 and 67.

[71] In the CD market case, the Commission approved a pool between two enterprises relating to one essential patent and to apparently only a few joint inventions. See Castellot, *supra* n. 37, at p. 59. Similar cases include the European cases of the CD Disc Patent License Agreement and of the DVD pools (*supra* n. 37) as well as the US cases relating to the DVD-ROM and DVD-Video Formats (*supra* n. 38: one instead of three licensing transactions). In the case of 3G3P, 45 enterprises originally claimed title to the essential technology, but the pool does not follow a one-stop shop policy: as a result, transaction costs savings are limited. (However, in the view of the antitrust authorities, the restrictive effects of the agreement were also limited.) See Business review letter *IMT-2000 Family of 3G standards* (*supra* n. 38).

[72] This problem of a 'hold up' (a characterization that bespeaks the underlying, instrumentalist antitrust philosophy) is of a general nature, but more particularly serves to justify grant-back licensing. See DOJ Business review letter *IMT-2000 Family of 3G standards*, cited in *supra* n. 38.

[73] For the control of the discriminatory exercise of 'relational' market power, see § 20(2) of the German Act Against Restraints of Competition and Article L 420-2, para. 2 of the French *code de commerce.* Article 3(2) of Regulation 1/2003 allows Member States, in respect of unilateral conduct, to exercise control beyond the limits of Article 82 EC.

authorities or eventually/alternatively to court, i.e. the dissemination of the systems innovation would depend on its actual attractiveness for potential licensees. So much reliance on the market mechanism is not generally shared, certainly not at the Community level, and so it becomes clear that broad and easy acceptance of pool-building is very likely based more on recognition of the long-term innovation strategies of the founders of the pool than it is on considerations of their savings in transaction costs, let alone the savings of licensees.

C. Patent Law as the Source and the Solution of the Problem

1. The limits of competition law

Summing up the foregoing analysis, it seems fair to say that the framework for the assessment of technology pools overstretches the legitimate objectives and the proper use of competition law or policy. On the one hand, competition law, by supporting, if not promoting pool-building in the interest of industrial strategies of systems innovations and standardization, risks being transformed into a 'strategic competition policy'.[74] On the other hand, such risks are increased rather than contained by giving prescriptions for the organization of technology pools which are set forth in the name of competition law but which really represent rules of good governance of associative bodies. Therefore, such prescriptions are in conflict with the principle that the form of a restrictive agreement does not immunize it against the application of the antitrust laws. Yet an entire institutional framework is recommended to parties establishing pools.[75] This framework not only requires the independence and proper selection of technical experts so as to guarantee the objective assessment of the essentiality of the pooled technology. Rather, it suggests that the pool should integrate or associate "all

[74] Characterizing a competition policy as "strategic" (see Khemami R. S. and Schöne R. (1998): "Competition Policy Objectives in the Context of a Multilateral Competition Code", in Ehlermann C.-D. and Laudati L., eds., *European Competition Law Annual 1997: Objectives of Competition Policy,* Hart Publishing, Oxford and Portland, Oregon, at p. 187, 233) corresponds not only to its relationship to trade policy (see Mavroidis P., Bacchetta M. and Horn H. (1998): "Do Negative Spill-Overs From Nationally Pursued Competition Policies Provide a Case for Multilateral Competition Rules?", in Ehlermann C.-D. and Laudati L., eds., *European Competition Law Annual 1997: Objectives of Competition Policy*, Hart Publishing, Oxford and Portland, Oregon, at 271 *et seq.*) but possibly also to a reality. See Kolasky W. (2002): "Using Competition Policy to Promote International Competitiveness", address before the American Chamber of Commerce, Seoul, November 14, 2002 (available at http://wwww.usdoj.gov/atr/public/speeches/200485).

[75] TT-Guidelines, sub 4.3.

interested parties representing different interests", that the composition of the bodies of the pool should mirror all the different interests, that arrangements should be made for the exchange of sensitive information, and that neutral dispute settlement bodies should be installed.[76]

Such consecration of the "*pouvoirs économiques privés*"[77] and the control of a proper organization and operation of their self-regulatory mechanisms is not only beyond the remit of competition law[78] but also testifies to the fact that the capacities of competition authorities are exceeded by the techno-economic complexities of systems-related technological pools. Competition authorities are simply neither trained nor staffed for the assessment of the essentiality or non-essentiality of a technology, and certainly not as it evolves over time, and they must therefore rely on the hope that the pool will sufficiently supervise itself. Consequently, the 'institutional framework' represents not so much an invitation to establish a pro-competitive arrangement, but a set-up to minimize the risks associated with the implicit delegation of powers of control from public authority to the controlled enterprises.

2. Limiting patent protection

2.1. The logic of property for inventions

The problems which technology pools raise for competition law, and the latter's reliance on rather abstract rules of scrutiny and referral to self-regulation, call for alternative approaches, in particular in that field of law that covers the subject matter of pools, namely the law of patents for inventions. Of course, much can be said on excessive patent protection and possible ways to contain it. However, a more general point can be made to the effect that pool-building is within the logic of patent protection as a system of property rights in inventions, and that pools therefore present no cause for worry, other than as regards their optimal operation. From this perspective,

[76] TT-Guidelines, para. 230 *et seq.*

[77] See Farjat G. (2000): "Les pouvoirs économiques privés", in *Mélanges Ph Kahn*, Paris, 613. With respect to frequently concomitant standardization, see Schepel H. (2004): *The Constitution of Private Governance—Product Standards in the Regulation of Integrating Markets,* Hart Publishing, Oxford and Portland, Oregon; Cafaggi F. (2005): *Gouvernance et responsabilité des régulatures privés*, EUI LAW Working Papers 06/2006.

[78] For the law of associations and the relief it may provide against discriminatory rules and practices of associations, see, as regards German law, Weick P. in Staudinger *Kommentar zum BGB*, 13th ed. Berlin, sections 21 *et seq.*, annot. 23 *et seq.* and section 24 annot. 34 *et seq.* Most likely, national laws on the matter diverge, so that the Commission would have to go into detailed control in order to ensure a level playing field; ultimately it would have to require the applicability of an adequate national law.

concomitant restrictive arrangements or effects appear to be marginal and easy to control.

Robert Merges[79] has presented just such an analysis in a study which combines economic theory of property in intellectual goods with a historical account of pool-building as it occurred since the beginning of the last century.[80] Patent pools, so he argues, help to overcome an inherent weakness of the patent system. This weakness results from the fact that, in order to transform non-naturally appropriable, i.e. public intellectual goods, such as inventions, into privately appropriable, merchandisable goods, patent law must use abstract criteria and apply to identifiable, well-defined technical teachings.[81] This, by necessity, breaks technologies down into small separate pieces of property, which, due to technological division of labour or to rivalry, may go to different owners. The mosaic-like reassembly of these dispersed pieces of property may entail transaction costs which, from an *ex ante* perspective, may impair if not nullify the innovation incentives the patent system is supposed to provide.[82] Enterprises will seek to overcome this system failure by licence exchange, eventually even on an industry-wide scale. Institutionalizing such licence transactions by pool-building will allow a centralization of control over the rights, which, as in the case of collecting societies for copyrights, makes access and use generally available. However, as a result of the centralization process, which takes place when contributions to the pool are negotiated, the individual exclusive right will be transformed into a mere right of compensation. This is so because the pool, in accordance with its very objective, must and will give anybody willing to pay access to use the pooled technology.

It is of course no coincidence that Merges' analysis coincides with the conditions under which patent pools are permitted in the US and with the arguments in support thereof.[83] However, the legitimacy which it affords to pool-building is not quite as strong as the elegance of the argument. Pool-building as a regular (and regulatory) instrument for solving recurrent,

[79] In R Dreyfuss *et al.*, supra n. 1, *passim.*

[80] With regard to the latter, see also the references *supra* note no. 1.

[81] See Ullrich H. (2001): "Intellectual Property, Access to Information and Antitrust: Harmony, Disharmony and International Harmonization", in Dreyfuss R. *et al.*, *supra* n. 1, 365 sub II A 2.; Ullrich H. (2003): "Legal Protection of Innovative Technologies: Property or Policy?", in Granstrand O., ed., *Economics, Law and Intellectual Property,* Springer Co., Boston, 439, 445 *et seq.*

[82] See (as relied upon by R Merges, *supra* n. 1) Heller M. (1998): "The Tragedy of the Anticommons: Property in the Transition from Marx to Markets", 111 *Harvard Law Review* 621; Heller M. and Eisenberg R. (1998): "Can Patents Deter Innovation? The Anticommons in Biomedical Research", 280 *Science* 698, the latter dealing with the problems resulting from the (too) early grant of (excessively) broad patents.

[83] See Shapiro C. (2001): "Navigating the Patent Thicket: Cross Licenses, Patent Pools and Standard Setting", in Jaffe A., Leiner J. and Stein S., eds., *Innovation Policy and the Economy,* Cambridge University Press, Massachusetts, 119 (also available at http://haas.Berkeley.ed ˜Shapiro/thicket.pdf), who, like Merges, is from Berkeley, and who, based on the same assumptions, justifies the antitrust way out of the 'patent thicket'.

systematic mass conflicts of property rights[84] undercuts the normative assumptions underlying patent protection.[85] On the one hand, transition from the principle of exclusivity to a principle of compensation (or of 'liability', as the jargon of economic analysis of law goes) means that the pool as an 'exchange institution' does not act like a 'board of trade', which provides a centralized market place, but as a mechanism of distribution. In contrast to the individual exploitation of rights in competition, there will be no determination of prices at the maximum level of users' willingness to pay, as the legislator would like to see when introducing the principle of exclusivity.[86] Rather, there will only be a compensation that has been set in advance and in the abstract by a collective body, possibly also by neutral experts. In the former case, the compensation will be determined by the strategic interest pool members pursue when setting up the pool. In the latter case, it will be limited by 'affordability' for the average user. In any case, however rewarding for pool members and however (hopefully) analogous to market prices the compensation may be,[87] it will miss the incentive/reward rationale of the patent system as we know it, because this is geared to market-based incentives and rewards.[88]

This then, on the other hand, raises the question of whether it is not the very determination of the conditions for the grant of rights and of their scope which needs to be reassessed, given that, due to the frequency of situations of conflict or dependence, the system itself comes under tectonic pressure.[89] In

[84] The historic account which Merges, supra n. 1, at 135 *et seq.* provides on the basis of secondary sources implies the existence of cycles of pool-building that follow the cycles of innovation in system technologies and assembly industries. If, upon closer empirical analysis, this turns out to be the case, the implications for the patent systems would be considerable, because they would systematically miss their function as a competitively neutral incentive system.

[85] Oddly enough, in the context of software copyright, Merges has insisted upon the system change caused by a transition from exclusivity to liability. See Merges R. (1994): "Of Property Rules, Coase, and Intellectual Property", 94 *Columbia Law Review* 2655.

[86] Note again the perversity of applying a rule of non-discrimination between pool members and third party licensees. There is no reason why pool members, when negotiating their internal deal, should not do so by reference to their individual interest or willingness to pay (including the advantages associated with centralized licensing to third partners); it would indeed be surprising if they did not actually do so.

[87] This is what the Commission, at para. 231 of the TT-Guidelines, expects to be the case if the pool itself is open to all parties, which is, however, almost never the case, and which is certainly not an assumption upon which the Commission's framework of analysis may realistically be based. Note that centralized licensing by a limited pool will most likely apply comparative pricing policies, meaning that, the more competitive technologies there are, the closer the compensation of the pool may come to market reality—again an unrealistic assumption for important and certainly for standardization-oriented pools.

[88] See references *supra* note no. 81.

[89] As to the problem of an ever expanding industrial property system, see Cornish W. (2001): "The Expansion of Intellectual Property Rights", in Schricker G., Dreier T. and Kur A., eds., *Geistiges Eigentum im Dienst der Innovation*, Nomos, Baden-Baden, 9; Godt J. (2005): *Eigentum an Information—eine Rückführung der Patenttheorie an die allgemeine Eigentumstheorie am Beispiel genetischer Information*, forthcoming Tübingen 2006. The causes are manifold. See also H. Ullrich in Grandstrand, *supra* n. 81, at 466 *et seq.* and 470 *et seq.*

fact, it is quite obvious that the system's failure may produce mutually reinforcing effects. The growing complexity of intellectual property positions increases the need for pool-building, whose legitimacy as a cost-reducing institution will be increasingly enhanced as it encompasses more and more intellectual property rights—essential or otherwise. By the same token, the legitimacy of protecting patents by exclusive rights will suffer, since apparently too many patent are (too easily?) granted to a relatively small number of firms.[90]

2.2. Pooling or clearing?

(i) Fortunately enough, this paper does not have to answer the questions of whether and in which areas the above-mentioned patenting dilemma is inherent in the system, and therefore a valid reason for some pool-building, or whether it may also be due to malfunctions resulting from either ill-defined substantive law or from poorly administered granting procedures, in which case patent-pooling would not represent a sustainable remedy.[91] The answer may be different not only for different technologies,[92] but also for different industries[93] and it might therefore

[90] In addition to the problem of a proper application of the standards of patentability, the administration of the granting process raises problems. See Federal Trade Commission (2003): *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*, Chapters 4 and 5; Merril S., Levin R. and Myers M., eds. (2004): *A Patent System for the 21st Century*, National Research Council, Washington D.C., 28 *et seq*., 41 *et seq*., 59 *et seq*. and 65 *et seq*. For the patent propensity of large firms, see *Deutsches Patent- und Markenamt, Jahresbericht 2004*, at p. 10.

[91] A point that has been purposively but wrongly discarded by Shapiro, *supra* n. 83.

[92] As regards copyright in computer software, see Samuelson P., Davis R., Kapor M. and Reichman J. (1994): "A Manifesto Concerning the Legal Protection of Computer Programs", 94 *Columbia Law Review* 2308, where the authors maintain that there is a system failure due to modular interdependencies of software development. Similar arguments might apply to ex?????? patent protection. See Bakels R. and Hugenholtz B. (2002); *The Patentability of Computer Programs*, Working Paper for the European Parliament, Directorate-General for Research, Legal Affairs Series, Luxembourg; Ghidini and Arezzo, *supra* n. 43. With respect to biotechnology, the dependency issue may at least be eased by a broader exemption from patent protection for research. See Eisenberg R. (1989): "Patents and the Progress of Science—Exclusive Rights and Experimental Use", 56 *University of Chicago Law Review* 1017; Eisenberg R. (2001): "Bargaining Over the Transfer of Proprietary Research Tools: Is the Market Failing or Emerging?", in Dreyfuss *et al., supra* n. 1, at 223 *et seq*. See also Gilat D. (1995): *Experimental Use and Patents*, IIC Studies, vol. 16, VCH, Weinheim, *passim* p. 73 *et seq*. But all of this is very controversial, and the law develops in the opposite direction. See Sampson T. (2004): "Madey-Integra and the Wealth of Nations", *European Intellectual Property Review* 1.

[93] See Merges R. and Nelson R. (1990): "On the Complex Economics of Patent Scope", 90 *Columbia Law Review* 839; David P. (2003): "Intellectual Property Institutions and the Panda´s Thumb: Patents, Copyright and Trade Secrets in Economic Theory and History", in Wallerstein M. B., ed., *Global Dimensions of Intellectual Property Rights in Science and Technology*, National Academies Press, Washington D.C., at 19, 37 *et seq*.; Mazzoleni R. and Nelson R. (1998): "The Benefits and Costs of Strong Patent Protection: A Contribution to the Current Debate", 27 *Research Policy* 273; Schalk H.-J. and Täger U. (1999): *Wissenverbreitung und Diffusionsdynamik im Spannungsfeld zwischen innovierenden und imitierenden Unternehmen,* Munich, 109 *et seq*.;

also be necessary to examine the more fundamental problem of whether a differentiated, technology- or industry- specific system of patent protection would be compatible with its market orientation and with the public interest in a competitively neutral overall operation of the system.[94] It might also be premature to enter into such a broad discussion. As pool-building is a recurrent phenomenon,[95] it is an open question whether it really is linked to an over-expansion of protection, if there is one. In addition, it still needs to be clarified whether the existing pools are essentially built on 'excessive' patents or whether such examples represent the worrisome exception.[96]

(b) In the real world, however, patent pools are not merely the result of a systemic failure of patent protection. The fact is that, frequently enough, the pooled technology results from joint research and development. In such a case, patents may serve to identify a partner's contribution and to facilitate attribution of the results among partners, but they do not really operate as an incentive for investment in individual research, as is assumed by the competition-oriented patent system, nor is full exclusivity typically needed.[97] In addition, enterprises increasingly seek to obtain patent protection with a multi-purpose strategic perspective, whereby, for example, they build up blocking positions as a bargaining chip.[98] Finally, even big patent offices seem to be helpless in the face of the ever-rising tide of incoming applications. They lack qualified staff and are unable to deliver merited protection within reasonable delays.[99] This means that, not only that the presumption of patent validity which underlies the antitrust tolerance of pools rests on shaky grounds, but also—and above all—that enterprises may create the very conditions for pool-building that are thereafter relied on for its justification.

Jaffe A. (2000): "The US Patent System in Transition: Policy Innovation and the Innovation Process", 29 *Research Policy* 531, 544 *et seq.*.

[94] See references in *supra* n. 81.

[95] See *supra* n. 84.

[96] How many such cases exist is difficult to tell, given the small and non-transparent administrative practice of the Commission. But see, e.g., US International Trade Commission, *in the matter of certain Recordable Compact Discs and Rewritable Compact Discs* (Inv. No. 337-TA-474), April 8, 2004; repealed 424 F 3rd 1179 (Fed. Civ. 2005).

[97] See Ullrich H. (1988): *Kooperative Forschung und Kartellrecht*, Heidelberg, 167 *et seq.*; Monopolkommission (1990): *Hauptgutachten VIII, 1988/1989* at no. 1082 *et seq.*

[98] See Barton R. (2001): "Antitrust Treatment of Oligopolies With Mutually Blocking Patent Portfolios", 69 *Antitrust Law Journal* 851, 852 *et seq.*; Riordan B. (2000): "What is Driving Patent and Trade Mark Application Filings?", 22 *European Intellectual Property Review* 349. For a sceptical view, see Jaffe A. (2000): "The US Patent System in Transition: policy innovation and the innovation process", 29 *Research Policy* 531 *et seq.*. For patenting strategies generally, see Granstrand O. (1999): *The Economics and Management of Intellectual Property,* Edward Elgar Publ., Cheltenham, 134 *et seq.*, 176 *et seq.* and 209 *et seq.*

[99] See *supra* n. 90; Jaffe, *supra* n. 98. At the European Patent Office between 1995 and 2003, applications have risen from 78,000 to 162,000 per year, but grants have only increased from 41,000 to 60,000 per year. On average, the granting procedure takes more than four years. See EPO *Annual Report 1999* at 12; *Annual Report 2002* at 10, 18; and *Annual Report 2003* at 12, 14.

Antitrust efforts to limit pool-building to essential patents will hardly compensate for this deficit of legitimacy of pool-building. Whilst they may help to separate the chaff of peripheral patents from the wheat of core technology, that technology neither needs to be particularly inventive nor are pools necessarily reserved to essential patents, since parties may always claim an Article 81(3) EC exemption where non-essential patents are concerned. Much more important is the circumstance that the patenting strategies of enterprises create the major part of the transaction cost problems that the pool is supposed to solve, and that must be solved before the pool can even enter into operation, namely the selection of the essential patents out of the possibly very many relevant rights to protection. It may be that this selection problem is an industry-wide one rather than one which pool members alone have created. But the pool members use it as the basis for their pool-building venture and for their associated claim to system leadership, i.e. for their innovation strategy.

(c) In sum, therefore, it is essentially a clearing problem which is at the root of pool-building. If solved as such, there will hardly be any more frightening transaction costs that might justify pool-building. Most of the time there will remain only a few patents and patentees once the essentiality test has been carried out. This in turn means that wholesale antitrust tolerance of patent pools may well go beyond what is needed from the perspective of the patent system. Indeed, if the mere establishment of—private or public—clearing institutions essentially meets the search and selection problems associated with the piece-wise protection of system- or standardisation-related technologies, then all that remains to be achieved is to ensure that the licence exchange that is necessary to resolve the by now well-identified blocking situation will in fact be available. As already noted,[100] some national competition laws already offer a means of relief. Conceivably, patent law itself could provide for a more direct approach. Indeed, in contrast to US patent law, most European patent laws contain rules on the grant of compulsory licences which are aimed at resolving blocking situations or at opening up opportunities for the exploitation of improvement patents.[101] If these rules were amended so as to cover also discriminatory refusals (but only those) to license other types of complementary patents, or at least any other essential complementary patent, then a flexible form of relief would be put in the hands of those courts which are used to handling techno-economic matters, namely specialized intellectual property courts. The transition from the principle of

[100] See *supra* B. 2.3. (c) and *supra* n. 73.

[101] See Article 21(2) of the Commission's *Proposal for a Community Patent Regulation* (OJ C 337 [2000]) as modified by the Council on September 4, 2003, Council Doc. 12219/03 (available at http://europa.eu.int/council_internal_ market/eu/indprop/patent); Article L 613-15 French *code de propriété intellectuelle*.

exclusivity to that of a liability system would remain rather limited, and the gain for a system of free competition would be considerable. No longer would there be a tight and direct legal link between the technical and the economic claim to system leadership. Rather, systems innovations would be subject to the market for ideas. Indeed, where the holders of proprietary technology no longer have the possibility of controlling the diffusion of their technologies by centralization, and where the users of such technologies have to justify their claim to access, both the value of the protected inventions and the interest in alternative technical teachings may come more clearly to the fore.

D. Conclusion

The modern approaches that the US and European antitrust authorities have taken to assess technology pools represent more a shift in emphasis than a new insight. The positive aspects of patent pooling have long been known, but have been overshadowed by the propensity of pools to engage in anticompetitive practices.[102] The present change of perspective[103] means not only a resurrection subject to reservations, but the delegation of a problem of patent law policy to self-regulation by the *pouvoirs économiques privés*.[104] Indeed, modern economics-based competition policy and law is hardly equipped to normatively fill the gaps left by other areas of the law that are supposed to provide a legal ordering of competitive markets. If, at present, patent law has come under stress due to the challenge of information technologies and biotechnology, then the right reaction is to have patent law solve its own problems rather than to save it through a generous application of the antitrust laws. Opening up a safety valve by means of competition law risks, *à la longue,* favouring the development of more malfunctions than can be compensated for on an *ad hoc* basis.[105] Moreover, forms of individual

[102] See Schulte H.-J. (1971): *Lizenzaustauschverträge und Patentgemeinschaften im amerikanischen und im deutschen Recht*, Athenäum-Verl, Frankfurt, 101 *et seq.*; Pietzcke R. (1983): *Patentschutz, Wettbewerbsbeschränkungen und Konzentration im Recht der Vereinigten Staaten von Amerika*, Cologne, 84 *et seq.*. The reversal of the trend apparently began with Andewelt R. (1985): "Analysis of Patent Pools Under the Antitrust Laws", 57 *Antitrust Law Journal* 611.

[103] On this ambivalence, see Newberg J. (2002): "Antitrust, Patent Pools, and the Management of Uncertainty", in DOJ/FTC, *Hearings on Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy*, February 6, 2002 sub IV B3, C (available at http://www.usdoj.gov/atr/public/speeches).

[104] See *supra* n. 77.

[105] For instance, if today's pools are considered to be the right answer to the expansion of patent protection, tomorrow they may be used as a way for transition from an examination-based patent system to a new registration system, given that patent offices are overtasked (see

freedom, which competition law fails to protect, will hardly ever find protection elsewhere under the law. In particular, the 'democratization' of pool-building, which the requirement of a proper 'institutional framework' seeks to achieve, does not compensate for any losses of freedom. To the contrary, it only optimizes integration into strategically defined systems innovation by way of organizational rules whilst helping to transpose property-based transactions and negotiation processes from the market into the network.

supra n. 99 and Geller P. (2003): "An International Patent Utopia?", 25 *European Intellectual Property Review* 515). Patent pools themselves would become charged with examination tasks, and the antitrust laws would welcome their additional role as a matter of reducing transaction costs and producing efficiencies in terms of an increased probability of patent validity. When noting this perspective, I was still unaware of Lerch and Melamed's proposition (in their written contribution for this volume) to justify pool-building as an insurance (or solidarity?) mechanism for the containment of invalidity infringement risks of patent protection. A discussion of what such a proposition might mean for both the patent system and the system of free competition (even greater propensity to seek patent protection, less incentives to challenge the scope or the validity of patents, and, as a result, an additional limitation of freely accessible public domain knowledge; unequal operation of the patent system for enterprises inside or outside a pool, in particular for small and medium sized enterprises?) is beyond the scope of this paper.

IV

*Allan Fels, AO and Jill Walker**

Australian Intellectual Property Law, Competition and Collecting Societies: Efficiency, Monopoly, Competition and Regulation

A. Introduction

Australia is a net importer of intellectual property. Although there are some exports of intellectual property products from Australia, these are heavily outweighed by imports. Accordingly, Australia's economic interests lie on the user rather than the producer side. However, Australia is a country that respects legitimate property rights and as a member of the international community it respects legitimate international property rights, including intellectual property rights.

B. IP Law, Producer and Consumer Interests, and Parallel Import Restrictions

Many in Australia hold the view that intellectual property laws have been tilted in favour of the interests of producers in exporting countries.[1] Their views have been coloured by the long history of the treatment of parallel imports. During the 19th century there was an open market for books. Australian retailers could purchase copyrighted books from anywhere in the world without restriction. However, under pressure from British colonial publishing interests, the free flow of copyrighted products was cut back around the turn of the century. Restrictions on international trade in copyrighted products were added on to the copyright laws, even though the

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[1] Landes and Posner (2003) point out in a somewhat otherwise inconclusive discussion of the political economy of intellectual property law (Chapter 15) that "a nation that has a comparative advantage in producing intellectual property is more likely to favour intellectual property rights than one that does not" (p. 410). They also mention mercantilist factors in the same context. What is surprising is that they do not mention statutory restrictions on parallel imports in their treatise.

connection of these restrictions with copyright law was remote. As a result retail sellers of books, CDs, computer software and other copyrighted products were for many years prohibited from directly importing products without the approval of the owner of the Australian copyright, even though such products were available far more cheaply overseas than from those producers. A customer, for example, might request its bookshop to purchase a book from the United States, where it would be on sale far more cheaply than in Australia, but the retailer would be prohibited by law from doing this (without the approval of the multinational publisher—permission which was not generally given).

A series of reports by the Prices Surveillance Authority, later the Australian Competition and Consumer Commission (ACCC)[2], showed that the system of restricted imports enabled publishers, music companies and computer software businesses to charge much higher prices than would otherwise have been possible. Prices were generally well above levels in comparable overseas countries such as the US, Canada and the UK.[3] The system enabled worldwide price discrimination under which publishers could set local prices without fear of import competition. There were other shortcomings to the system, e.g. books took a very long period to arrive in Australia. The system of restricted imports also created a general anticompetitive climate in the industry.

Economic analysis by the Prices Surveillance Authority suggested that there was no economic justification for the restrictions. The possibility of market failure does provide a justification for copyright. If an author's work could be lawfully copied by anyone then the incentives to write books would be severely reduced. However, market failure considerations do not seem to justify the statutory restrictions on international trade that have been attached to copyright laws in Australia and most countries for a hundred years. There is no market failure in the *distribution* of copyrighted products to warrant such draconian restrictions.

After very heated debate, the first impact of the Australian reports was for the neighbouring New Zealand to repeal all restrictions on parallel imports. Australia then repealed the restrictions in relation to CDs and computer software. The current Coalition Government, however, has been unsuccessful in fully repealing the parallel import restrictions in relation to books, because of resistance from the Senate. With control of the Senate since July 1 2005, they will now be able to do so and may reintroduce laws requiring the complete removal of the restrictions on books.

An interesting development was that once the restrictions on CDs were lifted, some record companies took unlawful action to prevent or inhibit

[2] Prices Surveillance Authority 1989, 1990 and 1992. The authors of this paper were associated with the production of these reports.

[3] These countries have similar laws, but Australia's distance from major markets causes there to be a relatively inelastic demand curve with greater possibilities for exploitation of buyers.

retailers from directly importing CDs. In *Universal Music Australia v. ACCC,* the ACCC was successful in establishing in the Federal Court of Australia that the record companies had acted unlawfully in relation to such retailers, providing an illustration of the complementarity between competition law, trade law and intellectual property law.

A significant recent development has been the use of bilateral Free Trade Agreements to obtain restrictions on parallel imports. The international community has resisted the inclusion of a worldwide WTO agreement on parallel import laws. This having failed, the bilateral trade agreement route is being utilised.

C. IP Law and Competition law

It was the exposure of the effects of parallel import restrictions that led to a more general suspicion in Australian policy making circles of intellectual property law and of whether the right balance is being struck between intellectual property law and competition law. This was one factor triggering the Intellectual Property Review Committee (IPRC)'s (2000) review of intellectual property laws and competition in Australia.[4] One issue considered by the review was section 51(3) of the Trade Practices Act (TPA), which is directed at regulating the interface between competition and intellectual property laws.[5] That section exempts the imposing of, or giving effect to, conditions of licences and assignments from Section 45 (anticompetitive agreements), Section 47 (exclusive dealing) and Section 50 (mergers) of the TPA, to the extent that those conditions relate to the subject matter of the relevant intellectual property (or, in the case of trade marks, only to the extent that they relate to the kinds, qualities and standards of goods bearing the trade mark).

It is not a comprehensive exemption, as some people assume. Intellectual property is specifically left out of the general exemption of legislation in Section 51(1). The intellectual property exemption relates only to *conditions* of licenses and assignments and only to the extent that they *relate to* the subject matter of the intellectual property. Moreover, the exemption does not extend to Section 46 (taking advantage of a substantial degree of market power) or to Section 48 (retail price maintenance).

Section 51(3) has been subject to a vast range of interpretations and the only judicial decision to have touched on it, *Transfield v. Arlo International*

[4] The review was part of a broad legislative review program under the Competition Principles Agreement between the Australian States and Territories.

[5] The review also encompassed a complete review of all intellectual property statutes, including issues directly relating to the regulation of the activities of collecting societies.

(1980), has been used to support a whole range of opinions. Some take the view that almost any condition—exclusive licensing, territorial restraints, price and quantity restrictions—would relate to the copyright work or other subject matter and hence would be exempt. Others consider that the condition must relate directly to the work itself, such as specifying the form of performance of a musical work, while conditions such as exclusivity would constitute collateral arrangements between the parties and would not be covered by the exemption. The uncertainty over the meaning and extent of the exception provided by Section 51(3) has limited any benefit which it might otherwise have afforded business.

The Government has accepted the recommendation of the IPCRC that Section 51(3) be redrafted so that conditions in the copyright licenses and agreements that substantially lessen competition would be prohibited.[6] Legislation is expected to be introduced into the Australian Parliament in due course and to be enacted. The ACCC is expected to publish intellectual property guidelines, setting out the types of conduct that may or may not be concerned to breach the TPA.

The authorization and notification provisions of the TPA provide for the case by case exemption of conduct from the provisions of the Act (other than Section 46) on public benefit grounds, which includes both economic efficiency (including the all important effect on competition) and broader public benefit issues. Authorization and notification are often not granted and never lightly. Initially it is for the ACCC to consider the merits of an application and issue a determination (in the case of authorization) and/or a notice or not (in the case of notification). The ACCC's consideration of applications is a public one, calling for submissions and placing all but genuinely confidential and sensitive information on the public register. The TPA also provides for draft determinations and pre-decision conferences to aid in the consultation and deliberation processes. If any interested party is dissatisfied with the ACCC's decision, the TPA provides for a review of the ACCC's decision by the Australian Competition Tribunal (the Tribunal). This is a re-hearing of the matter, not an appeal, and can take into account new information and evidence not available to the ACCC.

The authorization and notification provisions provide an opportunity for the interface between competition law and copyright, including the

[6] This proposal does not seek to repeal the exemption totally. The per se prohibitions—on price-fixing, collective boycotts and third-line forcing—are still covered by the exemption. It is only if conditions substantially lessen competition—or if any agreement of any kind, horizontal or vertical, substantially lessens competition—that the prohibition will apply. The reasons for the proposed continuing exemption of the per se rules are: (1) Australia's per se prohibitions, although similar to those in the USA, are dealt with somewhat less flexibly because they are expressed in tight statutory language and are less amenable to rule of reason approaches; (2) it was considered that many innocent arrangements would be caught by the per se prohibitions, and (3) this was a concession—partly real, partly symbolic—to industry supporters of the exemption.

operations of collecting societies, to be regulated in the public interest. The IPCRC recommended that relevant activities of collecting societies should require authorization and/or notification, regardless of whether its recommended changes to s.51(3) were accepted. Since the Government has accepted the IPCRC's recommendation on s.51(3), this should follow naturally. Historically the ACCC and the Tribunal have considered some applications for authorization by collecting societies, particularly in relation to music performing rights (see below).

D. Nature of Collecting Societies

Issues concerning collecting societies have played a significant role in Australian intellectual property law jurisprudence. In Australia, as in other countries, writers and composers most often assign copyright to the publisher in return for royalty payments. Where that work is performed in public, broadcast or copied in a way which is difficult to detect, for example by photocopying, there are practical problems of enforcing copyright on the one hand and of getting users to pay the owner of copyright on the other, particularly where a multiplicity of users makes transaction and enforcement costs prohibitive. Collecting societies have arisen to overcome these problems. Collecting societies license out the use of copyrights in return for a fee that is collected and distributed back to the original owners less administrative costs.

Collecting societies in Australia and elsewhere have received scrutiny over the years by competition bodies. Licensees are also anxious about their dealings with monopoly licence holders. Many small businesses do not understand the operation of collecting societies with regard to the playing of music in shops, restaurants and other places. One recent response in Australia has been government acceptance of recommendations that the collecting societies adopt voluntary codes of conduct outlining standards of acceptable licensing practices and activities.[7]

The main collecting societies in Australia are:

- Australasian Mechanical Copyright Owners Society Ltd (AMCOS), which administers the right to make sound recordings of musical works.
- Australasian Performing Right Association (APRA), which administers the public performance and communication rights for musical works.
- Phonographic Performance Company of Australia (PPCA) is an organization of recording companies, which grants licenses for public performance of sound recordings and music videos.

[7] This paragraph follows McKeough, Stewart and Griffith (2004), pp. 611–615.

- Screen rights administers the compulsory licence for copying and communicating broadcasts by educational institutions and institutions assisting people with an intellectual disability.
- Copyright Agency Limited (CAL) administers the compulsory licence for reproducing and communicating works by educational institutions and institutions assisting people with an intellectual or print disability.
- Visual Arts Copyright Collecting Agency (VI$COPY) administers the copyright of visual artists.
- Christian Copyright Licencing International Pty Ltd, World Life Pty Ltd and Licensing administer copyright in church music and liturgical works.[8]

E. Economic Aspects of Collecting Societies

Collecting societies have a long history in the licensing and enforcement of copyright. In Australia, as in North America and Europe, it is the musical performing rights society APRA, which has been the particular focus of attention in relation to competition issues.

Collective administration of some types of copyright has many advantages, for both owners and users, as well as society as a whole. In its decision *Re APRA* (1999), discussed below, the Australian Competition Tribunal characterised APRA's operations as essentially one of natural monopoly. This natural monopoly reflects considerable economies of scale and scope as well as network externalities (by which users value a comprehensive repertoire and owners want to be part of that repertoire).

By acting as a clearing house, collecting societies around the world can reduce search and transactions costs in markets characterised by large numbers of owners and users. Copyright owners do not have to locate and negotiate with numerous users of their works, and users do not have to locate and negotiate with numerous copyright owners in order to make use of works. Large numbers of potential transactions can be reduced to a small number of actual transactions with the collecting society. Further, there are economies of scope to be gained from the simultaneous enforcement of multiple copyrights by a collecting society monitoring the use of all works in their repertoire.

The activities of collecting societies can be "decomposed" (no pun) into several distinct activities. Thus there are four aspects of APRA's collective administration system:

- Input Arrangements: the terms upon which membership of APRA is granted and the assignment of copyright performing rights by members to APRA;

[8] Fitzgerald and Fitzgerald (2004), pp. 182–195.

- Output Arrangements: the licensing arrangements between APRA and the users of musical works;
- Distribution Arrangements: APRA's arrangements pursuant to which it distributes fees collected from licensees to its members, and in particular a distribution rule that purports to guarantee that composers receive at least fifty per cent of the distribution in respect of works composed by them; and
- Overseas Arrangements: reciprocal arrangements entered into between APRA and similar overseas collecting societies pursuant to which each grants the other rights to license works in their repertoires within their respective geographical areas.

While certain features are common to all collecting societies, others are not. For example, there are differences in whether rights are exclusively or non-exclusively assigned or licensed to the collecting society; whether the collecting society licences individual works ("transactional licences") and/or issues "blanket licences"; and how licence fees are distributed between members.

Except as modified consequent to the Competition Tribunal proceedings discussed below, APRA operates by way of exclusive assignment of the performing rights in all the works of its members; generally issues blanket licences under various licence schemes for different groups of users and distributes its revenues according to the use made of particular works by different user groups at different times of the day etc., with a minimum of 50 per cent going to composers. Apart from collecting societies in the United States, where consent decrees entered into with the Department of Justice prohibit this, APRA holds exclusive reciprocal licensing relationships with its overseas counterparts.

Exclusivity and blanket licences can provide a number of further efficiencies in relation to transaction and enforcement costs. These include that owners and users can license rights in a single transaction and users can be confident of the comprehensive nature of APRA's repertoire. Also, in its enforcement activities, APRA can be confident that users without an APRA licence do not have a licence from another source and only need focus on the presence or absence of a licence rather than whether individual works have been licensed. Further, the blanket licence offers particular advantages for users with unpredictable requirements, such as live performers, telecommunications carriers and retailers, providing advance access to a comprehensive repertoire of musical works. For many, but not all, types of use, blanket licences also encourage the efficient use of the existing repertoire, where the marginal cost of such use is zero.

However, not all collecting societies operate on the basis of exclusivity and blanket licences. Around the world performing rights societies have been required to modify their arrangements in order to promote competition. In the case of other collecting societies in Australia, there are examples of non-exclusivity and transactional licensing. CAL does not have comprehensive exclusive licensing on the input side and issues transactional licences; Screen rights does not have exclusive input arrangements; and Vi$copy supplies mainly transactional licences to users. This paper does not explore the history of these arrangements nor overseas arrangements[9], nor why they have been adopted.

While there are efficiency advantages to collective licensing in some circumstances, on the other side of the scales there is the loss of potential competition between rights holders and the market power of the collecting society. Of course, absent collective licensing, there may be no market where the transaction and enforcement costs of individual licensing outweigh the value of those licences and hence the price that can be charged. However, this is not necessarily the case, as we shall see later in this paper. Collecting societies have a substantial degree of market power, with the usual problems of monopoly pricing and inefficiency that can be associated with that:

- the dead weight loss to welfare is minimised by the relatively sophisticated price discrimination within and between licence schemes operated by APRA; however, there is necessarily some coarseness in this which may deter users; this paper does not explore pricing structures operated by other collecting societies;
- whether or not there is efficient price discrimination, monopoly pricing means there will be a redistribution of income from copyright users to owners;
- there may be an overproduction of new works as a result of authors receiving an element of monopoly rent, instead of the marginal value of their works (this may be offset to some extent by the countervailing power of licensees);[10]
- there may be dynamic inefficiencies to the extent that the distribution of revenues does not accurately reflect the value of particular works, and hence fails to provide the correct incentive for production of new works; and
- there may be technical inefficiency and inefficient rent-seeking behaviour in colleting societies since they do not face competitive pressures.

[9] It is noted, however, that the European Commission has recently issued a Statement of Objection to the so-called "Santiago Agreement", whereby national collecting societies for performing rights each agree to license each other exclusively in relation to their home territories. See Commission Press Release IP/04/586, of 3 May 2004. This provides an interesting parallel to the exclusive territorial (importation) rights previously discussed in relation to physical copyright goods, such as books, CDs and computer software. As advances in broadcasting and communications technology increasingly facilitate worldwide simultaneous broadcasting and public performance of musical works, such restrictive territorial licensing arrangements appear to be not only anti-competitive, preventing potential competition between national collecting societies, but also potentially inefficient in terms of transactions costs.

[10] See Besen et al. (1992).

Nor are transactions costs necessarily reduced by collective licensing. In some cases there may also be additional transaction costs associated with collective licensing, where multiple user licences replace potential source licensing of both synchronisation and performance rights (and in some cases the commissioning of new works) by the producer of an audio and/or visual product such as films, television programs, syndicated radio programs, pre-packaged muzak and tapes used by fitness centres.

The 50 per cent distribution rule adopted by APRA may also have the effect of deterring efficient risk taking by users commissioning new works, who may be in the best position to judge those risks, if they are not able to acquire rights and receive all the returns from their investment.

F. Regulation of Collecting Societies

The question then arises as to the appropriate degree and nature of regulation that should be imposed on collecting societies. Different approaches have been adopted around the world, but it is common for collecting societies to be subject to some degree of regulation through a combination of competition and copyright law and associated Courts and Tribunals. In the United States, Canada and Europe there has been a history of antitrust litigation and disputes before various copyright Tribunals over the licensing practices and charges levied by collecting societies in these countries.

Similarly in Australia, the activities of collecting societies are variously regulated through the TPA, the ACCC and the Competition Tribunal on the one hand, and the Copyright Act and the Copyright Tribunal on the other hand. The appropriate role of these laws and associated regulatory bodies is a live topic in Australia, especially following the recommendations of two recent reports by the IPCRC and the Copyright Law Review Committee (CLRC).

First, as discussed above, there is the question of s.51(3) of the TPA, which provides a limited exception to Part IV (restrictive trade practices) of the TPA for conditions of licences and assignments of copyright as far as they relate to the subject matter of the copyright. As noted above, the recommendation of the IPCRC, now accepted by the Government, is that s.51(3) be redrafted such that conditions in copyright licences and agreements would not be exempted where there was a substantial lessening of competition.

The Australian TPA differs from competition laws in other countries, particularly the United States, in its provision for authorisation and notification by the ACCC (or the Competition Tribunal on review). As noted above, these provisions allow conduct to be exempted from various sections of Part IV of the TPA on public benefit grounds, including but not limited to matters of efficiency. These provisions would seem to provide an ideal opportunity to assess the costs and benefits of various features of collective licensing schemes. The IPCRC recommended that all collective licensing schemes should be assessed under the authorisation provisions of the TPA. This would probably follow naturally from its s.51(3) recommendation; but alternatively the IPCRC recommended that this be a direct legislative requirement.

The Copyright Tribunal has for many years provided an avenue for the resolution of disputes in relation to collective licensing. However, its coverage and terms of reference are incomplete and perhaps uncertain. In addition it has often been criticised for its slowness. According to the CLRC report the average time taken has been 22 months, with a "record" time of almost four years to resolve a recent dispute between APRA and the Federation of Australian Radio Broadcasters (FARB).[11] High cost also tends to make the Copyright Tribunal inaccessible to small users. The CLRC has recommended expanding the role of the Copyright Tribunal to review all licensing by collecting societies, whether by way of a statutory or non-statutory licence scheme or a "transactional licence" and to give it full discretion to substitute an alternative licence scheme if such is proposed.

The IPCRC recommended that the ACCC act as a gatekeeper in referring additional licence schemes to the Copyright Tribunal. It is understood that this recommendation arose from concerns that powerful collecting societies might use the threat of reference to the Copyright Tribunal as a means of forcing acquiescence by small users. However, one would be concerned that it might result in excessive bureaucracy. The Government did not accept the IPCRC's recommendation in this regard, not wishing to restrict recourse to the Copyright Tribunal. Perhaps the CLRC's recommendation that the Copyright Tribunal be allowed to require alternative dispute resolution will reduce the risk of this threat. The Government has, however, accepted that the ACCC, and by implication competition considerations, should play a greater role in relation to the Copyright Tribunal. In its response to the IPCRC, it proposed that the ACCC issue guidelines relating to the determination of "equitable remuneration" and that the Copyright Tribunal have the discretion to take account of the Guidelines and to admit the ACCC as a party to proceedings.

While in principle both competition and copyright regulatory bodies could regulate either the "input" and/or the "output" arrangements of collecting societies, a division of labour seems to have emerged in Australia, whereby input arrangements are subject to regulation under the competition laws and output arrangements are subject to regulation by the Copyright Tribunal. This approach was endorsed by the Competition Tribunal in its

[11] Now Commercial Radio Australia.

decision relating to APRA and by the CLRC in its report on the Copyright Tribunal.

APRA's input, output and distribution arrangements have recently been before the Copyright Tribunal, the Federal Court, the ACCC and the Competition Tribunal. As in other countries, a dispute over fees and a desire to engage in source licensing of particular works used in television programs, including commissioned works, prompted a dispute between APRA and the Federation of Australian Commercial Television Stations (FACTS).[12] Initially the matter was before the Copyright Tribunal and then before the Federal Court, when FACTS took action against APRA under the TPA. While claiming that its conduct was exempt by s.51(3), APRA then applied to the ACCC for authorisation of its input, output and distribution arrangements and the other proceedings were put on hold.

The ACCC considered that the APRA system conveyed certain efficiencies, in terms of transaction and enforcement costs and the benefits associated with blanket licences, as discussed earlier. However, it also involved costs associated with replacing potential competition between composers with monopoly licensing by APRA, with the disadvantages discussed above.

The ACCC found that these benefits were not uniform for all classes of users. In particular, the benefits were greatest for the multitude of small low value users, many of whom have unpredictable requirements for musical performing rights, for example shops and restaurants. The savings in transaction and enforcement costs would be greatest for these users and the blanket licence is particularly suited to their needs. For such low value users a competitive market is not a realistic alternative. However, by the same token, they have little recourse in relation to APRA's market power, given the costs associated with the Copyright Tribunal.

For many larger users, such as broadcasters and cinemas, the benefits of the APRA system were less obvious. The size, visibility and licence requirements of these organisations make monitoring of music usage easier and breaches of copyright unlikely. Furthermore, transaction costs might actually be higher under the APRA system where a limited range of music is prerecorded in films, television programs and advertisements. In those instances, music could potentially be source licensed along with synchronisation rights and in many cases the commissioning of the work.[13] A number of licences between composers and producers could replace the more numerous licences between APRA and downstream users (multiple television stations and cinemas). In these circumstances there appeared to be scope for direct licensing and competition between composers to produce a more competitive and efficient outcome.

[12] Now Free TV Australia Ltd.

[13] This occurs for cinema exhibition in the United States.

The ACCC was prepared to authorise APRA's arrangements subject to certain modifications to facilitate this source licensing, through opting out for commissioned works and more generally through a licence back arrangement for individual works and users. This would leave the APRA repertoire intact for other users but facilitate the development of competition where it might be feasible. However, for this to happen, there would also need to be some modification to the output arrangements, such that blanket licence fees were adjusted according to the use made of APRA's repertoire.[14] Otherwise users would have no incentive to engage in direct licensing. The ACCC also considered that the 50 per cent rule should be dropped to encourage efficient risk taking by commissioners of musical works. Finally they considered that a low cost alternative dispute resolution system was necessary to deal with the grievances of small users. APRA was not prepared to make the key competition adjustments, only to introduce GEMA style opt out provisions for entire categories of rights in relation to all works.[15] The ACCC considered this would be unlikely to result in any increase in competition: composers would be reluctant to opt out for an entire category of rights when not all users in that category wished to avail themselves of direct licensing. Authorisation was not granted and APRA applied to the Competition Tribunal for a review of the ACCC's decision.[16]

The Competition Tribunal took the view that the APRA system was essentially a natural monopoly, but to the extent that modifications could be made to inject competition without undermining the entire system, considered that this should occur. The Tribunal endorsed the ACCC's proposal for a non-exclusive licence back on a work by work basis and the introduction of a low cost dispute resolution system (but with different characteristics to those proposed by either the ACCC or APRA). Adjustments to the blanket licence schemes were left to the Copyright Tribunal to determine. APRA was given time to develop proposals in line with these requirements as a condition for authorisation. The specific proposals came back before the Tribunal and after some debate a modified version was endorsed. These are currently being reviewed by the ACCC, as the Tribunal's authorisation has expired.

One may have some concerns about the workability of the licence back scheme as introduced by APRA consequent to the Tribunal decision. The scheme differs in significant respects from that which had been proposed by the

[14] The United States Consent Decrees provide for per program licences for radio and television broadcasters, but prices for these licences have only recently been set at levels which make them attractive to these users.

[15] GEMA is the German performing rights collecting society, which provides opt out provisions in relation to entire categories of use, such as all television rights, but not on a work by work basis. These opt out provisions were themselves only introduced as a result of action by competition authorities.

[16] The authors of this paper were associated with the ACCC's decision and Jill Walker appeared as an expert witness before the Competition Tribunal on behalf of the ACCC.

ACCC. In particular, other than for television broadcasts, it requires composers to notify APRA two months in advance of all the persons to whom a sub-licence would be granted, performance dates and locations. It is hard to imagine how a film producer or a producer of pre-recorded Muzak or fitness centre tapes wishing to source licence performing rights would be able to specify all the cinemas or fitness centres which might perform the music and the dates on which that would occur. For television broadcasters, only one month's notice is required and only the date on which the sub-licence will take effect, rather than individual performance dates. However, they must notify the geographic location of the performance, the broadcasting or on-line service and the program or content segment in respect of which the proposed sub-licence will be granted, which may not be known when a program is being produced.

Following the Tribunal decision, the FACTS dispute went back to the Copyright Tribunal, where it was settled by agreement, introducing a new blanket licence scheme but with fixed fees. Some progress had to be made to modify blanket licences, otherwise there would be no incentive to engage in direct licensing. The CLRC proposal to give the Copyright Tribunal clear powers to substitute an alternative licence scheme seems useful in this regard. One would have expected the television stations would try to avail themselves of source licensing, particularly for commissioned works, but this has not occurred, perhaps because the APRA licence back scheme is unworkable. It may be doubted that other users will be able to avail themselves of the provisions, given the restrictive notification requirements, and this has been the experience to date. In the current proceedings before the ACCC, the main protagonists agitating for reform are the cinema exhibitors[17] and radio broadcasters. They point to the unworkable notification requirements in APRA's licence back scheme and the need for reform of blanket licences before source licensing can become a reality.

APRA, predictably, sees no reason to change its arrangements and seeks authorisation on identical terms to those previously granted by the Tribunal. It regards the fact that there have only been 14 cases in which the licence back provisions have been activated as evidence of the lack of need for reform. However, as others point out, lack of use may simply reflect their impracticality. APRA points to the fact that music on hold users, requiring access to only a limited number of works, have taken advantage of the provisions, but it is difficult to see how the major television, radio and cinema users of music would be able to do so. APRA also claims that cinema exhibitors and radio broadcasters would find it difficult in practice to negotiate source licensing. This may well be the case, but there is no reason why the system should deny them the opportunity to try.

[17] Like FACTS before them, their activity has been prompted by a dispute in the Copyright Tribunal, where APRA are seeking a 257% increase in fees, followed by Federal Court proceedings under the TPA.

The Tribunal limited APRA's authorisation to five years, in part because of the possibility that technological developments would affect the future balance between the costs and benefits of the APRA system. One such development is digital rights management (DRM), but submissions to the ACCC take diametrically opposite views in relation to its potential to facilitate source licensing. The radio broadcasters see it as a significant development, while APRA regards it as irrelevant and the television stations want reform to be delayed for a period of two years, until the full potential of DRM can be assessed. If it does have the potential to facilitate source licensing by television, film and radio producers, the case for reform of the APRA system would seem even stronger. However, it seems unlikely that it will have much implication for the multitude of small users with unpredictable requirements for the public performance of musical works. For these users, APRA's market power will likely remain, and with it the need for effective recourse to a low cost dispute resolution mechanism.

G. Conclusions

Collecting societies have efficiency advantages and monopoly characteristics, and need careful scrutiny by competition authorities to ensure a reasonable balance of social costs and benefits. For significant users of performing rights, there is scope for efficient source licensing of musical works. The current review of APRA's authorisation provides an opportunity for the system to be modified in such a way that this becomes a realistic possibility. It will then fall on the Copyright Tribunal to modify blanket licensing such that there is an incentive to do so where it is efficient. If the Government's proposal to facilitate a role for the ACCC in relation to Copyright Tribunal proceedings comes to fruition, this should assist the process further.

V

Ernst-Joachim Mestmäcker[*]

Collecting Societies

A. Position and Functions

Collecting societies acquire, administer and license copyrights and related rights, monitor their use, collect licence fees and distribute them among their members. Their legal status shows wide diversity from country to country. Their economic position is usually that of a monopoly for the specific rights they manage and for the territory of their home country. To that extent, territorial monopoly reflects the territorial nature of intellectual property rights, which are the product of national legislation. In jurisdictions where monopolies and restraints of competition are presumed to be incompatible with the public interest in free markets, collecting societies must justify themselves as natural monopolies or as a means of compensating for market failures.

In jurisdictions where the government is presumed to be the only true guardian of the public interest, collecting societies were or are at present organized as government monopolies.

In all jurisdictions with competition laws, collecting societies appear to be promising candidates for their full application. The threshold enquiries no longer pose any difficulties: collecting societies are undertakings, as are their corporate members (publishers) and right owners. The exercise and administration of copyrights in general, and the *droit moral* in particular, do not confer immunity from competition laws.[1] Market power in relevant markets is usually a foregone conclusion.[2] It follows that all market conduct and all contractual relations of collecting societies are open to scrutiny as restrictive practices or abuses of dominant positions.

These findings must not obscure the fact that collecting societies, even in the light of strict antitrust enforcement, are unique organizations. Most telling is the fact that, in the United States, they survived half a century of scrutiny under Section 1 and 2 Sherman Act. The Supreme Court famously ruled in *BMI v. CBS* that the *per se* prohibition of price fixing does not apply

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[1] Joined Cases 55 and 57/80 *Musik-Vertrieb Membran v. GEMA* [1981] ECR 147, 161.

[2] Case 78/70 *Deutsche Grammophon v. Metro,* [1971] ECR 487, 501; Case 127/73 *BRT v. SABAM and Fonior* [1974] ECR 313, 316; Case 22/79 *Greenwich-Film v. SACEM* [1979] ECR 3275, 3288; Case 7/82 *GVL v. Commission* [1983] ECR 483, 506.

to a standard practice of collecting societies, namely the blanket licensing of their repertoire to users.[3] This can also be seen from the consent decrees entered into by ASCAP and BMI half a century ago. They were last amended in 2001.[4] Antitrust authorities and courts considered monopolization and price fixing charges. The way out was a rule of reason approach combined with agreed upon remedies. The remedies imposed in the consent decrees show a gradual change of antitrust rules into court administered regulation. With frequent modifications, the consent decrees have been maintained to this day. They limit the activities of ASCAP and BMI to performance rights; regulate the licensing of users and the societies' internal administration; establish a "rate court"; and mandate non-exclusive acquisition of copyrights from members. Non-exclusivity implies that members are potential competitors for ASCAP and BMI, and that their markets are contestable markets. [5]

In the EU, all institutions are in agreement with the European Court of Justice that collecting societies are subject to the competition rules.[6] At the same time, there is consent that collecting societies are a valid form of rights management. The Commission finds the collective management of rights to be an economic, cultural and social necessity. Collecting societies are an integral part of the internal market and the information society.[7] The reference to social and cultural objectives points to an interface of competition and regulation that is different from the US compromise. These objectives are at odds with an economic analysis that looks to competition and efficiencies in the face of market failures. The dichotomy was forcefully expressed in a European Parliament Resolution of April 2004. I quote:

> "[Parliament] notes that the de iure and de facto monopolies which the collecting societies generally enjoy do not in principle pose a problem for competition, provided that they do not impose unreasonable restrictions on their members or on access to rights by prospective clients; [Parliament] recognises that collecting societies carry out tasks in the public interest and in the interest of right holders and users and, therefore, require a degree of regulation; [Parliament] emphasises the importance of competition law in examining possible abuses of monopoly by

[3] *Broadcast Music Inc. v. Columbia Broadcasting System,* 441 US 1, 10 (1979). A blanket licence gives the licensee the right to perform any and all of the compositions owned by the members, as often as the licensee desires, for a stated term. Fees for blanket licences are a percentage of total revenues or a flat dollar amount. The German law on the administration of copyrights and neighbouring rights of Sept 8, 1965, as amended May 8, 1989, requires collecting societies to offer "inclusive contracts" (*Gesamtverträge*) in respect of the rights and claims they administer. For the English text, see WIPO (1999): *Intellectual Property Laws and Treaties.*

[4] *US v. ASCAP,* 1950–1951 CCH Trade Cases 62, 595; *US v. BMI,* 1940–1943 CCH Trade Cases 56,096. The 2001 consent decree has not been published. See *Tolkmitt*, 2003, 111 n. 27.

[5] *Buffalo Broadcasting Co. Inc. v. ASCAP*, 744 F.2d 917, 928 (2nd Cir. 1984).

[6] *Supra* n. 2, paras. 6 and 8.

[7] Communication from the Commission to the Council, The European Parliament and the European Economic and Social Committee, *The Management of Copyrights and Neighbouring Rights in the Internal Market,* Brussels 16 April 2004 COM(2004) 261 final.

> collecting societies in individual cases so as to be able successfully to ensure rights management also in the future."[8]

The European Parliament even finds collecting societies to be "vehicles of public authority" insofar as they use distribution rules to promote non-commercial but culturally important tasks (Resolution No. 27).

In referring to the public interest tasks of collecting societies, the Parliament comes close to arguing in favour of the application of Article 86(2) EC. This provision privileges undertakings entrusted with the operation of services of general economic interest. The application of the rules of the Treaty in general, and of competition rules in particular, is excluded if such rules, in law or in fact, obstruct the performance of the particular task assigned to these undertakings. The balancing of public service obligations of Member States and the interests of the Community is charged with fundamental political tensions. If there are reasons to apply Article 86(2) to collecting societies, the European Court of Justice has not recognized them.[9] Irrespective of Article 86(2), in some jurisdictions there are statutory obligations that distinguish collecting societies from profit maximizing undertakings. These obligations may concern potential members as well as users. I refer to the obligation to accept for administration all copyrights offered to them and to the obligation to have in their tariffs due regard to the interests of the persons liable to pay the remuneration.[10]

The European Parliament's position in promoting collecting societies and their contribution to cultural creativity and the goal of cultural and linguistic diversity is significant in a more general way. Because of the wide divergences of public and private law organizations and their governance in Member States, Community law does not look to their status but to their actual functions. Even Member States and governments are not taken at their national and organizational face value but are submitted to a functional analysis that is informed by the objectives of Community law. A simple case in point is the treatment of government departments as undertakings if they engage in commercial activities. In the application of Community law to collecting societies, these general rules apply. Modifications follow, however, from the rights they administer. The Court of Justice recognizes these specific functions of copyright in the application of the fundamental rules that constitute the internal market.

The prohibition of quantitative restrictions and measures having equivalent effects under Article 28 EC limits the territorial protection of property

[8] European Parliament *Resolution on a Community Framework for Collective Management Societies in the Field of Copyrights and Neighbouring Rights* (2002/2274) (INI) OJ C 92 [2002]. For a comparison with the Commission's view, see *Dietz*, *A*., 2004, 35 IIC 809–820.

[9] Case 127/73 *BRT v. SABAM and Fonior* [1974] ECR 313, 318; Case 7/82 *GVL v. Commission,* [1983] ECR 483, 504. For details of the voluminous Article 86(2) jurisprudence, see E-J Mestmäcker and H Schweitzer (2004), para. 34, pp. 868–891.

[10] Sections 6 and 13, German Copyright Administration Act. See notes 3 and 36.

rights in general and copyrights in particular. As far as the distribution of copyright-protected goods is concerned, it has always been recognized that the author "would have the first of the market" only.[11] After the first sale, the copyright is exhausted. The Court of Justice adapted the principle of exhaustion, traditionally related to national markets, to the common market.[12] There is, however, no principle of exhaustion for copyrights that are exploited through public performances. The *Coditel* Cases[13] protect the copyright owner's right of participation in the "normal exploitation of his work". The territorial limitation of the performance right limits the applicability of both the constitutional guarantee of the freedom to provide services and that of the competition rules. This principle applies to offline and online exploitation of copyright.[14]

The prohibition of discrimination for reasons of nationality is applicable to Member State legislation that makes the recognition of copyrights or neighbouring rights of nationals of Member States conditional upon reciprocity of these rights.[15]

Modifications in the application of competition rules may be necessary if and when they interfere with the legitimate economic and/or social and cultural functions of copyrights.

B. International Copyright Law on Global Markets

Goods and services protected by copyrights and neighbouring rights account for substantial shares of international trade and trade in the European Internal Market. The tension between the national creation and territorial protection of copyrights and their global use and exploitation has driven the development of international copyright law. After the classic Paris Convention (1884) and Berne Convention (1886), more than a century elapsed before intellectual property rights were addressed by international trade law as well. Most important is, of course, the "Treaty on Trade Related Aspects of International Property Rights", which is part of the WTO (TRIPs). The preamble to TRIPs is forthright and informative in this respect. Intellectual property rights are recognized and guaranteed as private rights that reflect the underlying public policy objectives of national systems. The

[11] Smith A. (1978), 23, at p. 83 (see bibliography).

[12] *Supra* n. 1, at para. 163, dealing with mechanical rights administered by a collecting society.

[13] Case 62/79 *Coditel v. Ciné Vog (Coditel I)* [1980] ECR 881; Case 262/81 *Coditel v Ciné Vog Films (Coditel II)* [1982] ECR 3381, 3401.

[14] Commission Decision of 8 Oct 2002*, IFPI/Simulcasting,* OJ L 107 [2003], para. 67, with respect to online exploitation.

[15] *Collins v. IMAT* [1993] ECR 5171.

challenge is to reduce the tensions flowing from the use and abuse of property rights when they interfere with international trade. Trade law obligations and sanctions are meant to reinforce the Bern and Paris conventions. There is even a carefully limited reference to license contracts that restrict competition (Article 40).

The WIPO-Copyright Treaty of 1996 is designed to address the impact of digital technologies on the protection of copyright. It provides for a right of distribution (Art. 6 (1)) and a right of communication to the public (Art. 8).[16]

A majority of collecting societies have organised themselves in two international organisations: CISAC[17] and BIEM.[18]

The international organisations of collecting societies closely follow major principles of the Berne Convention: territorial protection of copyrights, national treatment and reciprocity in the recognition of the internal governance of the affiliated societies. CISAC coordinates technical activities of the author's societies, to ensure their collaboration in this field and to introduce common tools between the societies, subject to the understanding, however, that each society is master of its internal organisation (Statutes, Article 4 III). One of the 'common tools' is a model contract of reciprocal representation for performance rights. These contracts create a worldwide network. In this network, every national collecting society owns or manages the world repertoire, particularly national copyrights owned by foreigners. The Court of Justice interpreted the contractual guarantee of national treatment as being in harmony with Section 5 of the Berne Convention.[19] In the words of the Court:

> "Consequently it is apparent that reciprocal representation contracts between copyright-management societies have a twofold purpose: First, they are intended to make all protected musical works, whatever their origin, subject to the same conditions for all users in the same member state, in accordance with the principle laid down in the international provisions; Secondly they enable copyright management societies to rely, for the protection of their repertoires in another State, on the organisation established by the copyright-management society operating there, without being obliged to add to that organisation their own network of contracts with users and their own local monitoring arrangements."

The reciprocal representation contracts have been amended through the 'Santiago Agreement'. The agreement authorizes each party to grant non-exclusive licences for the online exploitation of musical works belonging to the repertoire of the other party on a worldwide basis to users. Users are the

[16] For details, see WIPO (2002): *Intellectual Property on the Internet: A Survey of Issues*, available at http://www.wipo.int/copyright/ecommerceen/ip-survey.html, para. 47.

[17] The International Confederation of Societies, Authors and Composers (CISAC), statutes of 20/10/2004 G 704-0691 R 3.

[18] Bureau Internationale des Societés Gerant les Droits d'Enregistrement et de Reproduction Mechanique (BIEM), statutes modified by the general assembly, Barcelona, 28 September 2001.

[19] Case 395/87 *Ministère public v. Tournier,* [1989] ECR 2521, paras. 18–19.

content providers. As a rule, the society with authority to grant such licences is the society of the country where the content provider has its actual or economic location. The agreement entered into by all EU collecting societies has been notified to the Commission, which issued a Statement of Objections on 29 April 2004.[20]

BIEM deals with recording and mechanical rights. It is more ambitious than CISAC. Its counterpart from industry is IFPI.[21] The associated collecting societies and producers of phonograms and video gram products bargain for a model licence contract. BIEM and IFPI recommend that their associated members implement the model contract on the national level. The most crucial (and for obvious reasons the most delicate) topic is the system of remuneration and the level of royalties. In spite of BIEM and IFPI, and perhaps because of antitrust and competition law concerns, bargaining over royalties is frequently done on the national level. The conflicts to be expected are highlighted by a recent German arbitration board ruling on mechanical royalty rates. The arbitration board is charged with the resolution of tariff conflicts under the German statute for the administration of copyrights. The German IFPI proposed to GEMA, the German collecting society for musical copyrights, to reduce the prevailing royalty rate from 9.009 per cent to 5.6 per cent of the published price for dealers (PPD). The ensuing conflict and heated debate are a reminder that antitrust and competition rules are notoriously ineffective in preventing the exploitation of market power through unfair purchase or sales prices. The arbitration board ruled on April 15, 2005 that there was no cause to reduce the prevailing rate agreed upon by the parties some six years ago.[22] The board's decisions are recommendations. They become binding only if accepted by the parties. The party that does not accept the recommendation may apply to the appropriate court for a final decision.

Germany is one of the few EU Member States that provides for a comprehensive regulation of collecting societies and for conflict settlement with users. This is one of the reasons why the Commission is considering a directive that would harmonize the regulation of collecting societies (see below).

C. The Economics of Collective Management of Copyrights

The development and organization of collecting societies are case studies in the creation of markets, in transaction cost theories and the superiority of

[20] Case No. COMP/C/2 38.126, *GEMA + SACEM + 9 (Santiago Agreement).*

[21] The International Federation of the Phonographic Industry.

[22] Billboard BIZ; 30 April 2005, German mechanical rates unchanged. Sections 14–16 of the German Copyright Administration Law provide for the rules applicable to disputes to which a collecting society is party (see N. 3).

property rules over liability rules in the protection of copyrights and related rights.[23]

After copyright legislation provided for the protection of all public performances of the protected work, individual control and licensing by publishers or right owners proved unfeasible because of prohibitive transaction costs.[24] The pooling of rights by publishers and writers solved a host of joint problems: central contracting for standardized and high-volume repeat transactions; finding and organizing separate markets for different user groups taking into account their elasticity of demand as well as the interest of respective right owners. The elasticity of demand of users depends on the purposes for which the licence is needed. The tariff schedules of collecting societies with their multitude of different tariffs take into account the licensees' businesses and the value of the licence in that context. This practice implies systematic price discrimination.[25] However, such discrimination contributes to an optimal use of resources—that of copyrights. The resulting bargaining position favours collecting societies in search markets. In important industries, market structures are, however, close to bilateral monopolies. The major players of the entertainment industry active on global markets are frequently in a superior position *vis-à-vis* the territorially limited collecting societies.

Another key area where collective management is more efficient than individual management of copyrights is monitoring and enforcement. This applies to the monitoring of licensees as well as to the discovery of infringers. The individual enforcement of copyrights in the face of widespread consumption of all kinds of music is next to impossible. In the words of the US Supreme Court:

> ". . . ASCAP and the blanket license developed together out of the practical situation in the marketplace: Thousands of users, thousands of copyright owners, and millions of compositions. Most users want unplanned, rapid, and indemnified access to any and all of the repertory of compositions and the owners want a reliable method of collecting for the use of their copyrights. Individual sales transactions in this industry are quite expensive, as would be individual monitoring and enforcement, especially in light of the resources of single composers."[26]

The interest in the collective management of copyrights is not that of right owners as suppliers alone. Buchanan and Yoon analyze the limiting case

[23] For an excellent account of the development and organization of collecting societies as an example of private ordering and an alternative to compulsory licensing of intellectual property rights, see Menges R. P. (1999), at 1293.

[24] For a comprehensive review of the practice and economics of the licensing of performing rights, see Monopolies and Mergers Commission (1996): *Performing Rights,* London.

[25] Justice Stevens, in his dissent in *BMI v. CBS*, supra n. 3, at 32, stresses the economic discrimination implied in a blanket licence, and would have found the practice illegal as an unreasonable restraint of trade.

[26] *BMI v. CBS, supra* n. 3, at p. 20.

where all persons in a large group are assigned rights of exclusion such that each proposed use must secure the permission of all persons. If only one member of the group refuses to participate, the resource may not be used at all despite its potential value.[27] The frequent fragmentation of the ownership of copyrights points to such a "tragedy of anti-commons". Central licensing and internal distribution rules overcome this problem, reduce search and information costs as well as the risk of infringing unknown copyrights. This risk is eliminated if licence contracts contain indemnification clauses against claims by third parties.

Collective management and the blanket licence, according to the US Supreme Court, create a new product, "of which the individual compositions are raw material" (at p. 22). This reasoning takes care of the price fixing charges as well as the monopolization charge of enlarging statutory monopolies through their combination, similar to 'block booking' of copyrighted motion pictures.

There is an ongoing debate whether the organization of markets for performance rights by collecting societies is justified on the ground that these markets are natural monopolies.[28] There is little doubt, however, that the collective administration of copyrights is an efficient instrument of coping with the characteristics of copyright markets that are search markets. In some copyright markets, particularly in the record, radio and TV industries, search, information and monitoring costs are dramatically reduced by modern computer technologies. However, mass communication of copyrighted materials in these industries make it all the more important to overcome the barriers presented by fragmented copyrights. Fragmentation follows from split copyrights, aggravated through the passing of title after the owner's life to her or his heirs for 70 years.[29]

Equally important is another, qualitatively different aspect. Individual right owners are unable to make a market for their rights and they are helpless in dealing with the highly concentrated undertakings of the entertainment industry. The ECJ recognizes this role of collecting societies *vis-à-vis* powerful music users. The pooling of rights is a necessary condition if right owners are to have a bargaining position.[30] In the well-known merger case *Time Warner/ EMI*, the Commission stressed the beneficial effects of the countervailing

[27] Buchanan and Yoon (2000), 1, 4.

[28] Against such an assumption, see Katz A. (2002): *The Potential Demise of Another Natural Monopoly: New Technologies and the Future of Collective Administration of Copyright,* University of Toronto Law and Economics Research Paper No. 04-02, text available at http://ssrn.com/abstract=547802.

[29] In *Eldred v. Ashcroft,* 523 US 186 (2003), a majority of the Court found the extension of copyright protection in the US to seventy years after the life of the author to be constitutional.

[30] *Supra* n. 2, paras. 9 and 11. In *BMI v. CBS, supra* n. 3, the US Supreme Court refers to CBS as the giant of the world in the use of copyrights (see p. 14).

power of collecting societies in relation to dominant music users.[31] The merger (which, due to the Commission's objections was eventually abandoned) was found to create a collective dominant position in markets for recorded music and a single dominant position for mechanical, performance and synchronisation rights, the licensing of music rights for online delivery, for online (internet) music and music software. In finding market dominance for mechanical and performance rights, the Commission relied on the ability of the merged entity to raise rivals' costs by bypassing collecting societies. This potential also exists in the digital internet economy. The Commission considered in particular the merged entity's ability to withdraw its publishing business from collecting societies. This would be economically feasible with regard to mechanical rights and performance rights for broadcasting. The management of these rights was simpler than for other categories of performance rights. For performance rights in general, however, the policing activities of collecting societies included checking thousands of bars, discos and restaurants. This would be much more costly and difficult for any single publisher to duplicate. The result of bypassing would be that income for collecting societies would decrease and this would have to be reflected in the fees charged to competitors of the new entity who could not afford to bypass the collecting society. As a result, competitors' costs would further increase. In addition, and most importantly, once a dominant publisher has abandoned the collecting society, it would have the ability to exercise market power *vis-à-vis* its customers (para 132).

The ability of collecting societies to counter the market power of large users in the interest of their members implies, according to the Commission, cross subsidization of the different activities of collecting societies. Their ability to administer copyrights that require high search, monitoring and enforcement costs depends upon access to the lower-cost large scale users.

D. Regulation and Competition

Collecting societies bundle competing private interests of right owners, publishers, managers, right users, potential competitors and consumers into a coherent concept of conflict resolution in the public interest. The usual tools we use to accommodate conflicting interests point in different directions: right owners are customers *and* members of collecting societies; corporate governance law looks to efficient management, observance of fiduciary duties, accountability and neutrality of management towards members.

[31] Case No. COMP/M.1852 (14 June, 2000), *Time Warner/EMI*, Statement pursuant to Article 18 of Council Regulation No. 4064/89 and Protocol 21 of the EEA Agreement paras. 129–133.

Antitrust and competition law look to the elimination of collective restraints of competition and *ad hoc* intervention against abuses of dominant positions. Users expect the guarantee of fair rates and a level playing field in their access to copyrights. Some users would like to take over collecting societies or at least their management.

The answer to these partly conflicting and partly complementary interests is a mix of private law ordering, regulation and competition with undefined borderlines. At the EU level, Articles 81 and 82 EC are so far the only instruments of oversight over collecting societies. The Commission, after comprehensive consultations, proposes a combination of harmonized regulation and a new approach in the application of competition rules.[32]

1. Harmonized regulation

In order to promote good governance, the establishment of collecting societies should be subject to similar conditions in all Member States. The national authorities should take into account the proof of efficiency, operability, accounting obligations and a sufficient number of right holders.

Collecting societies should publish their tariffs and grant licences on reasonable conditions. Users should be in a position to contest the tariffs before courts or tribunals or with the help of public authorities. In relation to right owners, the principles of good governance, non-discrimination, transparency and accountability should be implemented.

In all Member States, adequate internal control mechanisms should be established.

The regulation of collecting societies must be accommodated by the application of competition rules. At present, this concerns the relation of Member State regulation to Articles 81 and 82 EC. Article 3 of Regulation 1/2003 deals with the relation of the Community competition rules and national competition rules. The precedence that Community rules take over Member State rules is modified for state legislation "that predominantly pursue an objective different from that pursued by Articles 81 and 82 of the Treaty".[33] It can be argued that the German Copyright Administration Law serves an objective that is basically different from the EC competition rules. The law does not, however, justify a blanket exemption. The test is whether the law in its application to individual cases makes it impossible for collecting societies to observe Articles 81 and 82 EC . A controversial case in point is the

[32] Communication from the Commission to the Council, The European Parliament and the European Economic and Social Committee, *The Management of Copyright and Related Rights in the Internal Market,* COM(2004) 261 final.

[33] According to recital 9, the provision is applicable to, but not limited to, the prohibition of unfair trading practices.

obligation of collecting societies to establish a distribution plan that promotes and privileges culturally important works and performances (§ 7, German Copyright Administration Law).

2. Code of Conduct

In addition to or as a substitute for regulation, the Commission is considering a new instrument: a code of conduct. *Tilmann Lueder*, head of the Commission's Copyright Unit, outlined a possible combination of formal guidance and voluntary cooperation:

"A second option is to issue *guidelines* on the management of copyright, including a minimum set of good practices on collection and distribution of royalties—in particular guidelines, on the distribution of royalties to right holders from neighbouring countries within the EU. This is the kind of formal guidance that collective rights managers could transform into a code of conduct. The Commission stands ready to assist the collective rights managers in formulating codes of conduct."[34] (emphasis added)

3. Directive on Services

The regulation of collecting societies takes on new significance in light of the Commissions' Proposal for a Directive on services in the Internal Market.[35] Most important and most controversial is the country of origin principle. According to this principle, a service provider is subject only to the law of the country in which she is established and Member States may not restrict services from a provider established in another Member State. The principle is well established in the Community Courts' jurisprudence with respect to the "four freedoms" that constitute the internal market. According to this jurisprudence, a service that is legal according to the rules of one Member State must be accepted as legal by all other Member States, even if these rules are different from or are conflicting with the rules applicable to their own citizens.[36] This jurisprudence and the Directive lead to a situation where competitors may be subject to divergent and even conflicting regulations. The internal market without prior harmonization leads to "systems competition". Without the new Directive, Member States are, in exceptional cases, entitled

[34] Lueder T. (2005): "*Legislative and Policy Developments in the European Union*", paper prepared for the 13th Annual Conference on International Intellectual Property Law on Policy, Fordham University School of Law, New York, 31 March 2005, text available at http://ec.europa.eu/internal_market/ copyright/docs/docs/fordham2005_en.pdf.

[35] COM(2004) 3.

[36] For an overview, see Mestmäcker and Schweitzer (2004), § 2 V.

to apply their own regulation for overriding reasons of the public interest if they observe the prohibition of discrimination and the principle of proportionality. Under the Directive, there are general and transitional derogations. Section 17, paragraph 13, provides (in recognition of the principle of territoriality) for a general derogation from the country of origin principle in favour of copyrights and neighbouring rights. It is, however, a matter of interpretation whether this derogation would cover the services of collecting societies.

Application of the Directive to collecting societies without prior harmonisation would open the markets of Member States with regulation for unregulated collecting societies from other Member States. A distortion of competition appears to be inevitable if a collecting society with binding tariffs is to compete with a collecting society without such obligations.

E. The Application of the Competition Rules to Collecting Societies

I propose to review the application of the competition rules to collecting societies with respect to: the acquisition of rights by collecting societies from right owners and from other collecting societies; the licensing of a society's' repertory to users; and the abuse of a dominant position through high royalty rates.

1. Access of right owners to collecting societies

Most national laws impose upon collecting societies the duty to accept the administration of all rights that are part of their repertoire.[37] A refusal to deal with owners of rights that are part of a collecting society's repertoire infringes Article 86 if its refusal is based on the fact that the right owner's nationality is that of another Member State.[38] Neither Community law nor national laws oblige collecting societies to accept applications for membership by copyright holders who are citizens of third countries.

[37] Section 6 of the German Copyright Administration Law reads: "A Collecting Society shall be required at the request of a right holder to administer on equitable terms the rights and claims relevant to its sphere of activity if such right holder is a German within the meaning of the basic law (*Grundgesetz*) or national of another Member State of the European Union or of another contracting state to the agreement on the European Economic Area or has his place of residence in the territory to which this law applies and if effective administration of his rights and claims is not otherwise possible."

[38] *Deutsche Grammophon v. Metro, supra* n. 2.

Collecting societies used to accept contracts for the administration of rights only where right owners agreed to a complete exclusive transfer of their rights. Exclusivity means the obligation of right owners to transfer to the collecting society all their present and future rights in those works that are part of its repertoire. The exclusivity covers the rights at home and in foreign countries. It prevents the right owner from interfering with the societies' mandate by using, licensing or assigning her or his rights or parts thereof.

The Commission's original position was that individual or collective contracts providing for exclusive administration were incompatible with the Article 81 prohibition of restrictive agreements. However, this cartel argument was abandoned by the Commission in the early *GEMA* decisions.[39] The Commission accepted a modified exclusivity that was eventually implemented by European collecting societies. The representative corporate charter of GEMA provides that right owners may transfer to GEMA part of their rights only. The transfer must be limited to certain kinds of use, but cannot be limited to certain works. In the seminal *SABAM* case, the Commission, in its submissions to the Court, returned to the Article 81 EC prohibition but was rebuffed by the Advocate General and the Court. For reasons referred to earlier, the Advocate General adopted the position that the Article 81 EC prohibition was incompatible with the realities and the economics of the markets for copyrights.[40] The ECJ based its ruling not on Article 81 EC but on Article 82 EC. An abuse will be found only if the contractual arrangements go beyond what is necessary for the effective enforcement of copyrights against powerful music users. Account has to be taken of the interests of right owners to see their freedom to dispose of their rights not more restricted than is absolutely necessary. However, the obligatory transfer of all present and future copyrights becomes abusive if it is maintained for a long time even after the owner's resignation from the society.

Ever since *SABAM,* it has been a major concern of the Commission's policy that the free movement of members of collecting societies must not be restricted by overly long contractual obligations. The term to give notice of resignation must not be longer than 3 years. In case of a transfer of membership to another society, all acquired rights and privileges must be preserved.

2. Reciprocal representation contracts

As explained earlier (Section B), reciprocal representation contracts provide every participating collecting society with the world repertoire. These

[39] Commission Decision of 2 June 1971, OJ L 134 [1971]; Commission Decision of 6 July 1972, OJ L 166 [1972].

[40] *Supra* n. 2, para. 325.

contracts are non-exclusive. In response to references from French courts, the ECJ decided, in conformity with the conclusions of Advocate General Jacobs, that these contracts are not in themselves restrictive of competition.[41] These contracts may, however, infringe Article 81 EC if the refusal to allow direct access to a part of their repertoire by foreign users is due to a concerted practice (para. 23). The fact that there have been parallel refusals to license is not sufficient to prove concerted action if this behaviour can be accounted for by reasons other than the restriction of competition. Such a reason, according to the Court, might be that copyright management societies of one Member State would be obliged to organize its own management and monitoring system in another country (para 22).

3. Simulcasting

The present system of reciprocal representation contracts leads to a one-stop shop in Member State markets. The Commission proposes a system of Community-wide licensing. That would require the grant of a single licence by a single collecting society in a single transaction for exploitation of the licensed right throughout the Community.[42] The Commission considers its *Simulcasting* decision of 8 October 2002 to be a model for such Community-wide licensing.[43] The decision grants an exemption under Article 81(3) EC for agreements of phonogram collecting societies. The agreement deals with the remuneration rights of phonogram producers for the simultaneous transmission by radio and TV station via the internet of sound recordings included in their broadcast of radio and/or TV signals. Broadcasters may obtain a Europe-wide licence from any society within the EEA. Every collecting society that grants a multi-repertoire/multi-territory licence must take into account in its global licence fee the sum of individual national fees determined individually by each of the participating collecting societies (paras. 67, 68). The Commission recognizes that this is indispensable because of the territorial limitation of performance rights and because of the obligation of collecting societies to guarantee the effective exploitation of the

[41] *Ministèr public v. Tournier, supra* n. 19, at para. 2573.

[42] Collective Management Communication 1.2.4.

[43] Case No. Comp/C 2/38.014, *IFPI "Simulcasting",* OJ L 107 [2002]. Collective management Communication 3.4 (III). Officials of the Commission consider the *Simulcasting* decision to be a landmark for the further application of competition rules to collecting societies. See Mensching (2003); the Committee on Legal Affairs and the Internal Market, *Draft Report on a Community Framework for Collecting Societies in the Field of Copyright, and on the Commission Report to the Council, The European Parliament and the Economic and Social Committee on the Question of Authorship of Cinematographic or Audiovisual Works in the Community*; Mendes Pereira (2003), 44–49; Ungerer (2003); Wainwright (2003), Sections 63–68; Capubianco (2004), 113–121. For a critical analysis, see Mestmäcker (2005), 63–137 (the publication includes French and Spanish versions of the article).

rights of their members. There is, consequently, little or no price competition between the participating societies. In order to improve the "useful advantage of users", the Commission insisted that the parties adopt a new kind of licence. This licence must distinguish the fee for the use of the protected work and the fee for the administration costs attributable to the licensing of users. The services to the users—according to the Commission—involve the grant of the licence, the receipt of money and the definition of a framework pursuant to which reporting, accounting and monitoring can take place (para. 74). The Commission expects price competition from the split of copyright fees and administration fees that must reflect the actual costs incurred by the grantor society (para. 120).

I leave aside the question why undertakings are prepared to accept such an obligation. I do not deal with the question of whether the Commission had the power under Article 81(3) EC and the now-obsolete Regulation 17/62 to impose the separation of copyright fees and management fees. I propose to summarize the reasons why I find the Commission's reasoning ingenious but unconvincing. My thesis is that the Commission, by demanding a cost-based management fee in the licensing of users, loses sight of the reality of markets and the principles of competition.

The Commission mandates a new product based on the licensor's costs of doing business with the licensees. However, there is no demand on the part of licensees for the management services of licensors. A licence contract certainly covers the grant of the licence, which the Commission, however, considers to be a part of a separate management service (para 74). The management services of collecting societies, which the Commission attributes to users, are in law and in fact the subject matter of the representation contracts between collecting societies.

The obligation of undertakings to reveal to customers and competitors their costs of doing business is incompatible with the legitimate self-interest of independent undertakings and with effective competition.

The Commission argues that each undertaking is expected to be able to determine the costs applicable to different services. However, for economic and legal reasons, that is not an apposite argument for justifying the disclosure of such costs as "administrative fees". Determination of the costs applicable to different products may be a requirement of efficient business administration. It does not follow, however, that the costs so determined indicate appropriate pricing policies. The allocation of costs is part of an entrepreneurial decision taking into account the competitive situation and the elasticity of demand. This applies particularly to overhead costs. And the costs of the collective administration of copyrights are predominantly overhead costs.

The Commission repeatedly refers to a possible connection between high administrative costs and high copyright royalties. In *SACEM,* which is discussed presently, the Court considered the criteria for abusive pricing under Article 82. The ruling does not indicate that, within the framework of Articles 81(3) or 82, collecting societies might be required to distinguish in their tariffs between genuine copyright royalties and administrative fees. On the contrary, the ruling acknowledges that a blanket licence is compatible with the legitimate functions of collecting societies.[44]

The Commission's principal argument in favour of separating copyright royalties from administrative fees is that such separation is a necessary condition of competition among collecting societies. However, such a requirement to disclose costs is incompatible with a principle the Commission emphasizes elsewhere (para. 80), namely the principle of independence of undertakings in competition. Indeed, the Commission expects the participating societies to adopt behaviour that would be in violation of Article 81(1) EC if agreed upon autonomously. For independent competitors, the costs of rendering services to customers are their business secrets. They are necessarily disclosed to competitors if public management fees are to reflect the true costs of rendering these services. Disclosure of business secrets in relations between competitors is incompatible with that uncertainty of rivals' conduct that is the essence of competition. Contractual arrangements that eliminate such uncertainty, according to the Court of Justice, infringe Article 81(1) EC.[45]

Inadvertently, the Commission transgressed the borderline of the competition rules—and the boundaries of regulation as well. There is no precedent for a price or tariff regulation that translates the cost of doing business directly into prices. Price-cap regulation may serve as an example. Price-caps are imposed instead of cost-plus pricing rules in order to preserve the incentive for competitive (and secret) cost reduction. The obligation to publish management fees that reflect the real cost of management services kills the goose that is to lay the competitive eggs.

4. Abuse of a dominant position—unfair prices

Dominant undertakings abuse their position if they charge unfairly high or unfairly low prices (Article 82(a) EC). High prices are typical of exploitative abuses. For many years, the French collecting society SACEM has been the target of complaints by a group of discotheques. One complaint concerned the rate of royalty in France, which was consistently higher than in other Member States. Another complaint concerned the rate differences between discotheques and other large scale users of copyrights. The Court did not

[44] *BRT v. SABAM and Fonior, supra* n. 2, para. 16; *Ministère public v. Tournier, supra* n. 19, 2575. Advocate General Jacobs in this case (p. 2550) refers to the U.S. Supreme Court's opinion on the blanket licence in *BMI v. CBS*, *supra* n. 3.

[45] Case C-7/95 P *John Deere v. Commission,* [1998] ECR I-3111, 3164.

consider this point because it had not been argued by the parties, the Commission or the Member States.[46]

As for unfairly high prices, the Court in the *SACEM* cases used a market comparison approach: where markets in Member States are comparable, taking into account relevant objective differences, a comparison of rate levels is a useful indication of fair or unfair prices. If service fees are appreciably higher than in other Member States and the market conditions are comparable, the difference is indicative of an abuse of a dominant position. It is for the dominant undertaking to rebut the *prima facie* case thus made.[47] Part of the comparison is the level of administrative expenses. Where the staff of a management society is much larger than that of its counterparts in other Member States and, moreover, the proportion of the proceeds taken up by collection, administration and distribution expenses rather than by payments to copyright holders is considerably higher, it may be a lack of competition that accounts for the costs of administration and the high level of royalties.

A parallel Commission investigation of royalty rates under Article 82 was referred to the French authorities because there was no Community interest in the case. The Commission's decision to close the case was confirmed by the Court.[48]

Concluding remarks

Collecting societies are recognized worldwide as necessary for the efficient administration of copyrights and neighbouring rights. In relation to users, a blanket licence overcomes the complexity of fragmented copyrights aggravated by the duration of copyrights for 70 years *post mortem auctoris*. From the perspective of members, the pooling of rights that make blanket licensing possible is predicated upon the Society's internal management. Continuing registration of ownership and internal distribution rules are indispensable if statutory entitlements are to be translated into pecuniary rewards for right owners. Major differences in the policy approaches to collecting societies are due to the different weight accorded the *public_interest* in the effective participation of right owners in the exploitation of their works.

[46] In an advisory opinion, the French *Conseil de la Concurrence* found no illegal discrimination on this count because the different users were not in competition with each other. Opinion of 20 April 1993, reported in Schulze, *Rechtsprechung zum Urheberrecht*, *Ausland Frankreich*, 36 page 43.

[47] *Ministère public v. Tournier, supra* n. 19, para. 38; Joined Cases 110/88, 241/88 and 242/88*Lucazeau v. SACEM (SACEM II)* [1989] ECR 2811, para. 25.

[48] Case C-91/95 P *Tremblay v. Commission* [1996] ECR I-5547.

The application of competition rules to collecting societies is part of the constant and enduring challenge to find the right balance of self-administration and regulation.

VI

Frédéric Jenny[*]

EC Competition Law Enforcement and Collecting Societies for Music Rights: What Are We Aiming For?

In this brief paper we will deal only with collecting societies for works of music. The paper raises several issues about the market power, efficiency, technological environment and goals of collecting societies for musical rights. Questions are raised in order to shed light on the benefits to be expected from antitrust law enforcement against collecting societies for musical rights at a time when the development of music distribution *via* the internet is developing rapidly.

A. The monopoly power and efficiency benefits provided by collecting societies for holders of music rights are fast fading away

Collecting societies, which are organized on a national basis and represent one another in their respective territories, have traditionally been considered to have a two-sided monopoly. First, it was considered they held monopoly power *vis-à-vis* authors, performers and producers, the vast majority of whom have no choice but to entrust these societies with the administration and enforcement of their rights. Second, they are considered to have monopoly power *vis-à-vis* users of music who must obtain a licence to use musical works.

The efficiency rationale for collecting societies is assumed to be the ability for these organizations to enable the rights holders to have their rights managed without having to face prohibitive transaction costs.

However, both the assumed monopoly power and the assumed efficiency of collecting societies for musical works are questionable.

From the standpoint of monopoly power, three observations are in order. First, rights holders can ‘federate’ by granting their rights to publishers who then manage a large portfolio of rights and can, if they so wish, bypass

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collecting societies. Thus it is no longer true, if it ever was, that collecting societies necessarily have monopoly power over the authors of musical works.

Second, users of music are heterogeneous. They include private and public organizations and institutions as well as companies and industries. Collecting societies have allowed music publishers to become members of their organizations. According to WIPO,[1] the reason publishers are members of collecting societies is that: "under a publishing contract signed with an author, the publisher is authorized to reproduce the work and to sell copies to the public; he will also try to have riders written into the contract granting him the rights of performance and broadcasting, in the hope that this second serving of rights will add to his income. If music publishers are kept out of the collective management of rights of performance and broadcasting, the collective management organisation will not have access to the music publishing rights which are in the nature of 'extras' in the hands of publishers. This makes for serious gaps in the collective management, because published works have a vastly greater audience than handwritten works."

Third, concentrations in the media sector mean that there are a few powerful companies which are simultaneously the managers of large portfolios of works of music and the users of these (and other) musical works in their activities as broadcasters or organizers of live performances.

Fourth, the increasing importance of music broadcasting and music distribution over the internet are significant factors that change the picture of competition and allow competition among national collection societies. The management of online rights entails much lower collection costs than the management of off-line rights and any collection society can monitor these rights over the internet, irrespective of where users are located.

The situation seems to evolve rapidly with concentration in the media industry. Although it is still true that individual authors have no choice but to grant their rights to a collecting society, and that a small user (discothèque, restaurant, *etc.*) necessarily depends on a collecting society to have the right to play music, the scope of possible monopoly power for collecting societies is rapidly decreasing.

This becomes obvious when one looks at the beneficiaries of the rights managed by collecting societies. For example, in the case of *Gema,* in 1996/1997, 5% of members received 60% of the distributed money. Also, 80% of the fees being processed by the major collecting societies come from or flow to only five media companies: Universal (including what was Polygram), Warner, Bertelsmann, EMI and Sony.[2] The Monopoly and Mergers Commission report on Performing Rights Societies suggest that 10% of the

[1] WIPO (1998): *Intellectual Property Reading Material*, WIPO Geneva, pp. 374–375.

[2] Kreile R. and Becker J. (1997): "Collecting Societies in the Information Society: Economic And Legal Aspects", in *Gema Jarbuch 1996–7*, cited in Krestschmer M. (2002): "The Failure of Property Rules in Collective Administration", 24 *European Intellectual Property Review* 126.

members received 90% of the total distribution of performance royalties in 1994.

As John Temple Lang has put it:[3] "The assumption that no member or group of members of a society could negotiate licences is no longer true, if it ever was, of big sound reproduction companies which can and do enter into individual negotiations, in particular reproduction rights when the size and importance of licensee makes it worthwhile to do so . . ." Thus, it can no longer be said that collecting societies have a monopoly power over all users of music.

Collecting societies have less market power over rights holders and users of music because concentrated and powerful media companies, which are simultaneously holders and users of rights, are part of their membership as well as the most important source and destination of the funds they collect. These members could bypass collecting societies if they became dissatisfied with their services. Thus, the efficiency benefits brought about by collecting societies in terms of avoiding prohibitive collection costs for rights holders becomes less important.

It may be true that efficiency considerations are still valid for the collection of performing rights income from general performances (pubs, clubs, shops, airlines, concerts, *etc*.), which represent about half the income of collecting societies and which are quite costly to collect, but it appears far less true for the collection of performing rights income from broadcasting, even less so from internet broadcasting (a topic we will come back to) and possibly even less true for the collection of online rights.

B. What Is the Objective Function of Collecting Societies?

Antitrust is based on economic analysis, which tells us how profit-maximizing organizations could behave in a given structural environment and how, if they have market power, their behaviour could reduce consumer surplus and efficiency.

Collecting societies are assumed by antitrust authorities to behave like all other firms. If they have monopoly power and/or if they erect artificial barriers to entry (for example, through exclusive reciprocal representation agreements), it is assumed that they will be less efficient in the administration of rights and/or that they will charge more for their services, thus increasing the cost of music for users.

[3] Temple Lang J. (1998): "Media, Multimedia and the European Community Antitrust Law", 21 *Fordham International Law Journal* 1296.

Firstly, however, collecting societies do not have shareholders; instead they have members (owners of rights or media companies), who are also the same persons or corporations to whom they provide services. These members may have differing objectives in some regards, but they all have a direct interest in keeping the cost of rights management as low as possible.

It is traditionally assumed that collecting society members cannot, as is also the case of individual shareholders, closely monitor the behaviour of management and that therefore only the pressure of competition among collecting societies can keep the administration of rights as efficient as possible.

This hypothesis now seems a bit unrealistic if one considers that the most powerful members of collecting societies for music rights are the same media companies, which are the main single source of rights, the main users of rights, and the players who could most easily bypass collecting societies.

Yet the traditional hypothesis could still be correct if the governance rules of collecting societies made it difficult or impossible even for major members to closely monitor the behaviour of management. However, it seems that there are limits to the validity of this reasoning because media companies are likely to be very aware of the savings they can achieve if they bypass collecting societies and collecting societies are certainly aware of the negative impact for them of losing major music publishers as members.

Secondly, it must be noted that not all collecting societies have the same status because a number of them are non-profit organizations. European collecting societies often deduct a part of what they receive, which is then appropriated for cultural and social purposes (a type of behaviour which would be unlikely if they saw themselves as pure profit maximizers). The question then arises, when enforcing antitrust laws against these societies, as to whether one is justified in assuming that they are strictly profit maximizers, given the structure of their membership.

Third, collecting societies argue that they are more necessary today than they were in the past and have a specific role in protecting one particular category of members (i.e., individual authors) against the possible abuse of negotiating power by another category of members (i.e., media companies). In an article published in *Gema News,* Ernst Joachim Mestmäcker, expressed the following view:[4] "Authors' societies should also level out the structural imbalance existing between the many individual authors and the large corporations of the cultural industry. [. . .] In terms of competition law, the individual author may well also be treated like an entrepreneur when he places his rights on the market. This is true both as regards the relationship with music users and the relations with authors' societies. But equal treatment as a 'corporation' does nothing to change the fact that the individual author has no negotiating position when it comes to facing the bargaining strength enjoyed by the right owners". It is questionable whether collecting societies

[4] Mestmäcker E.-J. (1998): "Authors' Societies and User Conglomerates", 158 *Gema News.*

actually play this role and play it well, but if they are expected to play a role in this area, they are in a position quite different from that of the management of typical for-profit firms, which are not put in the position of protecting one set of client-shareholders against another. One could, of course, question the legitimacy of a private organization taking it upon itself the responsibility of acting as an arbiter between its customers. However, as was mentioned earlier, the fact that the clients of collecting societies are also their members sets them apart from traditional private firms.

To understand properly what competition among collecting societies could bring as a benefit in the area of efficiency gains, or how it might decrease what users have to pay for their services, and what tradeoffs those efficiency gains would entail, it would be useful to know more about their objective functions, their status (which varies from country to country) and their governance rules. Merely assuming that they are like any for-profit firm is in all likelihood an unjustified simplification of reality.

C. How Has EU Competition Law Dealt with Collecting Societies?

EU competition law has dealt with collecting societies in three main areas.

First, the relationship between collecting societies and their members. Collecting societies are considered to hold a dominant position *vis-à-vis* their members under Article 82. The Commission's *Gema* Decisions[5] prevent collecting societies from forcing their members to assign them all their rights and make it illegal for collecting societies to refuse membership to foreign rights holders. In *BRT/Sabam,*[6] the ECJ struck down certain clauses that forced members to assign their rights to collecting societies for five years after leaving the society. It is worth noting that, in the latter judgment, the Court indicated that retaining rights for five years after a member withdrew was "unfair" and therefore a violation of EU competition law.

Second, the relationship between collecting societies and the users of music. The goal of EU competition law is (for efficiency reasons) to facilitate the emergence of one-stop shopping for music users in the internal market while at the same time allowing users maximum flexibility of choice among collecting societies. EU case law has declared illegal clauses that make it possible for collecting societies to refuse to give direct access to their repertoire to foreign users, as such clauses are contrary to Article 81(1). EU case law has also established that charging high administrative fees could be an illegal abuse of

[5] OJ L 134 [1971]; OJ L 166 [1972].

[6] Case 127/73 *BRT v. Sabam* [1974] ECR 313.

dominance and has given some indications of how to establish such an abuse (see the ECJ's judgment in *Tournier*[7]).

Third, the reciprocal relationships between collecting societies. EU law has contributed to the elimination of clauses which make it impossible for a user to shop around. For example, in the Commission's *Simulcasting* Decision, the agreement between collecting societies for the rights of internet use of works broadcast simultaneously was amended to enable a broadcaster, if the signal transmitted came from an EEA country, to apply to any collecting society located in an EEA country to obtain a multi-territory and multi-repertory licence authorizing simulcasting. Thus, national collecting societies can compete with each other for the first time. After having been 'complementary' services, the collecting societies have become substitutable. More recently, the *Santiago* agreements (a set of bilateral agreements between collecting societies allowing for a system of competitive multinational licensing for online music obtainable from any European collecting society) were the object of a similar concerns by the Commission.

The relevant question is how useful the intervention of EU competition law has been.

The most significant contribution of EU competition law in this area has been an increase in the freedom of choice of rights holders in their negotiations with collecting societies (of which they are members) by enabling rights holders to assign to such societies only some of their rights, by allowing them to choose the collecting society to whom they assign their rights, and by making it easier for them to withdraw from a collecting society. Simultaneously, EU competition law has increased the freedom of negotiation of rights users by making it possible for them to make collecting societies compete for their business.

However, one should ask two questions: first, whether the possibilities opened by the contribution of EU competition law have led to effective competition among collecting societies; and second, whether increased competition among collecting societies is likely to increase economic efficiency.

First, the elimination of exclusivity clauses in reciprocal relationships among collecting societies has not increased competition because national collecting societies did not have an incentive to license foreign clients. Indeed, if they did so, other societies could and would retaliate. For example, as John Temple Lang states: "The Commission insisted that these reciprocal contracts must not be expressed to be exclusive. However this made no difference. The self interest of each society in being a monopoly for rights of each type in its own state and the absence of any pressure to be more efficient contributed to maintaining the status quo in spite of the broad hints from the Court that Sacem at least was inefficient".[8]

[7] Case 395/87 *Ministère Public v. Tournier* [1989] ECR 2521.

[8] See *supra* n. 3.

With this precedent in mind, one can assume that modifying the reciprocal Santiago agreements by eliminating the clause according to which a provider can only obtain a licence from the licensing society of the country where it is deemed to be established (2004), although a necessary condition for competition between collecting societies, will not necessarily lead to more competition even if performing rights societies maximize profits in some sense. Indeed, the structure of this industry (collecting society service providers) remains oligopolistic with barriers to entry. Collecting societies offer undifferentiated services, they usually have highly transparent rates, and they can relatively easily match any competitive aggression by other collecting societies. These conditions are not conducive to effective competition even if such competition is not forbidden by contractual agreements. If competition is to appear among collecting societies (in the area of musical rights), it will primarily be under the pressure of technological changes in music distribution and the threat of media companies bypassing them.

Second, the ECJ's criteria for establishing a possible violation of Article 82 by collecting societies does not rest on firm ground from the standpoint of economic analysis. In the *Sacem* case, the Court suggested that the fact that one (national monopolist) collecting society charged significantly more than collecting societies in other Member States for its collection services could be taken into consideration to establish whether it abused its dominant position. But this comparative approach raises, among other questions, the question of whether it is legitimate to exclude the possibility that all, several, or none of the European collecting societies abuse their dominant position. Second, as mentioned earlier, the status and membership of collecting societies make it somewhat difficult to consider them as pure profit maximizers to whom the concept of abuse of dominance is easily applicable.

Third, one must question what benefits increased competition among collecting societies for musical rights will bring in terms of efficiency gains. From this standpoint, the Commission may have promised more than it can deliver. In a recent speech, Herbert Ungerer stated:[9] "Rights management in the new online market is a topic of central importance to European music development and the development of the new online music services. We need a strong presence of European music and European culture in these new Europe-wide and global media. This means that we need new dynamism in marketing European music rights to the users of the rights who can expand European presences in those media. And it means that we need [to take] out restrictions and creating the competitive incentives to act efficiently and proactively."

[9] Ungerer H. (2004): "European music cultures and the role of copyright organisation—competition aspects", address to the European Music Cultures—Sound or Silence Conference, The Hague, 5 May 2004.

Increasing competition by eliminating territorial restrictions in the administration of rights may increase the efficiency of rights management. This may be particularly true for internet rights. Indeed, granting licenses in an online environment appears to be significantly different from granting licences in an offline situation. Because the control can be delocalized for collection of internet rights, any society can monitor the rights on the internet and territorial restrictions are no longer necessary for the effective administration of rights. Thus, when copyrighted goods are distributed via the internet (for example music, but perhaps also other works such as films) the rationale for monopolistic collecting societies disappears.

But it is questionable to say that increased efficiency in the collection of internet rights, if competition among collecting societies materializes, will in turn increase the presence of European music in the online market. If competition among European national collecting societies begins to occur, media companies active on the online market will presumably be able to deal with the national collecting society that offers the lowest collecting charge. But by virtue of the fact that each collecting society is able to give access not only to its own repertoire but also to the repertoires of all the other national societies, whether European or not, (via representation agreements), this lower charge will apply not only to the music coming from this country or to European music but also to the entire repertoire to which the collecting society can give access. Thus, whereas there may be gains for internet users due to the possibility that online music distributors, benefiting from lower charges for the collection of music rights, are able to come up with more attractive offers for online music distribution, and while this may increase the demand for the legal online distribution of music, it is not clear how this could strengthen European music and European culture.

Finally, there is some question about what effect, if any, lower collection costs of rights brought about by competition and technological changes in the collection of rights on the internet will have on the production of musical works themselves.

D. Concluding Remarks

There is some scope for a decrease in the cost of collection of at least some music rights and of an increase in competition among collecting societies due to the growing role of the internet in music distribution at a global level. However, while applying European competition law to territorial restrictions which no longer have any justification might create a possibility of competition among national collecting societies, it will not necessarily be sufficient to bring about the expected decrease in collection charges. Furthermore, the concept of abuse of dominance cannot easily be applied to the behaviour of collecting societies because they cannot be considered to be profit-maximizing firms in the traditional sense. Finally, the goals pursued by public authorities with respect to collecting societies are not necessarily the same as those assigned to competition law. The enforcement of EU competition law *vis-à-vis* collecting societies has been only moderately effective and somewhat simplistic. One question to be asked is whether competition law enforcement with respect to collecting societies of music rights has been (somewhat inappropriately) used to try to solve governance problems of collecting societies and whether other tools (such as sectoral regulation) might not have been more appropriately used for the task.

VII

Rafael Allendesalazar and *Roberto Vallina*[*]

Collecting Societies: The Usual Suspects

A. Introduction

Since the early days of EC competition law, collecting societies have been closely scrutinised by the European Commission and the European Court of Justice.

This comes as no great surprise: collecting societies are "guilty" of at least two original sins from an EC competition law perspective. Firstly, collecting societies are national in scope, whereas one of the central aims of EC competition policy is to integrate national markets into a single and unified European market.[1] Secondly, collecting societies are associations that enable authors[2] to cooperate and sell jointly (*i.e.,* through licensing) their rights under common commercial conditions (including price).[3] Moreover, this cooperation could also enable the resulting association to occupy not only a dominant position but also a legal or *de facto* monopoly.

These circumstances alone already make collecting societies one of the usual suspects for competition authorities. This has resulted in a number of decisions of the Commission and judgments of the ECJ concerning a wide range of activities of collecting societies (fees, management of rights, agreements between collecting societies, etc.). However, as we will see in this paper, there is also a third element that puts collecting societies in the group of usual suspects: legal uncertainty as to what they can and cannot do.

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[1] See Wood D. (2001): "Collective Management and EU Competition Law", speech delivered at the Vth SGAE Conference on Intellectual Property, Competition and Collective Management, Madrid 12–14 November 2001, text available at http://ec.europa.eu/comm/competition/speeches/text/ sp2001_025_en.pdf.

[2] Or publishers, performers, etc.

[3] US courts have been faced with repeated antitrust challenges to the global licensing practices of the American performing rights societies (known as "blanket licensing"), *i.e.,* Broadcast Music Inc. (BMI) and the American Society of Composers, Authors and Publishers (ASCAP). In the landmark judgment given in 1979 in the case of *Columbia Broadcasting System v. BMI and ASCAP,* 441 US 1, S Ct 1551 (1979), the US Supreme Court ruled that "blanket licensing" could not be considered to be a *per se* violation of the Sherman Act, but must instead be evaluated in terms of a *rule of reason* analysis. See Opinion of AG Jacobs in Case 395/87 *Ministère Public v. Tournier* [1989] ECR 2521, point 47 *et seq.*

The main purpose of this paper is to review the existing case law from the point of view of collecting societies. We will try to demonstrate that, despite the apparent clarity of the principles laid down by the case law, some inconsistencies remain and that, in any event, the practical consequences of such principles are unclear. The case law is fairly plain regarding what collecting societies cannot do, but that is certainly not the case when it comes to what collective societies *can* do. Many difficulties remain for those charged with advising a collecting society as to the degree of freedom they have in view of the existing EC case law on competition.

With that in mind, this paper focuses exclusively on two issues concerning collecting societies from an EC competition law perspective: pricing and management of rights (*i.e.* the relationship between collecting societies and their members).

B. Collecting Societies and Article 82 EC

According to settled case law, under Article 82 EC an undertaking in a dominant position has a special responsibility not to allow its conduct to impair genuine, undistorted competition on the common market.[4]

The question now is how this special responsibility affects collecting societies. In this context it is useful to remember that, according to settled case law, the actual scope of the special responsibility imposed on an undertaking in a dominant position must be considered in the light of the specific circumstances of each case.[5] The Commission has further added that the scope of this special responsibility must be determined:[6] (i) in relation to the degree of dominance held by the undertaking in question; and (ii) having regard to the special characteristics of the market which may affect the competitive situation.

As to the degree of dominance, collecting societies usually enjoy a dominant position in the relevant geographic market or even a legal or *de facto* monopoly.

With regard to the special characteristics of the market we should take into account, first of all, the fact that collecting societies manage and license copyrights on behalf of their members. Secondly, as the ECJ stated in *SABAM II*, in applying Article 82 EC to collecting societies, account must be

[4] Case 322/81 *Michelin v. Commission* [1983] ECR 3461, at para. 57.

[5] Case T-83/91 *Tetra Pak International SA v. Commission (Tetra Pak II)* [1994] ECR II-755, at para. 114; Joined Cases C-395 & 396/96 P *Compagnie maritime belge* [2000] ECR I-1365, at para. 114.

[6] Commission Decision of 25 July 2001, Case COMP/C-1-36.915, *Deutsche Post AG* (OJ L 331 [2001]), at para. 103.

taken of all the relevant interests in order to ensure a balance between them.[7]

In this regard, the ECJ noted that collecting societies are associations whose object is to protect the rights and interests of their individual members against, in particular, major exploiters and distributors of musical material, etc. (hereinafter, the "record industry majors").[8] In order to ensure a balance between the interests at stake, the ECJ stated in *SABAM II* that restrictions aimed at safeguarding the rights and interests of collecting societies' members *vis-à-vis* the record industry majors do not breach Article 82 EC if they comply with the principle of proportionality.[9] In other words, the practices must not exceed the limits of what is necessary for the attainment of the legitimate aims pursued by the collecting society.[10]

Therefore, collecting societies find themselves in a delicate situation. On the one hand, it is not unusual for them to enjoy a *de facto* monopoly or even, depending on the Member State, a legal monopoly. If the special responsibility of a dominant undertaking becomes more onerous depending on the degree of dominance,[11] we have to conclude that collecting societies need to be extremely careful in order to ensure that they do not overstep the limits arising from Article 82 EC.

On the other hand, the ECJ has acknowledged that some practices which in principle could be in breach of Article 82 EC are justified in view of the special characteristics of the activities and objectives pursued by collecting societies, provided that such practices comply with the principles of proportionality and indispensability.

What then, if any, are the conclusions to be drawn from this? The first and more obvious conclusion is that the general principles laid down by the case law with regard to Article 82 EC are not automatically applicable to collecting societies. Account must be taken of the context of the practices in question as well as of the objectives pursued by the collecting society. Secondly, the "safe harbour" provided by the case law for collecting societies is a limited one. As collecting societies enjoy significant market power, they should be particularly vigilant in assessing the impact of their practices and

[7] Case 127/73 *BRT v. SABAM and Others* [1974] ECR 313, at para. 8.

[8] See also, in the context of Article 81 EC, Case 395/87 *Ministère Public v. Tournier* [1989] ECR 2521, at para. 31.

[9] In this regard, see Commission Decision of 12 August 2002, in Case C2/37.219, *Banghalter & Honem Christo/SACEM* (*'Daft Punk'*), text available at http://www.europa.eu.int/comm/competition/index_en.html.

[10] Case 127/73 *BRT v. SABAM* [1974] ECR 313, at para. 11; Case 395/87 *Ministère Public v. Tournier* [1989] ECR 2521, at para. 31.

[11] This idea is closely linked to the concept of "super-dominance". This expression has been developed by some commentators, but has never been used by the Community Courts or the Commission, and it remains to be seen whether it will be. See in this regard, Whish R. (2003): *Competition Law* (20, 5th edition, pp. 189–190. (However, to be noted that AG Fennelly used this notion in the Opinion delivered on 29 October 1998 in *Compagnie Maritime Belge*—see supra n. 6, at para. 136.)

should try to ensure that any restrictions they may impose are carefully justified.[12]

C. The Level of Fees

The level of fees charged by collecting societies has been a traditional issue in EC competition law in recent decades. The fees charged by a collecting society fall mainly into two categories: those charged to the users of its repertory and those charged to members for the management of their rights.

So far, the case law has only been concerned with the first kind of fees. In principle, we could take the view that the principles laid down with regard to the fees charged to users of collecting societies' repertories should also apply to the fees charged to collecting societies' members. However, there is an important difference: the relationship between a collecting society and its members is not a simple commercial relationship. An author is not merely a "client" of his or her collecting society; he or she is also an affiliated member of the entity. Therefore, the members of the collecting society must comply with the internal rules laid down by its governing bodies, in which the said members are directly or indirectly represented (for instance, through a general assembly). In such cases, when a conflict arises between a collecting society and one or more of its members, it is important to ascertain whether the problem is mainly a civil issue related to the internal relations between the collecting society and its members or whether, on the contrary, the issue at stake has a significant impact on competition.[13]

As for the users of the collecting society's repertoire, the case is significant. The main cases dealing with the level of fees charged to users are *Tournier*,[14] *Lucazeau*,[15] and *Basset*,[16] all of which related to the level of fees applied to copyright users.

In *Basset,* the ECJ was asked a very specific question on the interpretation of Article 82 EC. The ECJ had to rule on whether Article 82 EC prevented a collecting society (SACEM), which enjoyed a *de facto* monopoly, from charg-

[12] See the Opinion of AG Jacobs in Case 395/87 *Ministère Public v. Tournier* [1989] ECR 2521, para. 43.

[13] See also the Commission Decision of 12 August 2002 in Case C2/37.219, *Banghalter & Honem Christo/SACEM* (*'Daft Punk'*), at page 8. The Spanish publishers' case also illustrates this dilemma (*see infra* Section E.4). Both the Spanish Competition Service and the Spanish Competition Court pointed out that the major publishers were challenging the very same internal rules of SGAE that they had not objected to when internally approved (Decision of the Spanish Competition Court of 16 December 2004 in proceedings no. R 609/04, *Ediciones Musicales*).

[14] Case 395/87 *Ministère Public v. Tournier* [1989] ECR 2521.

[15] Joined Cases 110/88, 241/88 and 242/88 *Lucazeau and Others v. SACEM and Others* [1989] ECR 2811.

[16] Case 402/85 *G. Basset v. SACEM* [1987] ECR 1747.

ing two fees on the public performance of sound recordings. Pursuant to national law, SACEM charged the users of its repertoire (i.e., discothèques) a performance royalty as well as a "supplementary mechanical reproduction fee". Both royalties were also applied for the use of sound recordings coming from Member States where such a supplementary fee was not provided for in national law.

The ruling of the ECJ was straightforward: the fact that a collecting society makes use of the possibilities made available to it by national legislation for the collection of fees does not in itself constitute a breach of Article 82 EC. Nevertheless, the ECJ added an important exception to this statement. Despite the fact that the application of two fees for the same use of the work is not in itself contrary to Article 82 EC, it could be that the combined royalties may be such that Article 82 EC applies. The approach of the ECJ tries to avoid formalisms: from the perspective of Article 82 EC, the key element is the global fee charged to the user and not how that fee is perceived.

This ruling thus left open the question of the amount of the royalties and its compatibility with Article 82 EC. This question was one of the main issues in the *Tournier* and *Lucazeau* cases two years later, where the ECJ was asked to rule on a number of questions involving the fees charged by SACEM to discothèques.

It was argued that the fees charged by SACEM were excessive and therefore amounted to unfair trading conditions within the meaning of Article 82 EC. The discothèque operators, supported by the Commission, put forward two arguments in this respect. Firstly, they argued that the fees were unfair on the grounds of the differences between the rate applied to discothèques and that applied to other large-scale users of recorded music, such as radio and television stations. The ECJ rejected the argument, because the discothèque operators did not put forward any basis on which a reliable and consistent comparison could be made.

The Commission and the discothèque operators also suggested another criterion in order to show that the fees applied by SACEM were unfair: a comparison with the rates applied in other Member states. The ECJ accepted this criterion, and held that a national collecting society imposes unfair trading conditions where the royalties which it charges to discothèques are appreciably higher than those charged in other Member States, provided that:

(i) The rates are compared on a consistent basis; and
(ii) The collecting society cannot justify such differences by reference to objective dissimilarities between the situation in the Member State concerned and the situation prevailing in other Member States.

Before analysing in depth the reasoning of the ECJ in the *Tournier* and *Lucazeau* cases, we would like to make a preliminary observation. In our view, the key element when ascertaining whether the fees charged are unfair is the comparison of rates on a consistent basis. There is no reason to suppose that this comparison can only be made with the fees charged in other Member States. The ECJ explicitly chose this criterion because it was the only one where the data filed by the parties made possible a comparison of rates on a consistent basis.

Therefore, the application of other criteria can be foreseen (*e.g.,* the fees charged in the past, or those charged to other users), provided that rates are compared on a consistent basis. Moreover, we think that, to compare rates is not the only acceptable method in order to ascertain whether the fees charged are unfair within the meaning of Article 82 EC. At least in theory, we could try to analyse whether the price is excessive or unfair in relation to the economic value of the service provided.[17] We will come back to this point later at Point 4.

At first glance, these three rulings seem to establish some relatively clear principles on the application of EC competition law to collecting societies. However, these cases proceed from narrow bases and difficulties remain for anyone charged with advising a collecting society as to the degree of freedom that it has in relation to its fees policy. A number of questions arise if we try to apply the *Tournier* and *Loucazeau* cases to the fees policy of a collecting society:

- Whom to compare with? (1);
- What does "appreciably higher" mean? (2);
- The burden of proof and the objective dissimilarities that could justify the application of different rates (3); and
- Is the *United Brands* doctrine applicable? (4).

1. Whom to compare with?

The first problem lies in whose rates should be compared with those of the collecting society in question. The language used by the ECJ varies from "the situation prevailing in all the other Member States"[18] to "[the fees] charged in other Member States".[19]

In the *Tournier* and *Lucazeau* cases, the data submitted to the ECJ showed that SACEM's fees were clearly well above the fees charged in all the other Member States.[20] However, the reality is rarely that clear. On many occasions

[17] See Case 27/76 *United Brands v. Commission* [1978] ECR 207; Case 226/84 *British Leyland* [1986] ECR 3263; Case 26/75 *General Motors* [1975] ECR 1367.

[18] Joined Cases 110/88, 241/88 and 242/88 *Lucazeau* [1989] ECR 2811, at para. 254.

[19] Case 395/87 *Ministère Public v. Tournier* [1989] ECR 2521, at para. 37.

[20] However, the accuracy of said data was strongly criticized in the submissions made before the ECJ. To that effect, see the Opinion of AG Jacobs in Case 395/87 *Ministère Public v. Tournier* [1989] ECR 2521, para 61.

the fees charged by the collecting societies are very different from one country to another but still similar to the rates applied in a number of Member States. Thus, if we have to advise a collecting society on the lawfulness of its fees, whom should we compare it with? Moreover: what if the fees charged are well above the fees charged in the majority of Member States but similar to the fees charged in some other Member States?

If we interpret *Tournier* and *Lucazeau* narrowly, we could take the view that the fees applied by a collecting society are unfair only if they are appreciably higher than the fees charged in all the other Member States. However, such a narrow construction of *Tournier* and *Lucazeau* seems neither logical nor consistent with the expression "[the fees] charged in other Member States", which is the one most frequently used by the ECJ in the said rulings.

In fact, in the *Tournier* and *Lucazeau* cases the data submitted by the Commission suggested that the applicable rates in France were many times higher than the rates applied in the UK or in Germany, for example, but only slightly higher than those applied in Italy.[21]

So the question is: what constitutes a valid point of reference in order to establish that the fees charged by a collecting society are unfair?

The answer is unclear because the facts in the *Tournier* and *Lucazeau* cases were rather unusual. It is indeed quite exceptional for the fees of a collecting society to be above the rates applied in all other Member States and well above the rates applied in the majority of the Member States. In practice, the context is a little more complicated. In that light, can we apply the *Tournier* and *Lucazeau* rulings to situations that can be clearly distinguished from the facts of those cases?

Let us imagine that we are advising a collecting society in the European Union. This collecting society applies one of the highest fees out of the 25 Member States, together with another 7 collecting societies. The fee charged per licence by our collecting society is 207 euros. The fees charged in the other 7 countries range from 200 to 210 euros per licence. There is a second group of 9 countries in which the fees range from 100 to 115 euros per licence. Finally, there is a third group of 8 countries, in which collecting societies charge between 50 and 60 euros per licence. This situation is summarized in the following table:

	Fees charged	**Number of countries**
Cluster A	200–210	8
Cluster B	100–115	9
Cluster C	50–60	8

[21] *Ibid.*

What should be the answer in this case? The solution is not self-evident.

The fees charged by our collecting society are higher than the fees charged in Group B countries and much higher than the fees charged in Group C countries. On the one hand, such differences could be regarded as indicative of the unfairness of the fees charged. On the other hand, there are seven other countries that apply similar rates, which is a strong argument in favour of the compatibility of the fees charged with Article 82 EC.

Let us push the example a little further. If we ask the collecting societies in Group A to justify the differences between their fees and the fees applied in the countries of Groups B and C, it will be difficult for them to justify such differences objectively. Nevertheless, the point is that it will also be difficult for collecting societies in Group B to justify the differences between their rates and the rates applied in Group C countries.

The answer becomes even more difficult if we consider that, unless we read the *Tournier* and *Lucazeau* cases as an invitation for collusion or a single price policy for collecting societies in the EU, the existence of differences between the rates applied in each Member States seems not only legitimate but also absolutely normal.

The conclusions that can be drawn from these cases are not straightforward. The situation described in the *Tournier* and *Lucazeau* cases is quite unusual and the principles laid down in those cases do not provide clear guidance for the majority of the situations that collecting societies must face. The first conclusion could be that absolute legal certainty is hard to achieve for a collecting society unless it aligns its fees with the lowest prevailing in the EU.

The second conclusion could be that the criteria that determine that the fees charged are unfair are essentially subjective. It is neither the level of the fee itself nor the value of the service rendered to the user that determines whether the fee is unfair or not. The legality of the fees charged by a collecting society depends mainly on the policies adopted by other collecting societies and not on the behaviour of the collecting society itself.

2. “Appreciably higher”

The second problem is to ascertain when the fees charged are “appreciably higher” than those charged in other Member States within the meaning of the *Lucazeau* and *Tournier* cases.

Those cases came to the ECJ within the framework of Article 234 EC (i.e., at the material time, Article 177 EC), so the ECJ did not decide on the facts of the case but merely offered general guidance to the referring court. However, the ECJ took into account the fact that the findings of an inquiry conducted by the Commission indicated that the fee charged by SACEM was “many times higher than that charged in other Member States”. It is worth noting that the results of this inquiry took into account the global amount due to SACEM in view of the fact that, pursuant to French legislation, discothèque operators must pay not only a performance royalty but also a "supplementary mechanical reproduction fee".

Once again, the solution reached is consistent with the context in which those cases were referred to the ECJ: a fee that is many times higher than the fees applied in other Member States is regarded as unfair within the meaning of Article 82 EC. The problem now is how to apply this case law to the vast majority of the cases involving the fee policies of collecting societies, because such extreme situations are rare. As we have said before, we think that differences between the fees charged by collecting societies are perfectly legitimate (unless we read the *Tournier* and *Lucazeau* cases as an invitation for collusion), but it is unclear how big these differences can be.

The fact that the ECJ also used the expression "many times higher"[22] is only helpful if we construe the expression "appreciably higher" narrowly. In fact, it is relatively unusual for the fees charged by a collecting society to be "many times higher" than those charged in other Member States. But then: is a 30% difference "appreciably higher"? Or should it be a 60% difference? Or even a 120% difference?

The case law on collecting societies does not provide any practical guidance to answer these questions. In another context, the ECJ considered in *United Brands* that a difference of "about 7% [. . .] cannot automatically be regarded as excessive and consequently unfair".[23] But it is clear that this case, which concerned the price differences applied by one company on its sales in different Member States of a homogeneous agricultural product (bananas), cannot be applied to the fees charged by a collecting society.

Taking the question still further, what should we understand by the rates applied in a Member State? Many collecting societies have a standard fee but also apply discounts for prompt payment to members of trade associations who have negotiated agreements which include more favourable conditions, or to users who provide a service to the collecting society (*e.g.*, by providing additional information that facilitates the collection of royalties), etc. If the discounts are substantial (and it is not unusual for discounts to be cumulative), the standard fee could be high but the fees actually charged could be significantly lower. Despite the fact that the ECJ did not explicitly deal with this issue in *Tournier* and *Lucazeau*, we think that the most reasonable approach is to compare the rates usually applied in each Member State.

One conclusion on this point could be that the *Tournier* and *Lucazeau* cases only provide guidance in extreme cases. The solution is straightforward only

[22] The expression "many times higher" could also be open to discussion. Does it mean one and a half times higher? Two times higher? Three or more times higher?

[23] Case 27/76 *United Brands v. Commission* [1978] ECR 207, at para. 266.

if the fees are many times higher than those applied in other Member States. In contrast, the solution is ambiguous in the vast majority of cases where the differences between the rates applied in the Member States are not so huge. At the end of the day, this implies considerable legal uncertainty for a collecting society unless all of them operate the same pricing policy.

3. The burden of proof and objective dissimilarities that could justify the application of different rates

The ECJ ended its reasoning in *Tournier* and *Lucazeau* by stating that a collecting society would not be imposing unfair trading conditions if, despite having charged its users fees that are appreciably higher than those charged in other Member States, the collecting society in question is able to justify the difference by reference to objective and relevant dissimilarities between copyright management in the Member State concerned and copyright management in the other Member States.

Thus, rates that are appreciably higher than those applied in other Member States do not automatically fall within the scope of Article 82 EC. It must first be examined whether there are any objective and relevant dissimilarities between Member States that justify these differences. Furthermore, it follows from the ECJ's reasoning that, in such cases, the burden of proof shifts to the collecting societies.

What objective and relevant dissimilarities could justify the existence of differences between the rates applied in the Member State in question and in the other Member States?

The ECJ stated that dissimilarities should be both "objective" and "relevant". In our opinion, the fact that the dissimilarities must be 'objective' suggests that such dissimilarities must not depend on the will of the collecting society in question. In addition, the fact that the dissimilarities must be "relevant" suggests that such dissimilarities must be proportional to the volume of the differences between the fees applied. Minor dissimilarities should not justify major differences.

It is interesting to note how narrowly the ECJ interpreted the concept of "objective and relevant dissimilarities" in *Tournier* and *Lucazeau*. For instance, SACEM submitted that the differences were justified on the grounds of the traditionally high level of protection provided by copyright in France. In particular, pursuant to national law, SACEM applied two royalties to discothèque operators: a performance royalty plus a "supplementary mechanical reproduction fee". Such additional payment for the right of mechanical reproduction also existed in Belgium, but not in any of the other Member States.

As AG Jacobs rightly pointed out, the fact that national legislation provides for an additional payment for the right of mechanical reproduction is a factor which will necessarily boost the overall level of the royalty charged in those countries.[24] However, the ECJ dismissed this argument and applied its earlier judgment in *Basset* in quite a formalistic manner:[25]

> "As the Court held in its judgment in Case 402/85 *Basset v. SACEM* [1987] ECR 1747, the supplementary reproduction fee may be seen, disregarding the concepts used by French legislation and practice, as constituting part of the payment for an author's rights over the public performance of a recorded musical work and therefore fulfils a function equivalent to that of the performing right charged on the same occasion in another Member State".

We share the view of AG Jacobs. If French law provides for a "supplementary mechanical reproduction fee", this must be interpreted as a measure aiming to increase the incomes of right holders. Thus, the existence of this "supplementary mechanical reproduction fee" should have been taken into account as an objective dissimilarity.

However, it might well be the case that the ECJ implicitly considered that this objective dissimilarity was not "relevant". The existence of a supplementary fee could justify some increase in the rates applied, but it is hardly reasonable that it could justify the application of rates many times higher than those applied in Member States where the users need only pay a single royalty. If this was the reasoning of the ECJ, it should have acknowledged that such a supplementary fee was an objective dissimilarity which, however, could not in itself justify the existence of such broad differences in royalties.

SACEM also put forward two other arguments in order to justify the differences between the rates of royalty charged in the various Member States: (i) the high prices charged by discothèques in France; and (ii) the level of its operating expenses and, in particular, its monitoring expenses.

The ECJ not only refused to accept those arguments, but virtually considered these circumstances to be evidence of the unfairness of the fees charged. The ECJ considered that the high prices charged by discothèques may be the result of several factors, including the high level of royalties payable for the use of recorded music. As for the level of operating expenses, the ECJ considered that, if the level of operating expenses of a collecting society is considerably higher in one Member State than in the other Member States, "the possibility cannot be ruled out that it is precisely the lack of competition on the market in question that accounts for the heavy burden of administration and hence the high level of royalties".

In *Tournier* and *Lucazeau,* the ECJ was extremely reluctant to accept any of the arguments advanced by SACEM in order to justify the existing differences in royalties, requiring a high standard of proof. This approach might well be explained by the particularities of the case, *i.e.,* the

[24] Opinion of AG Jacobs in Case 395/87 *Ministère Public v. Tournier* [1989] ECR 2521, points 60 and 62.

[25] *Ibid.*, at para. 40.

extraordinarily large differences between the rates applied in France and those applied in other Member States.

The problem is that, however exceptional the circumstances of *Tournier* and *Lucazeau* were, these cases remain the sole applicable case law for collecting societies and probably remain two of the few cases in which Article 82 EC has been applied to excessive pricing. Accordingly, the current state of the law seems to impose on collecting societies a high standard of proof as regards the existence of objective and relevant dissimilarities that justify the application of different rates. Under these circumstances, it is extremely difficult for collecting societies to ascertain whether or not such objective and relevant dissimilarities are present and, in consequence, whether or not the rates applied are compatible with Article 82 EC.

4. Is the *United Brands* doctrine applicable?

In his opinion delivered in *Tournier* and *Lucazeau,* AG Jacobs pointed out that:

> "There is a consensus in the observations made to the Court in these cases that the test laid down in Case 27/76 *United Brands v. Commission* [1978] ECR 207 for determining whether a price is excessive in relation to the economic value of the benefit conferred is inapplicable in the present context. In that judgment, the Court indicated (in relation to a product rather than a service) that it is necessary to consider whether the difference between the costs actually incurred in producing the product and the price actually charged is excessive and, if the answer to that question is in the affirmative, whether a price has been imposed which is unfair in itself or when compared with competing products (paragraph 252 of the judgment). It is pointed out that it is inappropriate in the present context to proceed on the basis of a comparison between the costs of production and the selling price because it is impossible to determine the cost of the creation of a work of the imagination such as a musical work. It is moreover impossible to compare the level of the royalties charged by Sacem with that of competitors because there are none".

We respectfully disagree with some of these points. We agree that the cost structure approach is not applicable, but we think that it is indeed relevant to ascertain whether or not the price bears a reasonable relation to the economic value of the product or service supplied.

In *United Brands*,[26] the ECJ stated that a price is excessive and therefore unfair within the meaning of Article 82 EC when it has no reasonable relation to the economic value of the product or service supplied. This approach can also be found in *General Motors*[27] and *British Leyland.*[28] The ECJ considered

[26] Case 27/76 *United Brands v. Commission* [1978] ECR 207, at para. 250.

[27] Case 26/75 *General Motors* [1975] ECR 1367.

[28] Case 226/84 *British Leyland* [1986] ECR 3263.

that there are many ways to prove that a price bears no reasonable relation to the economic value of the product or service supplied.

Amongst these, the ECJ suggested in paragraph 251 of *United Brands* that a price can be deemed excessive by making a comparison between the selling price of the product in question and its cost of production, which would disclose the amount of the profit margin. In paragraph 252 of *United Brands*, the ECJ developed the following test:

> "[T]he questions to be determined are whether the difference between the costs actually incurred and the price actually charged is excessive, and, if the answer to this question is in the affirmative, whether a price has been imposed which is either unfair in itself or when compared to competing products."

We agree that the analysis of production costs and cost structure is an approach that is hard to transpose to collecting societies, where one cannot have full recourse to the objective notions of fixed costs, variable costs, profit margin and sale price of competitive products or services.[29] However, the analysis of the dominant undertaking's cost structure was only one possible method of proof. As the ECJ explicitly stated, "other ways may be devised—and economic theorists have not failed to think up several—of selecting the rules for determining whether the price of a product is unfair".[30]

The *ratio decidendi* in *United Brands* (as in the *General Motors* and *British Leyland* cases) was whether or not a price bears a reasonable relation to the economic value of the product or service supplied. This is indeed an approach that could be applied to collecting societies. Indeed, the economic value of the work for the user has traditionally been a point of reference in copyright law for determining the equitable remuneration for the use of a given work.[31]

Further, if the cost structure approach is not applicable to collecting societies, we think that other ways to prove that a price bears no reasonable relation to the economic value of the product or service supplied might be devised, including those proposed by economists.[32]

For instance, some commentators have proposed that, in order to evaluate whether the remuneration level for the use of a work protected by copyright is unfair within the meaning of Article 82 EC, it could be useful to take account of:[33] the importance of the music for the user in question, the proportion of the remuneration paid for the music in relation to other charges cited by the user (*e.g.,* the costs it incurs in selling drinks, its tax burden and

[29] Desurmont T. (1989): "The *SACEM* and Competition Law", 140 *Revue Inernationale du Droit d'Auteur* 116.

[30] Case 27/76 *United Brands v. Commission* [1978] ECR 207, at para. 253.

[31] In this regard, see Case C-245/00 *SENA* [2003] ECR I-1251, at para. 37.

[32] See, e.g., the proposal of Evans D. and Padilla J. for a 'modified *per se* illegality' rule or for a 'structured rule of reason'—see Evans D. and Padilla J. (2005) "Excessive Prices: Using Economics to Define Administrable Legal Rules", 1 *Journal of Competition Law & Economics* 97.

[33] See Desurmont T. (1989), *supra* n. 30.

the costs of paying its employees), and the remuneration level of copyrights in the Member State in question.

An analysis combining the economic value of the service supplied (*i.e.,* the value of the use of a work in trade) and the comparison of the rates applied in the different Member States has several advantages. First, it introduces an objective criterion. It does not rely solely on the level of the rates applied in other countries, which is not only difficult to determine, as we have seen, but which also could vary from time to time. Second, it is linked to consumer welfare: high prices would be acceptable if the value of the service provided is proportional to such prices. Third, it will result in a more consistent policy approach, because the principles applied to collecting societies' fees policies would be similar to those applied to other undertakings under Article 82 EC. Fourth and finally, it will be also consistent with the principles applied in the area of copyright law.

D. Fees and Discrimination

An interesting Spanish case gives us another perspective on the application of EC competition law to the fees of collecting societies: the problem of discrimination between users.

In 1997 a Spanish music recorder, VALE MUSIC, requested a licence from SGAE for the use of its repertoire as a phonogram manufacturer. SGAE granted such a licence, and from 1997 to 1999 it charged VALE MUSIC the standard fee for that kind of licence.

In 1999, VALE MUSIC applied for a reduction of the fees equivalent to the reduction applied to phonogram manufacturers who were members of AFYVE (a manufacturers' association). SGAE refused to grant this rebate because VALE MUSIC was not a member of AFYVE. SGAE argued that the members of AFYVE benefit from more favourable terms because they undertake to respect special contractual commitments and because AFYVE undertakes to assist SGAE in the collection of royalties, providing it with information and support. Furthermore, the agreement reached between SGAE and AFYVE also provided for the implementation of an amicable dispute resolution mechanism.

VALE MUSIC did not accept the arguments of SGAE and filed a complaint before the Spanish competition authorities in 1999. VALE MUSIC submitted that SGAE's decision to apply the standard fee to it was discriminatory and thus an abuse of a dominant position under Spanish competition law.[34] In 2002, the Spanish Competition Court[35] found that

[34] The relevant provision was Article 6(1)(d) of the Spanish Competition Act (*Ley 16/1989 de 17 de Julio de Defensa de la Competencia*), which is equivalent to Article 82 EC.

[35] That is, the *Tribunal de Defensa de la Competencia*.

SGAE had abused its dominant position by charging discriminatory prices since it applied a rate to VALE MUSIC that was 37% higher than the rate applied to AFYVE'S members.

The decision reached by the Spanish Competition Court is somewhat surprising. The court assumed that VALE MUSIC was in a similar situation to the members of AFYVE, a trade association that groups together phonogram manufacturers. It failed to take account of the fact that afyve‘s members have agreed special contractual conditions in their licence agreements and that they account for more than 80% of the sales in the Spanish music market.[36]

Three facts seem to explain the decision reached in this case. Firstly, the Spanish Competition Court paid special attention to the fact that SGAE enjoyed a *de facto* monopoly. The Spanish Competition Court seemed to implicitly consider that the limitations arising from competition law for an undertaking enjoying a "super-dominant" position are particularly strict, and that discriminatory practices are thus seldom justified.

Secondly, the fact that the difference in the rates applied was 37% had a decisive influence. In the view of the Spanish Competition Court, none of the arguments put forward by SGAE justified such a big difference. The implicit reasoning seemed to be that the cost savings arising from the SGAE-AFYVE agreement were not proportional to the reduction granted.

Thirdly, SGAE refused to negotiate the economic terms of the licence with VALE MUSIC, whereas under the Spanish Copyright Act, collecting societies would be under a duty to negotiate the terms of the licence with the users of their repertoire. Assuming that collecting societies and users obtain efficiencies through collective negotiation, this case illustrates once again how hard it is to justify specific fee levels or practices once they are under the scrutiny of competition authorities. Granting rebates to users belonging to trade associations is a perfectly accepted practice all over the EU.[37]

Three facts seem to explain the decision reached in this case. Firstly, the Spanish Competition Court paid special attention to the fact that SGAE enjoyed a *de facto* monopoly. The Spanish Competition Court seemed to implicitly consider that the limitations arising from competition law for an undertaking enjoying a "super-dominant" position are particularly strict, and that discriminatory practices are thus seldom justified. Secondly, the fact that the difference in the rates applied was 37% had a decisive influence. In the view of the Spanish Competition Court, none of the arguments put forward by SGAE justified such a big difference. The implicit reasoning seemed to be

[36] Indeed, two of the members of the Spanish Competition Court issued dissenting opinions: from their point of view, the members of AFYVE and VALE MUSIC were not in an equivalent situation.

[37] Such is the case, for example, in Germany, Belgium and France, amongst others. As for France, see the Opinion of AG Jacobs in Case 395/87 *Ministère Public v. Tournier* [1989] ECR 2521, points 12 *et seq.*

that the cost savings arising from the SGAE-AFYVE agreement were not proportional to the reduction granted. Thirdly, SGAE refused to negotiate the economic terms of the licence with VALE MUSIC, whereas under the Spanish Copyright Act, collecting societies would be under a duty to negotiate the terms of the licence with the users of their repertoire. Assuming that collecting societies and users obtain efficiencies through collective negotiation, this case illustrates once again how hard it is to justify specific fee levels or practices once they are under the scrutiny of competition authorities. Granting rebates to users belonging to trade associations is a perfectly accepted practice all over the EU. It can significantly reduce the operational costs of collecting societies and eliminates potential sources of conflict with users. However, in the case of collecting societies, it is extremely hard to measure cost savings in a precise manner and almost impossible to demonstrate that such costs savings are proportional to the rebate granted.

E. Management of Rights: The Relationship between Collecting Societies and Their Members

We have already seen that a collecting society occupying a dominant position may breach Article 82 EC if it imposes unfair conditions on its members for the management of their rights. We have also seen that restrictions that are limited to what is necessary for the attainment of the legitimate aims of such collecting societies do not fall within the scope of the Article 82 EC prohibition.

These principles are especially important within the framework of the management of the rights of collecting societies' members. The leading cases in this area are the Commission's decisions in the *GEMA* cases[38] and the ECJ ruling in *SABAM II.*[39] More recently, the Commission's Decision in *Daft Punk* gave a further turn of the screw to this case law.[40]

Prior to these decisions, it was not unusual for collecting societies to require their members to assign all their copyrights without drawing any distinction between specific categories of such rights. In the cases we have mentioned, the Commission and the ECJ decided that such practices could fall within the

[38] Commission Decision 71/224/EEC of 2 June 1971, Case IV/26.760, *GEMA I* OJ L 134 [1971]; Commission Decision 72/268/EEC of 6 July 1972, Case IV/26.760, *GEMA II*, OJ L 166 [1972]. See also Commission Decision 82/204/EEC of 4 December 1981, Case IV/29.971, *GEMA III*, OJ L 94 [1981], and *GEMA IV,* in European Commission (1985): *XVth Report on Competition Policy*, at point 81.

[39] Case 127/73 *BRT v. SV SABAM and Others* [1974] ECR 313.

[40] Commission Decision of 12 August 2002, Case C2/37.219, *Banghalter & Honem Christo/ SACEM* ('*Daft Punk*'), decision available at http://www.europa.eu.int/comm/competition/index_en.html.

scope of Article 82 EC if they exceeded what was necessary for the attainment of the collecting societies' legitimate aims.

The first case in which the Commission attempted to strike a balance between the interests at stake was *GEMA I*.[41] In that case, the Commission ruled that, in order not to breach Article 82 EC, the German collecting society GEMA should give its members the right to assign their rights to it in their entirety or to divide them by category and to assign different rights to different authors' rights societies.[42] GEMA's members should also be entitled to withdraw the administration of certain categories of rights after due notice at the end of each year and without losing membership status or incurring penalties.

In *GEMA II,* the Commission provided further guidance on the implementation of the principles laid down in *GEMA I* with regard to the management of rights.[43] According to the Commission, it was incumbent on GEMA to give its members a choice: they could elect either to withdraw the administration of one or more of the seven original categories from the collecting society after due notice at the end of the year or, alternatively, to withdraw the administration of certain forms of utilization from GEMA after due notice at the end of a maximum of three years.[44] On the other hand, the Commission also accepted that, in order to ensure an effective management of rights, GEMA was entitled to require the assignment of all the works of a member within a single category or utilization right and to refuse the withdrawal of rights other than by category or utilization right.

In *SABAM II,* the ECJ was asked to decide on the compatibility with Article 82 EC of, amongst other practices,[45] the policy of a collecting society (SABAM) to require its members to assign all their present and future rights.

[41] Commission Decision 71/224/EEC of 2 June 1971, Case IV/26.760, *GEMA I*, OJ L 134 [1971].

[42] The categories of rights in *GEMA I* were: (i) the general performing right; (ii) the broadcasting right (including rights of transmission); (iii) the right of cinematographic representation: (iv) the right of mechanical reproduction and diffusion (including transmission rights); (v) the right of cinematographic production; (vi) the right to produce, reproduce, diffuse and transmit on bases for optical sound; (vii) the right of exploitation resulting from technical development or a change in the law in the future.

[43] Commission Decision 72/268/EEC of 6 July 1972, Case IV/26.760, *GEMA II*, OJ L 166 [1972].

[44] The 'forms of utilization' consist of a list of 12 'utilization categories'. They are similar to the original seven categories, but more narrowly defined. These utilization categories are: (i) the general performance right; (ii) the broadcasting right; (iii) the public performance right of broadcasting works; (iv) the television rights; (v) the public performance right of televised works; (vi) the right of cinematographic exhibition; (vii) the right of mechanical reproduction and diffusion; (viii) the public performance right of mechanically produced works; (ix) the cinematographic production right; (x) the right to produce, reproduce, and diffuse on video tape; (xi) the public performance right of works reproduced on video tape; and (xii) the exploitation rights resulting from technical developments or future changes in the law.

[45] An example of such a practice would be the collecting society continuing to exercise the rights assigned by a member for five years after their withdrawal, without having to give an account of its actions.

The ECJ scrutinised SABAM's practices and held that, in this area, account must be taken of all the relevant interests. In particular, with regard to the management of the rights of members of collecting societies, the ECJ stated that it is necessary to ensure a balance between the requirement of maximum freedom for authors, composers and publishers to dispose of their works and the requirement for the effective management of their rights by a collecting society.

Furthermore, the ECJ held that it is also necessary to take account of the fact that a collecting society is an association whose object is to protect the rights and interests of its individual members against, in particular, major exploiters and distributors of musical material, such as broadcasting bodies and record manufacturers, etc. (*i.e.,* the record industry majors). This principle was restated in *Tournier*, where the ECJ held that:

> "Copyright-management societies pursue a legitimate aim when they endeavour to safeguard the rights and interests of their members vis-à-vis the users of recorded music. The contracts concluded with users for that purpose cannot be regarded as restrictive of competition for the purposes of Article [81] unless the contested practice exceeds the limits of what is necessary for the attainment of that aim."

The ECJ thus laid down a proportionality test: measures that do not exceed the limit necessary for the attainment of the legitimate aims of collecting societies do not fall within the scope of the prohibition laid down by Article 82 EC.

In all these cases, both the Commission and the ECJ tried to ensure a careful balance of interests. However, this approach was recently called into question to a certain extent. As the former Deputy Head of Unit for Media and Music Publishing at the Directorate General for Competition in the Commission has said, that balance of interests was fixed in the analogue era, so the Commission considered it necessary to review it in the digital era.[46]

This was indeed the Commission's approach in the so-called *Daft Punk* case. In December 1996, the two members of the music group Daft Punk wanted to become members of SACEM but wished to individually manage their rights for internet exploitation, CD, DVD etc. They therefore applied to become members of SACEM in respect of all of their rights in France except for two categories of rights: the right for mechanical reproduction and diffusion (including transmission rights), and the right of exploitation resulting from technical development or a change in the law in the future. SACEM refused their application and informed them that partial withdrawal of rights was possible only if another collecting society was appointed in respect of the excluded rights.

Consequently, they lodged a complaint with the Commission, alleging that SACEM was in breach of Article 82 EC. The Commission interpreted this

[46] Wood D. (2001), *supra* n. 2, at p. 30.

refusal as a ban on individual management of the rights in question, which would only be compatible with Article 82 EC if it did not exceed the limit absolutely necessary for the attainment of the legitimate aims pursued by SACEM. In this regard, SACEM submitted that the ban on individual management of rights: (i) protected artists from the unreasonable demands of the record industry; and (ii) prevented a creaming-off of the most valuable rights, which would be contrary to the solidarity principle that governs the collective management of rights.

The Commission considered that such a policy did not fulfil the proportionality test laid down in *SABAM II* and therefore amounted to an abuse of SACEM's dominant position. The Commission based its reasoning on the following three arguments.

(i) Firstly, technical progress enables authors to manage some of their rights individually. The new technologies have reduced transaction costs, making individual management economically and technically possible.
(ii) Secondly, individual management of rights reinforces the moral rights of the authors. Authors who individually manage their rights can control the way their works will be used more effectively.
(iii) Thirdly, the fact that few collecting societies impose limits of this kind proved that these measures were not indispensable.

In view of the Commission's position, SACEM agreed to modify its statutes. The members of SACEM are thus entitled to apply for partial withdrawal of the rights assigned and each application will be considered individually by SACEM on a case-by-case basis. The amendment also provided that both the application and the decision of the executive board of SACEM must be reasoned.

The Commission accepted this modification, pointing out that SACEM can only "exceptionally" refuse an application for the individual management of rights, and can only do so provided that such refusal is reasoned and based on objective reasons. The Commission explicitly acknowledged the right of SACEM to examine each application for individual management of rights in order to monitor:

(i) The "quantitative" evolution of the individual management of rights; and
(ii) The technical problems that could arise in connection to the individual management of rights.[47]

[47] The Commission provided some examples: identification and categorization of internet-related rights, identification of the forms of utilization of works according to rights categories, identification of the rights still managed by the collecting society and the impact on the reciprocal representation agreements concluded with other collecting societies.

The *Daft Punk* case opened the door for the individual management of rights, but questions remain with regard not only to how the individual management of rights should be implemented but also to the consistency of the Commission's reasoning.

In order to analyse this, we will first of all discuss the Commission's reasoning (1). Secondly, we will deal with the conditions on which a collecting society can refuse an application for the individual management of rights (2). Thirdly, we will see how the *Daft Punk* case could affect the fees charged by collecting societies (3). Fourth and finally, we will see how the *Daft Punk* doctrine was applied in a recent Spanish case concerning SGAE (4).

1. The reasoning of the Commission in *Daft Punk*

The reasoning of the Commission in *Daft Punk* is unclear and inconsistent with the arguments put forward by SACEM.

SACEM alleged that some limits on the individual management of rights were justified, as such limits: (i) protect artists from the unreasonable demands of the record industry; and (ii) prevent a creaming-off of the most valuable rights, which would be contrary to the solidarity principle.

The Commission considered that those arguments were insufficient. According to the Commission, the restrictions imposed by SACEM did not fulfil the proportionality test because: (i) technical progress makes the individual management of rights economically and technically possible; (ii) individual management of rights reinforces the authors' moral rights over their works, providing them with more control over the utilization of their works; and (iii) finally, the fact that only a few collecting societies impose limits of this kind proved that these measures were not indispensable.

The Commission's reasoning seems to some extent to be inconsistent with the arguments put forward by SACEM.

The fact that the individual management of rights is now technically and economically possible does not change the fact that the assignment of rights to a collecting society protects artists from the unreasonable demands of the record industry. It must be borne in mind that, according to the ECJ, collecting societies are associations whose "object is to protect the rights and interests of its individual members against, in particular, major exploiters and distributors of musical material, such as radio broadcasting bodies and record manufacturers". These restrictions are aimed at preventing authors from being abused by major exploiters and distributors of musical material: in view of their daily experience, collecting societies fear that authors could otherwise be compelled to assign their rights to the record industry majors.

In the *SABAM II* case, there was no reference made to the question of whether or not it was feasible to manage some of the rights assigned to

SABAM individually. The *ratio decidendi* in *SABAM II* concerned whether less restrictive measures could be foreseen in order to protect authors from the record industry majors. In fact, it is unclear to what extent, if any, technical progress is protecting authors from the demands of the record industry.

The Commission also submits that individual management of rights reinforces the authors' moral rights, providing them with more control over the utilization of their works. However, it is not true that the assignment of rights to a collecting society lessens the degree of control of an author over the utilization of his or her works. Firstly, the assignment of rights to a collecting society does not necessarily result in the author losing control of his or her works. The author can still require the collecting society to make the licences of his or her works subject to certain conditions. Secondly, collecting societies are much better placed to monitor respect for the author's rights than individuals. Collecting societies have more resources and are more experienced and more effective. Each author profits from the whole enforcement mechanism that collecting societies have for the protection of their repertoires.

Moreover, the Commission does not explain why technical progress or the reinforcement of an author's moral rights diminish the risk to the solidarity principle that arises from the creaming-off of the most valuable rights.

The third argument of the Commission is, at first glance, the most appealing: only a few collecting societies impose limits on the individual management of rights. In this regard, the Commission also takes account of the fact that, in cases where collecting societies do authorize the individual management of rights, few authors have chosen this option. The Commission draws two conclusions from this. Firstly, if there is a substantial risk of authors being deprived of their rights by record industry majors, one would expect a higher number of applications for individual management in the countries where such an option exists. Secondly, the Commission considers that the fact that only a few authors have chosen this option also demonstrates that there is no real risk of creaming-off.

However, the mere fact that only a few collecting societies impose limits on the individual management of rights should not be conclusive. The circumstances and practices prevailing in the music industry vary from one country to another. Furthermore, the fact that few authors have chosen to manage their rights individually, where it is possible to do so, could be explained in many different ways and does not necessarily constitute proof of the absence of unreasonable demands on the part of the record industry. The current figures for authors applying for individual management of rights do not represent a true indication of the risk posed by creaming-off. The appraisal of the Commission is only valid in a short-term context. The number of authors who want to manage their rights individually could be low at the beginning, but this could well be an ever-increasing figure, especially if we consider that the internet is an area that is particularly suitable for the individual management of rights.

Yet it is true that the fact that several other collecting societies allow the individual management of rights could be a strong indication that SACEM's policy did not fulfil the proportionality test. As a matter of fact, it is very hard for a collecting society to prove that such measures are indispensable if many other collecting societies do not impose them. In practice, this puts the burden of the proof on the collecting society in question, who must explain why individual management is feasible in some Member States but not in the Member State concerned.

2. Rejecting applications for the individual management of rights after *Daft Punk*

The Commission's Decision in *Daft Punk* does not mean that any application for the individual management of rights must be automatically accepted. Collecting societies can still refuse such applications if:

- the application is not motivated;[48]
- in view of the "quantitative" evolution of the individual management of rights; or
- in view of the technical problems that could arise in connection with the individual management of rights.

It is worth noting that the "quantitative" evolution of the individual management of rights seems to be a concept that is extremely close to the arguments put forward by SACEM with regard to the financial risks that the individual management of rights entails.

The problem with the "quantitative" evolution exception lies in determining what number of authors wishing to manage their rights individually is necessary before it becomes impossible to accept more applications for individual management. There are no clear parameters available in this regard. However, it is also true that this is a difficult question to be answered at the outset.

Furthermore, if the "quantitative" evolution of the individual management of rights makes it necessary to refuse an application, not only that application should be refused but, as of such date, all new applications should also be refused. In that case, the refusal will be the rule rather than the exception.

The "quantitative evolution" exception also seems to suggest that the individual management of rights is only feasible if the number of authors who

[48] This requirement is provided for in Article 34 of SACEM's statutes and was explicitly accepted by the Commission in *Daft Punk*.

choose this option remains low. If this holds true, the argument put forward by SACEM to the effect that the individual management of rights must be limited because it creates a risk for the whole functioning of collecting societies was not completely irrelevant.

Extreme cases can also be foreseen. Some collecting societies, as it is the case for SGAE in Spain, have both publishers and authors amongst their members. It only needs one or two of the major publishers to apply for individual management of rights to mean that the "quantitative" volume of rights withdrawn from the collective management is such that it could be justifiable to refuse the application.

The "technical problems" exception also merits some attention. The Commission provided some examples of what 'technical problems' could be: they include the identification and categorization of internet-related rights, identification of the forms of utilization of works according to categories of rights, identification of the rights that are still managed by the collecting society and the impact on the reciprocal representation agreements concluded with other collecting societies.

We think that it is legitimate for a collecting society to refuse applications for individual management of rights on grounds of technical problems, but the implementation of this possibility brings more legal uncertainty to collecting societies as well as unforeseen side effects.

The above list of technical problems is not exhaustive. Thus, other technical problems may arise that justify the refusal of an application for individual management of rights. It goes without saying that, in such circumstances, the author could think that such a refusal is in breach of Article 82 EC.

Some of the examples provided by the Commission may appear to be a legitimate ground for refusing an application in the first years after the individual management of rights is implemented, but they could hardly be considered as a valid excuse after some years of experience. In contrast, other technical problems will only appear if the individual management of rights becomes a mass choice amongst the members of the association.

In short, it is unclear to what extent a collecting society's own technical problems could be a legitimate ground for imposing the collective management of rights on its members.

3. *Daft Punk* and the level of fees

The *Daft Punk* Decision makes no reference to the fees charged to members who do not assign all their rights to SACEM pursuant to the Daft Punk clause.

However, when SACEM amended its statutes, it also modified the rules relating to the fees charged to its members. This amendment provided that

SACEM could decide, on a case-by-case basis, to charge different fees to members who do not assign all of their rights to SACEM.[49]

This amendment seems to us to be objectively justified and demonstrates that there are less restrictive ways of avoiding the financial risks of creaming-off. If a collecting society's member does not assign all his or her rights to SACEM, this could create an additional administrative cost for the collecting society, as the latter must identify which users must pay and which users need not pay for the use of the member's works. The collecting society must also bear the additional accounting burden and face the management of a heterogeneous repertoire. Furthermore, the collecting society will face substantial difficulties in 'explaining' to users why the licence only covers a limited number of rights for certain works.

This supplementary fee seems legitimate in as much as it bears a reasonable relation to the additional cost that the individual management of rights creates. The fee enables the collecting society to cover the increase in its operating expenses without creating an additional economic burden for members who assign all of their rights to it. The fee therefore also eliminates a significant part of the risks for the collective management of rights linked to the creaming-off of rights.

Nevertheless, the supplementary fee could raise some new problems for collecting societies. The fee makes it easy for any unhappy author to allege that he is being 'penalised' for not assigning all of his rights to the collecting society. This author could simply refer to the extensive case law condemning loyalty rebates as almost a *per se* violation of Article 82 EC, and in particular could accuse the collecting society of applying its fees in a manner that enhances the fidelity of its members and discourages the individual management of certain rights. Such an interpretation cannot be ruled out, but in our view it is not in the spirit of the supplementary fee. Nor should it be deemed to be a discriminatory measure: an author who assigns all his or her rights to a collecting society is not in the same situation as an author who only assigns some of them (thus creating additional operating expenses for the collecting society and breaking the balance between the different fees).

However, as a matter of proof, it will not be easy for the collecting society to demonstrate that the supplementary fee bears a reasonable relation to the additional costs incurred by it. The additional operating costs relating to the individual management of rights could fluctuate over time. The additional costs will depend on the number of authors who have chosen this possibility and the experience gained over time by the collecting society in assessing the amount of the additional operational costs.

[49] Article 34 of SACEM's statutes states: "Toutefois, les charges de gestion spéciales pouvant résulter de la limitation des apports donneront lieu, le cas échéant, par décision du Conseil d'administration à la déduction supplémentaire pour frais correspondante".

One can also foresee another issue. It is clear that operational costs may vary substantially from one right to another. The actual fees policies, however, reflect a balance based on the solidarity principle. If a substantial number of members of a collecting society were to withdraw those rights that entail less operational costs, that balance would disappear. In such a case, the managing fees charged by the collecting society should rise substantially for the most complicated rights.

In short, the individual management of rights could legitimately entail substantial increases in the fees charged to those who individually manage their rights. However, the implementation of additional fees will certainly bring more legal uncertainty for collecting societies and is a potential source of conflict.

4. *Daft Punk* and the Spanish case

SGAE , the Spanish collecting society, numbers both authors and publishers amongst its members. In 2002, five major publishers (UIP, BMG, Sony, EMI and Peermusic, hereinafter, the "majors") brought a complaint against SGAE before the Spanish Competition Service.[50]

These publishers claimed that SGAE had prevented them from individually managing their rights. SGAE contended that its statutes entitled its members to ask for a derogation of that general rule. Some time after the complaint was lodged, the Commission published its decision in the *Daft Punk* case. In 2003, SGAE decided to amend its statutes including the clause agreed by the Commission and SACEM in that case.

In view of the amendment of SGAE's statutes, the Spanish Competition Service decided to close the proceedings against SGAE in 2004. The five majors filed an appeal against this decision before the Spanish Competition Court,[51] which was dismissed in a landmark ruling in December 2004.[52]

We would like to point out some aspects of the ruling of the Spanish Competition Court.

The practices of SGAE have been closely scrutinized by the Spanish competition authorities since the early Eighties. None of the previous decisions involving SGAE took account, implicitly or explicitly, of the legitimate aims pursued by collecting societies. Furthermore, in most of those decisions, the competition authorities considered that collecting societies usually enjoyed a *de facto* monopoly and thus adopted a very tough position towards SGAE.

[50] That is, the *Servicio de Defensa de la Competencia.*

[51] *Ibid.*

[52] Decision of the Spanish Competition Court of 16 December 2004 in proceeding no. R 609/04, *Ediciones Musicales.*

However, in its 2004 decision, the Spanish Competition Court took due account for the first time of the aims pursued by SGAE and struck a careful balance between the interests at stake. The Spanish Competition Court also acknowledged that SGAE was in a "special legal position": under Spanish law the collective management of rights fulfils a social task which must be carried out by non-profit associations. Following the ECJ in *SABAM II*, the Spanish Competition Court also stated that collecting societies may impose some restrictions on their members with a view to ensuring an effective collective management of rights, provided that such restrictions are proportional to the aims pursued.

What makes this case interesting is that, in *Daft Punk,* the complainants were authors, while in the Spanish case the complainants were the five major publishers. Thus, in the Spanish case it was necessary to protect the rights of some of SGAE's members (the authors) against the complainants themselves, who were also members of SGAE. It was necessary to ensure a balance not only between the interests of the members of SGAE and the need for an effective management of their rights by a collecting society, but also between the interests of the members themselves.

This brings us to some important issues which were not dealt with by the Spanish Competition Court: whether or not the reasoning of the Commission in *Daft Punk* was fully applicable to publishers.

As we have said before, the Commission considered that one of the reasons to open the door to the individual management of rights was that it reinforces the moral rights of the author. Obviously, this reason cannot be applied to publishers.

In *Daft Punk*, the Commission also insisted on the fact that only a few collecting societies impose limits of this kind, which proved that there was no risk of a creaming-off of rights. This argument is not easily transposable to the individual management of major publishers' rights. Each major publisher holds the rights of a huge number of works. Thus, if a publisher withdraws some of its rights, the risks of creaming-off and the prejudice for the financial equilibrium of a collecting society is much higher than it is in the case of authors.

Moreover, as we mentioned before, it cannot be ruled out that it only takes one or two of the major publishers to apply for individual management of rights before the 'quantitative' volume of rights withdrawn from collective management could be such that the collecting society might find itself justified in refusing the application in view of the 'quantitative' evolution of the individual management of rights.

This case provides another excellent example of the importance of striking a proper balance of the interests of authors and the record industry—a '*rule of reason'* approach—and of avoiding a *per se* approach. Moreover, the case also shows that such a balance of interests must be the outcome of a thorough examination of the interests at stake, of the structure of the market and of competition conditions prevailing at the time the competition authority adopts each decision.

F. Conclusion

The compatibility of collecting societies' practices with EC competition law has been examined several times by the national and European authorities, and one can expect that this scrutiny will continue in the future.

While the real limits arising from Article 82 EC are unclear for any dominant undertaking, this is even more so for collecting societies. The case law on collecting societies is still scarce and the principles laid down in said case law are vague. Furthermore, the general principles of competition law should be applied to collecting societies taking into account their specific nature and role and ensuring a proper balance of all the interests at stake.

This lack of guidance certainly creates a high degree of legal uncertainty for collecting societies, which results in ambiguous practices. If collecting societies must operate against a background of ambiguity in terms of what they can and cannot do under Article 82 EC, one can expect them to remain "the usual suspects" for a long time to come.

VIII

Thomas Vinje and *Ossi Niiranen**

The Application of Competition Law to Collecting Societies in a Borderless Digital Environment

A. Introduction

The rapid growth of the Internet has resulted in dramatic changes in the way copyright works are disseminated and consumed, as well as in demands for changes in the ways in which collecting societies deal with each other, with their members, and with licensees. The application of European competition law to the behaviour of collecting societies, which was developed some years ago in the context of an analogue, non-networked environment, has yet to be adapted to the realities of the new digital, networked environment.

Collecting societies have presented themselves as providing part of the solution to the challenges presented by the new digital, networked environment, and clearly they can and should play an important role in the development of the new digital ecosystem. But this means that they must change, and that they should adjust their behaviour to conform to an application of competition law that reflects the new realities.

In the past, both the European Court of Justice and the Commission have accepted that the peculiar circumstances then applicable to the operation of collecting societies, and the implications of these circumstances for the ability of the collecting societies to play the important role they have played in society, required a rather special and lenient application of competition law to the conduct of collecting societies. While the light-handed application of competition law to collecting societies might remain appropriate in the context of the traditional off-line environment, the revolutionary changes in technology seen in recent years require the Commission and the Courts to rethink the appropriateness of the special rules to collecting societies and in particular to consider whether the old, rather lenient approach in applying competition law to collecting societies remains justified in the new digital, networked environment.

While change can appear frightening to those accustomed to a comfortable status quo, legislative measures aimed at facilitating competition, coupled with more rigorous application of competition law to collecting societies in

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the digital environment, can benefit not only collecting societies' members (among whom are the actual authors and performers so especially vital to cultural development), but also those who facilitate the dissemination of creative works and performances and indeed also collecting societies themselves.[1]

This paper will outline some of the main concerns in relation to the collecting societies and their behaviour with respect to their own members, and to potential licensees—with a particular focus on the latter.

B. Overview of Collecting Societies and Their Operation

Collecting societies play a vital role in society by, *inter alia*, bringing owners of copyright and neighbouring rights in music (including authors, performers, producers and their potential assignees or exclusive licensees such as record companies) together with those who disseminate music, such as for example analogue radio stations, restaurants and discothèques in the traditional off-line environment and, for example, those who disseminate music via Internet streaming and downloading in the new digital networked environment.

1. The regulatory framework

Collecting societies draw their competence from different sources, depending on the type of collecting society and the Member State in which it operates. In some countries competence is based on a statute, whereas in others such as Germany, France, Spain and the UK, the competence of the collecting societies is to a large extent based on private law, mostly on the licences and assignments the collecting societies enter into with their members.

Collecting societies' operations are based on their internal statutes and bylaws, which in most cases determine both the competence of the collecting society and the relationship between the society and its members. The internal rules vary from one collecting society to another, and it is thus not possible to provide a comprehensive detailed description of the applicable rules.

[1] The discussion below focuses on music rights, as these are the rights that have been at the forefront of the issues regarding the application of competition law to collecting societies in the digital networked environment. However, the same basic issues arise in the context of audiovisual works.

2. The rights administered by the collecting societies

In order better to understand the role of the collecting societies, and the competition law concerns arising from their practices, it is important to see which rights are involved and which licences are required in most cross-border use licences, as many of the concerns discussed below arise in that context. As noted above, we will focus on the rights involved in dissemination of music.

In deciding on the licences needed, one must distinguish between two types of protected subject matter: (a) the underlying *musical work* and (b) the *sound recording*, and two categories of right holders: (a) the *author* (composer, songwriter, arranger and the like)*,* and (b) the *performer* and *producer*.

The copyrights of authors include the *right of reproduction*, or right to control reproductions of performances embodying protected musical works by mechanical, electro-acoustic or electronic means ("mechanical rights"), and the *right of communication to the public/making available*, which in many Member States is part of a broader *performance* right and includes the right to authorize transmissions or other on-line deliveries of the work (hereinafter cumulatively referred to as "performance rights").

The performing musician and producer hold neighbouring economic rights in the sound recording that are analogous to the rights of the author in the musical work. Thus, the performer and producer hold analogous rights of reproduction and communication/making available.

The most common ways of distributing music over the Internet (apart from the on-line sale of CDs) are downloading and streaming. Downloads of digital music imply (1) that the musical work as composed by the author and the sound recording as performed by the performer(s) and recorded by the producer, is *made available* to users over the Internet, and (2) that a copy of that musical work and sound recording is stored (*i.e.*, *reproduced*) *both* on the music provider's server *and* on the end-user's storage device. Collecting societies (and perhaps others) argue that music downloads require a clearance of: (a) the mechanical *and* performance rights of the author in the musical work, and (b) the mechanical *and* performance rights of the performer and producer in the sound recording. However, the scope of these rights and their relevance to the different forms of on-line music provision vary somewhat from Member State to Member State and may still be subject to unsettled law in many Member States.

Streaming involves the making available (interactively/on demand or non-interactively/by broadcasting) of music, and requires at least a *performance* licence from the author's performing society and from the performer(s)' and producer(s) societies or (more likely) the record company.

Actual authors and performers seldom retain their rights in any musical work or sound recording. Professional composers and songwriters generally transfer their economic rights to a *music publisher*, who in turn usually entrusts the management of these rights to a collecting society managing publishing rights.

Usually, one single collecting society does not manage rights relating to all kinds of copyright protected works. Instead, different societies manage different categories of rights, and thus, unless the collecting societies responsible for the different types of rights offer joint licences, the potential licensee might have to deal with different societies.

3. The roles of collecting societies

The main role of collecting societies is to administer and enforce the rights of their members on their behalf. Thus, among the main activities of collecting societies are the following:

a. authorising the use of works by providing non-exclusive licences to interested parties;
b. collecting royalties from licensees;
c. distributing the royalties to members;
d. enforcing members' rights.

The collective rights management system is potentially advantageous as it enables right holders to exploit their rights among a great number of users without the burden of individually administering such exploitation. Such a system can also be beneficial to potential licensees/users, as they can obtain licences for all the uses they need from a single source, without having to individually contract with all the relevant right holders (of which there can be many, even with respect to an individual piece of music), thus lowering the transaction costs involved in a typical music licensing deal.

C. Competition Law Concerns Arising from the Activities of Collecting Societies

Collecting societies administer the rights of their members by authorising use, collecting royalty (and levy) revenues, distributing the royalties/levies and enforcing the rights in courts if royalties/levies are not paid. Because of the special circumstances surrounding their operation, including the fact that enforcing their members' rights traditionally has required territorially-focused monitoring and enforcement and that it would arguably be economically inefficient for more than one collecting society to administer the relevant rights per territory,[2] as well as the fact that their main functions are all concerned with dealing with copyright and related rights, the collecting societies have claimed that their activities are not subject to competition law in the same way the activities of normal companies are.

Community law has, however, consistently considered collecting societies as being undertakings subject to competition laws.[3] While the European Courts have recognized the importance of upholding intellectual property rights because of their role in facilitating innovation and creativity, they have not deemed the behaviour of collecting societies to fall outside the ambit of competition law. They have, however, accepted some of the collecting societies' arguments about the circumstances in which they operate requiring a lenient application of the competition law to behaviour that otherwise would be deemed infringing. The big question today is whether the circumstances justifying a soft application of competition law to collecting societies in the traditional off-line context continue to exist in the new digital networked world.

In the Commission's view, competition law has concerned itself with three distinct categories of anticompetitive behaviour in which collecting societies have engaged, namely (1) restrictive agreements amongst themselves, (2) behaviour as regards their members (the right holders) and (3) behaviour as regards licensees.[4] Even though the categories of behaviour are in principle separate, it is important to realize that they are in practice to a large extent interconnected and affect each other. In particular, horizontal co-operation can allow collecting societies to restrict competition both *vis-à-vis* right holders and *vis-à-vis* licensees.

A preliminary point that needs to be addressed is the market power of the collecting societies in the relevant markets.

1. Monopolistic position of the collecting societies

In principle, only one collecting society manages any particular type of right on behalf of a certain kind of right holder in a particular territory. Moreover, there is usually only one collecting society to which potential licensees can turn for the licence necessary for the particular type of exploitation they envisage for a particular territory. Thus, each collecting society typically occupies a near monopoly position *vis-à-vis* its potential members and licensees in the market for rights management in its territory.

[2] Note, however, that in the United States different collecting societies (and in particular ASCAP and BMI) compete in the same territory both for members and for licensees.

[3] See, for example, Case 127-73 *Belgische Radio en Televisie v. SV SABAM and NV Fonior* [1974] ECR-313.

[4] Case Comp/C2/38.104 *IFPI "Simulcasting"* of 8 October 2002 (2003/300/EC), OJ L 107 [2003], at recital 13.

The Commission and the European Court of Justice have consistently held that collecting societies each possess a dominant, if not monopolistic, position in the rights licensing market in their national territory. The rationale behind the holding is clear. The *de facto* monopoly is a result of the structure of the licensing markets outlined above. The structure itself was created by the collecting societies, which have divided the market for rights management services territorially amongst themselves by concluding with other collecting societies bilateral reciprocal agreements, giving each other the right to grant in their territories licences to the repertoire of the other. As discussed in more detail below, in order to preserve their own national monopolies, collecting societies have ensured that these agreements include several anti-competitive provisions aimed at preventing competition between the societies party to the agreement from emerging.

Thus, as discussed above, the European collecting societies together have a firm grip on the music market. Through their membership conditions, their practices and bilateral agreements, they have basically eliminated competition between each other. This has benefited only the collecting societies themselves, to the detriment of the on-line music market, including on-line providers of music as well as the creators and performers themselves.

2 Relationship between collecting societies and their members

Among the most harmful of collecting societies practices in the digital environment is the imposition by the societies of strict exclusivity requirements on their members. Currently, a member of a collecting society is effectively prevented from managing on-line usage of his repertoire through several collecting societies, from self-managing his on-line rights,[5] and from delegating on-line rights management to any entity other than a collecting society. This also means that on-line music providers have no source for online music rights other than collecting societies, which reduces significantly the opportunity for on-line music providers to obtain competitive and innovative licence terms.

In the 1970s, the European Commission handed down several decisions requiring certain collecting societies to modify the rules governing their relationships with their members.[6] These decisions established the basic

[5] But see Commission Decision of 12 August 2002, *Case C2/37.219 Banghalter & Homem Christo / SACEM ("Daft Punk")*, available at http://europa.eu.int/comm/competition/antitrust/cases/decisions/37219/fr.pdf, which indicates that in some circumstances individual management might be possible.

[6] Commission Decision 82/204/EEC of 4 December 1981 (*GEMA III*), OJ L 94 [1982]; Commission Decision 72/268/EEC of 6 July 1972 (*GEMA II*), OJ L 166 [1972]; Commission Decision 71/375/EEC of 9 November 1971 OJ L 254 [1971]; Commission Decision 71/224/EEC of 2 June 1971 (*GEMA I*) OJ L 134 [1971]. See also Case 127/73, *BRT II* [1974] ECR 316.

principle that collecting societies enjoy a dominant position *vis-à-vis* their members. Article 82 EC prohibits as incompatible with the common market any abuse by one or more undertakings of a dominant position within the common market or a substantial part thereof in so far as it may affect trade between Member States.

Such an abuse was found in the Commission's 1971 decision relating to the statutes of the German collecting society GEMA.[7] At the time, GEMA required as a condition of membership, *inter alia*, that its members grant to GEMA a blanket exclusive licence covering all the members' rights for all categories of their works throughout the entire world.

The Commission condemned this practice as an unjustified abuse of GEMA's dominant position. The *GEMA II* decision established that GEMA must allow a prospective or existing member either a) to assign to GEMA all works for all countries, and to withdraw his rights at any time, and for all *works* and all countries, but only with respect to seven categories of *use* defined in the decision and/or with respect to specific countries, or (b) to assign works to GEMA in whole or in part for *any* type of use (not necessarily those specified in the decision) or for specific countries, but allowing withdrawal of rights with respect to those works *only* at the close of every three-year term and with six months' prior notice. GEMA opted for the latter approach, and thus its members are allowed to withdraw their rights with respect to any type of use—but only at the end of every three-year term, only subject to six months' prior notice (*i.e.*, notice at the latest in June if the three year term ends on December 31). Most other European collecting societies have opted for the same option, if they allow the withdrawal of certain rights at all.

The *GEMA II* decision does not allow a member of a collecting society to withdraw his rights for any type of use at any time. Moreover, the Commission's decision did not prevent the collecting societies' practice of requiring *exclusivity* for those categories of rights that they continued to manage.

At the time, the *GEMA II* decision may have represented an appropriate balance between the enforcement of EC competition law and the effective exploitation of IP rights. However, the world has moved on since 1972, and the lawfulness of the conditions imposed on their members by collecting societies should be re-evaluated in light of the dramatic and fundamental changes wrought by on-line technology. The Commission should consider whether the membership conditions permitted in *GEMA II* should be allowed with respect to on-line rights. In particular:

- the three year withdrawal term is extremely long in the on-line context; allowing withdrawal of on-line rights only every three years and only with

[7] Commission Decision 71/224/EEC of 2 June 1971 (*GEMA I*), OJ L 134 [1971].

such long notice periods effectively prevents authors from withdrawing their rights at all;

- the collecting societies' practice of requiring exclusivity from its members is no longer justified with regard to on-line exploitation of rights.

According to the ECJ and the Commission, in assessing the lawfulness of collecting societies' practices, "*account must . . . be taken of the fact that* [a collecting society] *is an association whose object is to protect the rights and interests of its individual members*". In light of this, it is then necessary to *"examine whether the practices in dispute exceed the limit* ***absolutely necessary*** *for the attainment of this object, with due regard also to the interest which the individual author may have that his freedom to dispose of his work is not limited more than need be"* (emphasis added).[8]

Because many of the on-line music providers are at least as well if not better able to distribute royalties to authors and performers quickly and accurately, as well as being better placed to police rights on-line, and because in many respects collective management may be less efficient and less beneficial to right holders than direct management by artists (alone, in parallel with a collecting society or through an on-line music provider it has licensed), it cannot be argued that it is *absolutely necessary* for collecting societies to manage on-line rights *exclusively*. Among other things, the notion that rights can only be effectively administered, monitored and enforced on a national territorial basis is without any foundation in the on-line context. For example, owners of rights in computer software and in sound recordings police their rights across large geographic regions from single locations, and see no need for national on-line policing entities.[9]

The *Daft Punk* case seems to indicate that the Commission is taking steps in the right direction in this respect, although the Commission eventually rejected the complaint. The case dealt with a complaint lodged by the techno-music group Daft Punk, which claimed that the French Collecting Society SACEM was in breach of Article 82 EC by refusing to allow Daft Punk to retain some of their rights for individual management. Briefly put, the Commission was of the opinion that, due to technological advances, prohibitions on individual management of rights were not "absolutely necessary",[10] and hence infringed competition laws. However, the Commission did not

[8] Case 127/73, *BRT II,* judgment of 27 March 1974, *supra* n. 3, at paragraphs 9 and 11. See also Commission Decision 82/204/EEC of 21 December 1981, at paragraph 36.

[9] In certain cases collecting societies have also abused their dominance by discriminating between potential members, usually by treating national right holders differently from non-nationals. In *GEMA I,* complaints had been made of the internal rules of GEMA, which provided that "foreign nationals may become ordinary or extraordinary members only if they have their fiscal domicile in Germany", but German nationals were not subjected to the same requirement. The Commission investigated the matter and found that the rule was discriminatory and infringed Article 82 EC.

[10] *Supra* n. 8.

pursue the matter further because SACEM modified its membership rules, making individual management of specific rights possible as a derogation from the general rule of collective management of all rights. Therefore, it is difficult to say what the precedent value of *Daft Punk* is—further clarification is still needed.

3. Relationship between collecting societies and licensees

Apart from the damage to licensees caused by anticompetitive agreements between collecting societies (discussed below), competition law concerns can also arise from more direct abusive behaviour *vis-à-vis* the licensees. Because of their *de facto* monopoly, collecting societies are in a position to abuse their dominant position to the disadvantage of licensees of rights, and the Commission has also noted this. As is well known, there is no exhaustive list of abuses that a dominant undertaking can commit, and thus it is not possible to enumerate all types of abusive behaviour in which collecting societies can potentially engage.

However, it is possible to highlight the most prominent types of abuses. In *Lucazeau*,[11] a case concerning royalties to be paid by discotheque owners to the collecting society for performance rights, the ECJ condemned excessive tariffs by collecting societies. It held that when a collecting society

> "imposes scales of fees for its services which are appreciably higher than those charged in other Member States and where a comparison of fee levels has been done on a consistent basis, that difference must be regarded as indicative of an abuse of a dominant position. In such a case it is for the undertaking in question to justify the difference by reference to objective dissimilarities between the situation in the Member State concerned and the situation prevailing in all the other member states."[12]

The decision thus addresses a major behavioural issue dealing with the relationship of collecting societies and users. Collecting societies, when dealing with their users, cannot exercise their exclusive intellectual property rights to extort excessive royalties from their users. If there is evidence of such behaviour, it is for the collecting society to justify that its tariffs are based on objective and sound criteria.

3.1. The impact of co-operation between collecting societies

A major concern from the perspective of both competition law and society has been the refusal of collecting societies to deal adequately with the needs

[11] Joined Cases 110/88, 241/88 and 242/88 *Francois Lucazeau and Others v. SACEM and Others* [1989] ECR 2811.

[12] *Lucazeau*, paragraph 25.

of those who wish to obtain cross-border licences for the purposes of their Internet business. This is unfortunate, as the benefits of on-line music dissemination are clear. Authors and other music right holders can employ the Internet to reach broader audiences more easily, directly and cost-effectively than they can through traditional 'off-line' methods of distribution. They can also use the Internet to build new and closer relationships with their listeners. The Internet allows both established providers of on-line music and new market entrants to deliver novel competitive music offerings that are better tailored to the users' individual music desires than those available through traditional music distribution channels. On-line music delivery also brings significant cost reductions and other economic efficiencies, and significantly decreases geographical barriers to music distribution. The availability of more music at lower cost than would ever be possible within the constraints of traditional music dissemination channels also benefits consumers.

A legitimate and dynamic on-line music market can of course develop only if right holders are adequately compensated for the on-line exploitation of their works; otherwise, many will have no incentive to create new musical works and distribute them on-line.[13] The provision of musical works, whether by web casting or by streaming or downloading on demand, free of charge or against payment, should take place only if the music provider is authorized by the right holder(s) to do so and appropriately compensates the right holder for this use.

However, the current situation where on-line providers arguably need to obtain rights clearance for making music available on the Internet in all countries where the music is accessible (the country of destination principle), and where the national collecting societies operate on a national basis offering rights licensing only for their national territory—which effectively creates national monopolies for licensing of rights—hinders various forms of music distribution on-line. The failure of collecting societies to adapt to new technology and new opportunities for providing music on the Internet also results in constantly growing but unfulfilled consumer demand. To a large extent, this failure results from the fact that current practices rule out any possibility of competition between the different national collecting societies.

The collecting societies have attempted to address the demand for cross-border licences by a web of reciprocal agreements between themselves. Such agreements are considered necessary because the collecting societies are generally only competent to act within their national boundaries, and thus co-operation between collecting societies is needed to ensure that it is possible to obtain cross-border licences. However, co-operative agreements are prone to

[13] One cannot deny, of course, that many music-makers make music purely for the joy of doing so, and that many music-makers are happier to see wide dissemination of their music than they are to obtain remuneration for it. But one also cannot deny that many music-makers are dependent on their music for their livelihood and that remuneration for their musical creations and performances is vital to them.

misuse, and as explained below, active and rigorous competition law enforcement is needed to ensure that competition is not restricted.

3.2. *Controlling co-operation through competition law*

The conclusion of agreements between collecting societies such as those modelled on the basis of the Santiago Agreement could provide a significant step forward towards resolving the need for a single source for Europe-wide licences necessary for on-line music distribution.[14] However, as noted above, the reciprocal agreements advocated so far by the collecting societies have proved to be problematic from a competition law point of view due to the anticompetitive provisions they contain. Three specific examples of such agreements are analyzed below, namely: (a) the IFPI simulcasting agreement, (b) the Barcelona agreement, and (c) the Santiago agreement. The focus of the analysis will be on the Santiago agreement.

a. The IFPI simulcasting agreement

In November 2001, the International Federation of the Phonographic Industry ('IFPI') notified to the Commission a model reciprocal agreement between collecting societies dealing with *simulcasting* rights. The purpose behind the agreement was to provide for a one-stop shop for licensees wanting a multi-territorial licence for simulcasting.

The Commission refused to grant clearance to the agreement as originally notified, due to the fact that it contained, *inter alia*, a customer allocation clause which confined potential licensees to only one collecting society which they could negotiate with for a multi-territorial licence. Such a provision is clearly anticompetitive and constitutes a horizontal market sharing agreement prohibited by Article 81 EC Treaty. In the face of Commission opposition, IFPI revised the model agreement and made it possible for licensees to go to any collecting society in the EEA in order to obtain a licence covering multiple territories. The Commission considered the removal of the customer allocation clause to be sufficient and granted an exemption under Article 81(3) EC.

b. The Barcelona agreement

The *Bureau international des sociétés gérant les droits d'enregistrement et de reproduction méchanique* ('BIEM') notified the Barcelona agreement to the Commission in 2001. The agreement is designed to set out the conditions under which collecting societies can provide multi-territorial licences for

[14] Simulcasting was defined in the notification as "the simultaneous transmission by radio and TV stations via the Internet of sound recordings included in their broadcasts of radio and/or TV signals" [see recital 2 of the *IFPI Simulcasting* Decision].

on-line mechanical rights for *web casting* and on-demand streaming and downloading. Similarly to the Santiago agreement (see below), the agreement contains a customer allocation provision to the effect that a licensee can only obtain a licence from the collecting society located in the same country as the licensee. As noted above, such a provision is clearly anticompetitive, and the Commission considers that it infringes Article 81.[15]

c. The Santiago agreement

In April 2001, a group of collecting societies notified to the Commission the so-called Santiago agreement, which was designed for the purpose of allowing collecting societies to grant to parties interested in on-line music distribution licences to the music repertoires of all societies participating in the agreement. Through such agreements, a single collecting society may be able to offer licences for the on-line exploitation of the repertoire of multiple collecting societies. This form of 'one-stop shopping' could considerably simplify on-line music providers' licence acquisition and administration process and thus help pave the way for the development of a legitimate and efficient on-line music market and resulting choice and cost benefits for consumers of on-line music (and diminution of piracy).

The Santiago Agreement is a template bilateral agreement, to be concluded between performing rights societies, which will amend the existing bilateral agreements between these societies. With respect to the authors' rights to permit or prohibit public performances of their works, the Santiago Agreement applies to licensing of authors' *performance* rights and the distribution of resulting royalties for *on-line* music provision through downloading and streaming of music over the Internet with the exception of simulcasting.[16]

The Santiago Agreement seeks to address a dilemma posed by the current practices of collecting societies in the on-line context. On-line music providers are required, for each country in which their service is available, to obtain a performance right licence for the music they wish to distribute legally. Until arrangements like Santiago were put in place, it was not possible to obtain world-wide (or even Europe-wide) rights from a single source. This left on-line music providers in an untenable situation.

The Santiago Agreement therefore establishes one-stop shopping with respect to licences for public *performance rights* (right to publicly perform,

[15] Commission Staff Working Document, *Study on a Community Initiative on the Cross-Border Collecting Management of Copyright*, 7 July 2005, at p. 11, available at http://www.europa.eu.int/comm/internal_market/copyright/docs/management/study-collectivemgmt_en.pdf.

[16] The 'mechanical rights' collecting societies, which administer the authors' *reproduction* rights, and which usually are either closely linked with (or indeed one and the same organization as) the performance rights societies, are not involved in the Santiago Agreement in their capacity as managers of 'mechanical rights'. However, for the purposes of licensing such rights, a similar arrangement, the so-called Barcelona Agreement (discussed above), has been devised.

make publicly available and communicate to the public) of the *authors* of music (such as composers and songwriters), which is one of the key elements necessary for on-line music provision. In other words, the model Santiago Agreement has the potential of expanding the territorial reach of performance licences granted by collecting societies for on-line music to the entire world, such that only one licence is required from a single collecting society.

However, the way in which the Santiago Agreement has been formulated raises very serious concerns. It contains customer allocation and other provisions that infringe Article 81 and that cannot be subject to any exemption.

While the Santiago Agreement does allow an on-line music provider to obtain one world-wide licence from one collecting society for the repertoire of all the collecting societies with which the licensing society has concluded a Santiago Agreement, it prevents the provider from obtaining this licence from any collecting society other than the collecting society of the country where it is deemed to be established under the terms of the Santiago Agreement. For example, if the provider is established in Sweden, it can only obtain a Europe-wide license for a particular work from the Swedish collecting society and not from any other collecting society in Europe. The planned system would thus exclude competition between collecting societies for Europe-wide licences of the same repertoire.

In other words, the Santiago Agreement will eliminate any competition among collecting societies with respect to the terms and conditions of on-line music licensing. As a result of the Santiago Agreement, each national collecting society will have a *de facto* monopoly over on-line multi-national music licensees in its own country, and it need not fear competition with respect to the licence terms or administration fees applying to these customers from collecting societies in other countries. This lack of competition will not only delay the development of the on-line music market and of related technology, it will also have adverse consequences for authors (the collecting societies' members). The structure established by the Santiago Agreement clearly constitutes an unlawful market sharing arrangement between collecting societies in the form of customer allocation on the basis of a 'licensee country of establishment' criterion.[17]

For on-line music companies with subsidiaries established in different Member States, the customer allocation of the Santiago Agreement is particularly harmful: the Santiago Agreement provides that, for purposes of determining which collecting society has the authority to license, each company of a multinational group of companies is to be considered (and licensed) separately, regardless of the location from which the website's

[17] We note in this context that the Directive on the harmonization of certain aspects of copyright and related rights in the information society of 9 April 2001 provides in Recital 17 that "[i]t is necessary, especially in the light of the requirements arising out of the digital environment, to ensure that collecting societies achieve a higher level of rationalization and transparency with regard to compliance with competition rules."

content is hosted or distributed. Therefore, each subsidiary will be required to obtain a separate licence from a different country's collecting society. Such a provision strengthens the division between customer groups among collecting societies.

Furthermore, there is no justification for the anticompetitive provisions in the Santiago Agreement, and these provisions surely cannot qualify for an Article 81(3) EC exemption. The benefits of the 'one-stop shopping' approach embodied in the Santiago Agreement can be achieved without any customer allocation or other restrictive provisions. Indeed, these restrictive provisions meet none of the prongs of Article 81(3) EC. On the one hand, they neither (a) contribute to improving the production or distribution of goods or promote technical progress nor (b) provide any benefits to consumers. On the other hand, they (c) impose restrictions that are not indispensable to attaining the benefits of the Santiago Agreement and (d) allow collecting societies to eliminate virtually all competition amongst themselves for on-line music licences.

D. Addressing the Concerns Through Legislation

Apart from enforcing the competition laws, an important means of addressing the need to achieve competition in collective rights management is through legislation.

At least two potential solutions can be identified. First, the implementation of a country of origin principle into on-line licensing could correct the competition distortions in the relationship between the collecting societies and the licensees. The second solution, eliminating the current web of reciprocal agreements between the collecting societies and giving right holders the right to authorize the collecting society of their choice to manage their rights Europe-wide, has its emphasis on the relationship between the collecting societies and their members, *i.e.*, the right holders. However, as explained below, both solutions would also indirectly encourage competition between collecting societies overall.

1. Implementing a 'country of origin' principle

Even though national legislation on copyright protection was partly harmonized under Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society, no harmonized rules exist within the European Union governing clearance of copyrights and remuneration in the field of on-line services.

Today, the act of communication to the public of the copyright protected work in the field of on-line services, such as web casting, is considered to take place in every reception state. Therefore, as discussed above, providers of such services need to obtain a licence covering the copyrights involved in each country where the services are accessible via the Internet. Moreover, remuneration is due in all these countries in accordance with the tariffs laid down by the collecting society in each country.

This so-called 'country of destination' principle is inconsistent with the fundamental principles of the Internal Market, and indeed it prevents the development of an internal market in the rights required for on-line music services.

The development of cross-border transmission of on-line services within the EU in accordance with the principle of free movement of services, and thereby the creation of an internal market with undistorted competition, would be facilitated if the country of origin principle were applicable to these services. An amendment of the current practices would to a large extent eliminate the existing obstacles to such development. In order to apply the country of origin principle to interactive services, the current definition of where the act of communication to the public takes place should be redefined so that the act of communication should be considered to take place only in the country of emission.

If this approach were adopted, it would create competition between the different collecting societies, as they would have to compete for licensees. This would lead them to be more efficient in their activities, would reduce their high level of administrative costs, and would encourage them to engage in innovative forms of licensing that facilitate the development of new forms of on-line music dissemination. Not only consumers but also, and most importantly, right holders would benefit from the development of such new business models, as more music is made available and consumed by more people in Europe, and as legitimate on-line music distribution replaces unremunerated file sharing.

2. The Commission's on-line copyright licensing initiative

The Commission has also recognized the inadequacy of competition law in dealing with all the competition concerns arising from the operation of collecting societies. Recently, in July 2005, it published a working document detailing its views on a legislative approach towards solving some of the problems.[18] Although more of an idea paper than a detailed description of a

[18] Commission Staff Working Document, *Study on a Community Initiative on the Cross-Border Collective Management of Copyright*, 7 July 2005, text available at http://www.europa.eu.int/comm/internal_market/copyright/docs/management/study-collectivemgmt_en.pdf.

legislative solution to a pressing problem, the paper offers an interesting analysis of three approaches the EU could adopt in order to attempt to improve competition in the market for rights management services.

The first approach considered by the Commission is to do nothing and let market forces develop a solution to the current competition concerns described above. However, as demonstrated by the current market situation, it cannot be expected that market forces will solve the problems. The current requirement for a licensee to negotiate a separate licence agreement for each territory is costly both in terms of time and resources. Collecting societies have not been able to come up with an acceptable solution that would offer one-stop shopping on competitive terms, as well illustrated by the examples of the Santiago and Barcelona agreements.

The second option envisages the elimination of anticompetitive provisions in the reciprocal agreements between the collecting societies. Such an approach would clearly be more advisable than the first option, as it attempts to address some of the reasons why the current system does not work. It is 'a licensee's option' in the sense that it would have a direct and immediate pro-competitive impact on the relationship between the licensees and the collecting societies. A licensee could choose whichever collecting society offered the most attractive deal, and the collecting societies' revenue would thus be dependent on offering competitive arrangements. The Commission unfortunately and unwisely rejects this approach because it does not address what the Commission considers to be the main issue, namely the lack of competition between collecting societies for right holders. However, it is not clear whether this discarded approach would solve the real problem (the lack of competition on licence terms, including rates).

The third solution, preferred by the Commission, seems to be aimed at abolishing the web of reciprocal agreements between collecting societies that currently form the framework for multi-territorial licences by implementing a cross-border rights management system—initially only for music. The system would allow *right holders* (as opposed to licensees) to choose a collecting society outside their national territory for the EU-wide licensing of their rights. Thus, instead of relying on reciprocal agreements between collecting societies, the society chosen by the right holder would have a contractual mandate whereby the collecting society would represent the right holder across Europe. This, according to the study, would create a competitive environment in which collecting societies compete for right holders in cross-border management of copyright. Unlike a scheme that would allow licensees to go to any collecting society they wish to obtain a licence for the rights they require, the Commission prefers this 'right-holders option',[19] as it enables competition on the basis of not only price, but also on work repertoire. Currently, collecting societies offer, through their reciprocal agreements with

[19] Commission Staff Working Document at page 40.

the other collecting societies, an identical repertoire. However, the approach proposed by the Commission would leave it to the collecting societies to build up their own repertoire by competing for right holders. Moreover, increased competition would increase the royalties distributed to right holders, as collecting societies would compete against each other on the basis of, *inter alia*, the amount of royalties they distribute to their members. The system would thus significantly increase the revenue potential of right holders.

An important element of this system would be the option of right holders to withdraw their rights from the sphere of a collective management system they had previously used. Absent such an option there would be a danger that right holders would be locked in to a specific society, unable to realize the benefits of competition between the societies. However, the study also recognizes that right holders should not be able to withdraw their rights at will, as this would make it very difficult for collecting societies to plan their business operations on a viable basis. Therefore the paper proposes that right holders should be given the option to withdraw their rights, but only after the expiry of a reasonable notice period.

The Commission sees its proposed solution as a tool that is mainly aimed at addressing the competition law concerns arising from the relationship between the collecting societies and their members. However, it also believes that opening up competition would lead to efficiencies benefiting licensees as well.[20]

As the details of the Commission's plans are still sketchy, it is difficult to analyze the potential impact they might have. However, we would like to highlight the main concern we have with the proposal. According to the Commission, it expects only a few, albeit large, collecting societies to remain after the proposal is implemented. However, the remaining societies would not be subject to any real competition amongst themselves on licence terms.

Because it is still not clear how the Commission is planning to implement its proposal, it is too early to dismiss the initiative. However, in our view it would be advisable for the Commission to note the significant risks inherent in its current proposal and attempt to devise a solution that would take into account the need to ensure that collecting societies are obliged to compete not only for right holders but also for licensees.

E. Conclusion

Collecting societies have an important role to play in rights management, both in the traditional off-line and the new digital networked environments.

[20] *Ibid.*, at page 36.

However, the lack of competition between collecting societies has created a situation where the ideal view of collecting societies does not often equate to reality. Collecting societies have often abused their market power to the detriment of both their own members and licensees and have thus hampered the development of new markets.

Collective management should embrace new technologies and adapt to the new opportunities of music on the Internet. If collecting societies were to do so, and to accept the legitimacy of competition with respect to the collective management of on-line music rights, they would no longer hinder the development of the on-line music market and would ultimately enable more people to obtain legal music more cheaply and easily on-line. Competition would encourage collecting societies to be more efficient as organizations and to lower their administrative costs, and to explore innovative ways of licensing music rights and disseminating music. Moreover, the overall effect would be a net increase in creators' and performers' incomes, as more licences would be granted to more on-line music providers and new and innovative music markets would be developed (instead of free, peer-to-peer file sharing systems that provide no remuneration whatsoever to creators and performers).

In addition to making collecting societies subject to competition through a system of Europe-wide licences obtainable from any collecting society, and not just the collecting society where the potential licensee is established, as required by the template Santiago Agreement, membership conditions of collecting societies should be made more flexible for collecting societies' members so that they can more easily withdraw from the management of the collecting society certain types of rights, certain forms of exploitation or certain works. This would allow artists to self-manage some forms of exploitation where collective management is not appropriate for their needs—as may often be the case in the on-line context, where digital rights management systems facilitate direct management of rights or where digital music companies can better serve the artists' interests. It would also give authors an effective bargaining tool to ensure that collecting societies properly manage their rights.

Finally, one reason for the reluctance of collecting societies to change current practices might be that many of them are non-transparent, bureaucratic organizations influenced by their status as quasi-governmental entities. Transparency would be enhanced if collecting societies were subject to comprehensive, intelligible and detailed disclosure and reporting requirements. For example, the collecting societies could be made subject to the accounting principles applicable to public undertakings. One key principle is that the accounts "should show the distinction between different activities, the cost and revenues associated with each activity and the methods of cost and revenue assignment and allocation".[21] While supervision by a governmental body of collecting societies is vital to safeguard the interests of artists, such supervision should, unlike the situation today, be truly independent.

[21] *Commission Directive 2000/52/EC of 26 July 2000 amending Directive 80/723/EEC on the transparency of financial relations between Member States and public undertakings*, OJ L 193 [2000].

SESSION THREE

SELECTED PROBLEM AREAS (CONTINUED)
1

PANEL DISCUSSION

PARTICIPANTS:

Alden Abbott
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Claus-Dieter Ehlermann
Deborah Platt Majoras
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Hanns Ullrich
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Ian Forrester
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James Venit
Jochen Burrichter
John Fingleton
Josef Drexl
Mario Siragusa
Patrick Rey
Peter Plompen
Rochelle Dreyfuss
Simon Bishop
Thomas Vinje

Session III: Selected Problem Areas (Continued)

Panel V: Intellectual Property and Merger Control

► Hanns Ullrich—The treatment of IP rights in the context of merger control is a subject very often not covered in debates on the interface between IP and competition law. I thought of changing a bit the order of the interventions: we shall start from the US approach, then listen about the EU perspective, the situation in Germany, and conclude with the economics perspective.

► Deborah Platt Majoras—In the US, we review mergers characterized by IP in the same way and using the same kind of analysis as for mergers characterized by physical assets. The US standard is well known: we seek to determine whether the merger is likely to substantially lessen competition or create a monopoly. Essentially, we seek to determine if the merger will enable the resulting firm to increase prices or reduce output. Both the FTC and the Antitrust Division of the Department of Justice apply the *1992 Horizontal Merger Guidelines*.[1]

Some commentators have suggested that the US antitrust laws, including the Clayton Act, are too static to be applied in industries that are characterized by rapid innovation. I disagree with this view: we no longer review mergers according to strong structural presumptions, but instead, we conduct a highly fact-intensive merger review. The analysis is flexible enough to be adapted to all types of markets, including those involving IP. In reviewing mergers, we do not presume that patents confer market power—as is made clear in the 1995 *Antitrust Guidelines for the Licensing of Intellectual Property*[2] and reconfirmed by the FTC in the 2003 *Report on the interface between IP law and antitrust*[3] that I mentioned yesterday. Patents, of course, confer a right to exclude, but we understand that rival products may compete with patented products, just like rival technologies may compete with patented technologies.

In merger review, the first step is the attempt to define the market. Generally speaking, IP markets can be broken down into three main categories: products that are protected by IP; technology protected by IP; and so-called "innovation markets". The last category has been somewhat more controversial: here at a minimum we have to be cautious about defining

[1] Text available at http://www.ftc.gov/bc/docs/horizmer.htm.

[2] Issued by the FTC and the Department of Justice; text available at http://www.usdoj.gov/atr/public/ guidelines/0558.htm.

[3] FTC (2003): *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy;* text available at http://www.ftc.gov/os/2003/10/innovationrpt.pdf.

markets and predicting their future, because when technology is in the earliest stages of development, its path to the commercial market is all the more uncertain. A fact-based analysis is therefore essential in this category. I will illustrate this with the example of a recent case: the FTC closed last year an investigation into a concentrated market structure because a detailed analysis of the transaction showed that it was unlikely for it to produce any anticompetitive effects. In fact, the transaction actually produced efficiencies, i.e., life-saving solutions would arrive on the market faster. The case involved the acquisition by Genzyme of Novazyme.[4] The latter company was engaged in conducting pre-clinical studies related to enzyme replacement treatment for pompe disease, which is a life-threatening disease that to this day has no known cure. Genzyme was the only other company engaged in pre-clinical testing in this domain. Though this was a merger to monopoly, the FTC decided to close the case, because economic analysis of the facts showed that it was unlikely for the transaction to reduce the incentives of the resulting firm to continue to invest in R&D in this area. Indeed, Genzyme placed former Novazyme shareholders in the position to further invest in the research programme, and obtain further benefits if two research programmes utilising the technology were approved by the FDA. In addition—and this was highly unusual—one of the shareholders who was placed in charge of the pompe disease research programme had two children who had the disease. In light of these facts, the FTC concluded that the merger was in reality more likely to accelerate the research. Moreover, the merger was concluded two years before the FTC decision, and for the two years following the transaction, we found no evidence indicating that the research had slowed down.

I think that, in many ways, designing remedies for anticompetitive mergers characterized by IP is more challenging than the merger analysis itself. Without question, the issues arising in relation to hard assets are easier to tackle, but IP has the advantage that, unlike a physical factory, it can be fully utilized by more than one firm at the same time. Licensing remedies present new advantages and at the same time new challenges: for example, requiring long-term licensing may entangle two rivals in a ongoing relationship. To prevent this, we often require an upfront, fully-paid licence. The ability to require licensing as a remedy in merger cases also represents a temptation: we have to remember that, when we accept remedies in a merger case, we seek to replace the competition that would otherwise have been lost on the market, and not to foster a higher degree of competition.

I will give you a couple of examples of how the FTC has used licensing remedies in mergers involving IP. In a recent case that was settled last Fall [i.e., the Fall of 2004], involving two pharmaceutical companies, CIMA and

[4] See FTC Press Release of 13 January 2004: “FTC Closes its Investigation of Genzyme Corporation’s 2001 Acquisition of Novazyme Pharmaceuticals, Inc.”, text available at http:// www.ftc.gov/opa/2004/01/ genzyme.htm.

Cephalon,[5] we alleged that the latter's breakthrough cancer pain drug Actiq had a monopoly in the painkiller market, and CIMA was poised to enter with a drug of its own, because it had such a drug in phase III of clinical development, expected to enter the market during 2006–2007. The merger would have reduced the number of competitors in the future on that drug market, and would have undermined generic entry, because Cephalon was going to shift its patents to CIMA's product prior to generic launch, under a US regulatory scheme that would have prevented generic entry. Our Consent Order required Cephalon to license to a generic drug firm all IP related to Actiq, so as to preserve competition on the market by expediting entry of a lower-priced generic. I think that this was the first time that the FTC resolved the competitive problem arising from two branded pharmaceutical companies merging by establishing a generic competitor who could offer lower prices.

Another example of licensing remedies: when Ciba-Geigy AG merged with Sandoz AG to form Novartis in 1996,[6] the merger combined the patents covering two principal ways of developing and commercializing gene therapy. The merging parties were two of a very small number of firms that could bring gene therapy products to the market. Before the merger, each of them would license the IP to others who started conducting gene therapy research, and therefore could be treated as active rival licensors. It was alleged that the company resulting from the merger would have a disincentive to continue licensing to other companies doing research in gene therapy. Other companies had the facilities and technological expertise to conduct research, but without licences to the merged IP portfolio, they would likely have halted their work. The parties entered into a Consent Decree that required them to license the IP to any company involved in gene therapy research. This was a fairly unusual and unique licensing arrangement to solve the anticompetitive concerns related to that merger.

► James Rill—The US *1992 Horizontal Merger Guidelines*[7] are sufficiently flexible to provide for an appropriate mechanism for the review of mergers involving IP, which requires a good deal of elasticity. I would say that the review of an IP merger fits within the section on unilateral conduct in the Guidelines, although some question whether a pure R&D merger should be subject to challenge. I think this view is probably wrong, but the question is, what is the market for a pure R&D merger? Does the "smallest market" paradigm in the Guidelines have any validity? I do not think that this

[5] The text of the Consent Agreement is available at http://www.ftc.gov/os/caselist/0410025/040809agree0410025.pdf. For the FTC analysis underlying the Consent Agreement, see http://www.ftc.gov/os/caselist/0410025/040809ana0410025.pdf.

[6] See FTC Press Release of 17 December 1996, at http://www.ftc.gov/opa/1996/12/ciba.htm.

[7] See *supra* n. 1.

paradigm applies in this context. A broad reading of the *Genzyme* matter[8] would suggest that one would look to various forms of R&D, multiple paths that could lead to the same therapeutic condition. It is well settled now that pure market share evidence is irrelevant; what really matters is the number of firms involved—this is consistent not only with the 1992 Guidelines, but also with the 2000 *Joint Venture Guidelines* of the US Department of Justice[9] and the 1995 *Licensing Guidelines* jointly issued by the FTC and the US Department of Justice,[10] which suggest that it is the number of firms performing research, and not market shares, to count (although this has not always been the case in the past). In our written contribution for this Workshop, Penny Newman and I put together a number of case examples in this sense. All, with one exception, involve a product that was already on the market, so the analysis is not so much focused on research but on the future product. I would suggest that concrete empirical evidence is needed to examine the scope of R&D. One has to look at the parties to the transaction, and whether they are the first and second likely candidates to produce a future product. How can we make this assessment? If we do not have the happy situation like in the *Genzyme* case,[11] where the merger was already concluded and one can find evidence of the post-merger behaviour of the resulting firm, then one has to look at the company documents, to see if the company is dedicated to research on the future product, and also take evidence from industry experts on their assessment of the research path that has been followed. One can also look at evidence in a related field, to see how research has been moving there. If we look at related cases in non-IP areas, we see that customer testimony, if not based on actual experience, is of little use. Merger cases in fields not related to IP, such as *Oracle/Peoplesoft* or *Arch Coal/Triton*, show that US courts review customer testimony with some scepticism.[12]

As Chairman Majoras mentioned before, remedies in IP-related merger cases are quite interesting: there is a tendency to allow for non-blocking, licensing remedies, which permit the merger to go ahead, but open up the IP to the market. I think IP is an area where we need more cases like *Genzyme*, i.e., we need more analysis on when a merger should *not* be challenged by the competition agencies. *Genzyme* is an excellent example of thorough analysis

[8] See *supra* n. 4.

[9] *Antitrust Guidelines for Collaborations Among Competitions,* text available at http://www.ftc.gov/ os/2000/04/ftcdojguidelines.pdf.

[10] *Antitrust Guidelines for the Licensing of Intellectual Property*, text available at http://www.usdoj.gov/atr/ public/guidelines/0558.htm.

[11] See *supra* n. 4.

[12] The Antitrust Division of the US Department of Justice lost an injunction court trial against Oracle, where the agency was seeking to block the hostile takeover of Peoplesoft. The FTC lost in turn the merger trial against *Arch Coal*. See, e.g., Deborah Platt Majoras, "Recent Actions at the Federal Trade Commission", Remarks before the Dallas Bar Association's Antitrust and Trade Regulation Section, 18 January 2005 (http://ftc.gov/speeches/majoras/ 050126recentactions.pdf) .

of the evidence by the FTC, but that evidence was somewhat unusual, not likely to be available in other cases.

▶ BENOÎT DURAND—I will start by saying that, in my view, the apparent tension between IP law and competition law is by and large overstated. We all know that IP rights are established to incentivize and facilitate the dissemination of innovation. Merger control is also concerned with the innovation process, to the extent that innovation is one of the dimensions examined in the context of merger review. In that sense, it has been argued that the enforcement of IP rights and merger control are complementary policies. On the one hand, IP rights spur the innovation process, and on the other hand, merger control prevents the potential damage to the innovation process resulting from merger transactions. To say that there is no tension is probably naïve. There is certainly a trade-off, as Simon Bishop mentioned yesterday, between short-term price competition and keeping the incentive for investment, especially when we talk about licensing remedies. The US experience in this respect is very interesting. In the EU we probably do not have that much experience in this area.

I wanted to talk about the EU experience over the last five years in the control of mergers involving IP rights in general. Let us take the example of a classic horizontal merger. A keyword search on IP throughout the text of the EU's *Horizontal Merger Guidelines*[13] shows that the subject is not often cited, but is at least mentioned in two places, as a barrier to entry and as an obstacle for existing competitors. So, in the assessment of the competition effects of the transaction the Commission will take into account the presence of IP rights, and seek to determine to what extent this presence impedes existent or potential competition. Take for example the "classic" *Bayer/Aventis Crop Science* merger:[14] both companies produced pesticides, and their products were substitutes. In its assessment of the merger, the Commission noted that the weak position of the generic producer was likely to lead to negative effects. Despite the fact that the products were patented, it was not the patents that prevented the generic producer from having access to the know-how. The Commission decision listed other factors, so this is an example in the sense that the Commission will take IP into consideration among other factors that affect competition.

Non-horizontal mergers typically involve a more complex type of analysis—for example, the vertical foreclosure of rivals through the acquisition of IP. There are situations where there is no horizontal overlap but there

[13] European Commission (2004): *Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings*, OJ C 31 [2004], text available at http://europa.eu.int/scadplus/leg/en/lvb/l26107.htm.

[14] Commission Decision of 17 April 2002, Case COMP IV/M2547 *Bayer/Aventis Crop Science*, OJ L 107 [2004].

is an anticompetitive problem. I will mention the recent case involving the joint acquisition of Content Guard by Microsoft and Time Warner (the deal was eventually withdrawn).[15] Content Guard is a patent holder in the field of digital rights management solutions (digital rights management enables digital content to be transmitted securely over the internet and is thus a very important aspect of online technology). The Commission expressed concern that the transaction would give Microsoft a monopoly over this essential patent portfolio (the traditional input foreclosure scenario). The difficulty in this case was to determine essentiality. There is obviously a clear trade-off here: if the patents are not blocking, you still do not want to give a right of access to this innovation to rivals, and if you do allow access, there are no further incentives to innovate. If the patents are blocking future innovation, you want to intervene, to keep at least the dynamic competition process open.

To sum up, in my written contribution for this Workshop, I reviewed the recent merger control practice of the Commission to see to what extent it involved IP issues. I performed a keyword search on all Commission merger decisions, focusing only on phase II cases (where the Commission expressed concerns about the effects of the transaction) and cases conditionally cleared in phase I, seeking to see whether IP aspects were cited in the competitive assessment part or in the decision. Since January 2000, the Commission has dealt with 140 merger cases in these two categories, and IP was cited in 25 of these decisions (about 17%). If we restrict the search to the competitive assessment, the number of cases including references to IP matters goes down to 10 (less than 8% of the total number of cases examined). This shows that IP aspects do not arise very often in day-to-day EC merger control.

► Jochen Burrichter—I will address the question of whether an isolated acquisition or the acquisition of exclusive IP rights as such can be the subject of merger review or other competition law restrictions.

In the EU context, Article 3 of the EC Merger Regulation[16] lays out the definition of mergers as situations where concentration results from the direct or indirect acquisition of control of the whole or part of one or more undertakings, whether by purchase of shares or assets, by contract or by any other means. Acquisition of control requires that the means used confer the possibility of exercising a decisive influence on the other undertaking, particularly by ownership of the rights to use whole or part of the assets of an undertaking, and by acquision of rights and contracts that confer decisive influence upon the composition, voting or decisions of organs of the undertaking. According to paragraph 14 of the Commission's *Notice on the*

[15] For detailed information about this investigation, see http://europa.eu.int/comm/competition/mergers/cases/index/m68.html#m_3445.

[16] *Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings*, OJ L 24 [2004].

concept of undertakings concerned,[17] the concept of "parts of one or more undertakings" within the meaning of Article 5(2) of the Regulation (the provision dealing with the calculation of the turnover) is to be understood as covering one or more separate legal entities, internal subdivisions, or specific assets which in themselves could constitute a business. Brand acquisition or licensing is mentioned in this context. The condition is that a certain market turnover has to be attributed to the acquisition.

More specific to the question of assets of an undertaking, rather than parts of an undertaking, paragraph 46 footnote 17 of this *Notice* specifies that the term "assets" means specific assets which in themselves could constitute a business, e.g., a subsidiary, a division of a company, or in some cases, brands or licences to which a market turnover can clearly be attributed. For the transfer of IP and IP-related rights to qualify as an acquisition of control under Article 3(2)(a) of the Regulation, it is therefore necessary that the IP could in itself constitute a business, and that certain sales or revenues can be clearly attributed to it.

Further indications are provided in the Commission's *Notice on the concept of concentration.*[18] Paragraph 11 of this Notice stipulates that the object of control can be one or more undertakings which constitute legal entities, or their assets, or only some of these assets. The assets in question, which could include brands or licences, must constitute a business to which a market turnover can be clearly attributed. So, the mere acquisition of an IP right, if related to a turnover, can qualify as a concentration. It appears, however, that to this date no EC merger decisions have been taken based on the assumption of a concentration exclusively linked to the acquisition of a brand or licence of IP rights. At least for IP rights to which a clear turnover can be attributed, the EC case law indicates that the transfer of an IP right may qualify as an acquisition of control. All decisions so far dealing with the transfer of intangible goods, such as patents or licences or other know-how, also involve the transfer of tangible assets, such as the acquisition of shares. For this reason, it still remains to be seen whether the mere transfer of an IP right, without any other tangible assets or shares, may qualify as the acquisition of control.

By contrast to the EU situation, in Germany the *Bundeskartellamt* (BKA) applied in several cases the German merger control provisions to the isolated acquisition or even the exclusive licensing of IP rights. One example is the recent BKA decision in the *National Geographic* case,[19] involving a concentration through the mere transfer of intangible goods. The BKA decided that the purchase of a 10-year exclusive licence for the German edition of *National*

[17] OJ C 66 [1998], text available at http://europa.eu.int/comm/competition/mergers/legislation/un406489_en.pdf.

[18] OJ C 66 [1998], text available at http://europa.eu.int/comm/competition/mergers/legislation/co406489_en.pdf.

[19] BKA Decision of 2.8.2004—B6-26/04—*National Geographic*, WuW/E DE-V 947.

Geographic magazine by the German publisher Gruner + Jahr constituted a concentration. Gruner + Jahr was the first publisher to introduce a German edition of *National Geographic*—previously only the English edition of the magazine had been available in Germany—with a distribution of approximately 50,000 copies. The BKA held that the acquisition of the licence constituted an acquisition of control within the meaning of Section 37(1), paragraph 2a, of the German merger control act, which is identical to Article 3 of the EC Merger Regulation. The BKA found that this provision was meant to also catch concentrations achieved through an agreement with another undertaking by which all or a substantial part of the business of the latter is leased or otherwise transferred. It concluded that, in this specific case, the acquisition of control covered both the transfer of use rights *in rem* and *in persona*. It therefore did not matter that the granting of the licence was limited in time, and that the rights were only licensed, and not sold. It would depend on whether only the acquired part of assets was capable of strengthening the acquirer's position on the relevant market. Quoting earlier decisions of the German Federal Supreme Court and the *Kammergericht*, the BKA stated that one would have to consider only the abstract ability of the acquired part of the assets to change the market position. The title of the magazine, and the name of the National Geographic Society in general, were well established; therefore no new launch of a title for the popular magazine on the German market was necessary for Gruner + Jahr, and the title and publication constituted a substantial part of the business of another undertaking.

Before concluding, I would just like to briefly add that, besides merger control, the mere acquisition or exclusive licensing of an IP right may of course also fall under Article 82 EC. I can refer to the *Continental Can* decision,[20] which still applies in cases where the EC Merger Regulation is not applicable.

► Patrick Rey—Generally speaking, efficiency considerations should play an important role in merger control at least as important as the analysis of effects on prices and output. This naturally brings us to the issue of the interaction between market structure and innovation. The analysis of this interaction is actually quite different from the traditional analysis of effects on prices and output. In the absence of synergies or other efficiency gains, there is a general presumption that the merger between two competitors increases market power at the expense of consumers. By contrast, the impact on innovation is much less clear. Similar comments apply to non-horizontal mergers.

In my written contribution I briefly reviewed the economic literature on how market structure affects innovation. First, it affects the expected returns

[20] Case 6-72 *Europemballage Corporation and Continental Can Company Inc. v. Commission of the European Communities* ECR [1973] 215.

on innovation. In this respect, the Schumpeterian view emphasizes the role of monopolies, or monopoly rents, as a key driver for innovation. In the same vein, competition increases the risks of *ex post* expropriation through the dissemination of innovation or the diffusion of the innovation itself. In addition, monopolies may be better placed in terms of their financial ability to fund R&D projects and manage the risks associated with innovative activity, or to reap the economies of scale involved in R&D. By contrast, the Darwinian view emphasizes the role of competition in fostering innovation and growth. Competition enforces the selective process, forces firms to innovate in order to survive and so on. While an incumbent monopoly "replaces itself" when it has to innovate, a competitor does not have to do this replacement, and therefore has greater incentives to invest in R&D.

The recent literature on the so-called "endogenous cause" confirms this ambiguity about the effects of the interface between market structure and innovation. Both theory and empirical work have identified relevant factors that may help assess the likely impact of changes in the market structure on innovation, productivity, etc. Those factors include the nature of the innovation ladder itself (i.e., whether the innovation comes in big steps, or gradually, in smaller steps), financial constraints, financial structure, the corporate governance of the firms. It is not always the case that more competition leads to more dynamic efficiency, and it is not clear either that less competition generates greater innovation and efficiencies. This calls for a more cautious attitude towards mergers than what the focus on short-term effects might suggest, and for the careful analysis of the specifics of each merger.

I will turn now to non-horizontal mergers, and consider mergers between complements. In the short term, the analysis focuses on the impact of a merger between complements on prices, and whether it will lead to double marginalization or to lower prices and more output. The analysis of the likely impact on innovation is less clear. A very good article by Farrell and Katz[21] considers the case of a firm that has a monopoly in market A and is also present in market B. Innovation in market B will raise demand for the system as a whole, and therefore has positive spill over effects on the demand for the monopolized good in market A. So, *de facto*, a conglomerate firm will have more incentive to innovate, but at the same time, it may discourage rivals from investing in innovation in that market. The overall welfare analysis of such a merger is quite ambiguous.

Vertical integration can be a good way for innovators to exploit their innovation. Of course, there is also the risk of foreclosure, but at the same time this may be the efficient way to reward innovation. I will submit that. when vertical integration involves R&D or better ways to exploit the innovation, this calls for a cautious attitude on behalf of the antitrust

[21] Farrell, Joseph and Michael Katz (2000), "Innovation, Rent Extraction and Integration in Systems Markets", 48 *Journal of Industrial Economics* 413.

agencies. One should take into account that vertical integration is one among several means to achieve this purpose—exclusive licensing may be an alternative, and actually it may be less efficient to encourage a firm to opt for exclusive licensing. Vertical integration substitutes for multiple licensing for alternative usages—for example, another alternative may be for the innovator itself to exploit the technology, even in situations where it might not be the most efficient way.

I will conclude with a few remarks on some implications of IP and innovation in merger control procedures. On market definition, the message is that, of course, we need to be more forward-looking, perhaps even more than in other cases—for example, when it comes to the price levels, we should remember that those prices are likely to evolve, and distribution has to be taken into account. Some observers suggest that failing to take these features into account may lead to a too narrow market definition. I do not think that this is necessarily true: it really depends on whether the prices of the merging firms are likely to evolve more happily or less happily than others, and this may go either way. In terms of what products should be accounted for, of course, we must take into account not only the existing products, but also the new products that are likely to be introduced, and also the existing products that currently are not credible alternatives, but may become credible alternatives with the evolution of prices and innovation. Generally speaking, economists are reluctant to rely solely on market shares in order to assess market power or dominance, and this applies all the more when innovation is present. Consider a "winner take all" type of industry, in which there is a succession of temporary monopolies. Here, market share does not provide a meaningful basis for analysis—what matters is the ability of competitors to exert pressure and keep on innovating.

In terms of effects, usually for horizontal mergers we tend to discuss unilateral and coordinated effects. As far as the latter are concerned, innovation markets are not good candidates for collusion and coordination, so maybe this is less of a concern to antitrust agencies.

In terms of efficiencies, usually we tend to emphasize reductions of variable costs rather than fixed costs. When it comes to R&D, the reduction in fixed costs actually encourages R&D, and this may also be relevant. I would like to stress again the importance of considering alternative scenarios: sometimes it is tempting to compare the situation of the merger under assessment with that of another merger, so as to determine what are the alternative strategies for the IP product.

A brief final remark on remedies: in contrast with physical assets, IP rights allow not only for the transfer, but also for the sharing of the asset, and this may be a more efficient remedy. Broadly speaking, there is a wider range of remedies starting from the mere transfer *en bloc,* or transferring the asset and keeping the licence for the original, or the other way around. It is sometimes argued that licensing remedies may increase the burden for the competition authorities in terms of *ex post* monitoring. I would submit that physical assets can also create this sort of problem—I always like to refer to the ongoing dispute following the *MCI/WorldCom* merger,[22] where the backbone of the MCI business was divested to Cable & Wireless, and then there was disagreement for several years on whether the backbone was properly transferred, etc. At the same time, when it comes to licensing, you can rely on third parties to monitor the type of concerns that this kind of remedy may create.

► Thomas Vinje—It is quite clear that, when we talk about the interface between IP and mergers, there are two aspects to consider: first, how can one can better exploit existing IPs through a merger, and second, the creation of new IP. Here we talk about making sure that the incentives for innovation remain in place. Particularly in the pharmaceutical industry, the production function is a black hole. From what I gather when talking to people in this industry, there is no unified business model, and on top of this there is a considerable decline of productivity in the R&D (it is ever more expensive to find new drugs, and there are fewer drugs released on the market, etc.). It therefore seems to me to be extremely difficult to make a judgment on a merger involving this latter aspect. As Patrick Rey told us, there are many possibilities to consider, but economic models do not give a clear answer. My question is: how do the US antitrust authorities deal with this? Is the approach to just let things go through? James Rill mentioned before that evidence from the firms can be used, but I am not so sure that this evidence will tell a lot about innovation. There are some critical sectors from this perspective, and the pharmaceutical industry is one such example.

► Deborah Platt Majoras—You touched indeed on the greatest difficulty. I agree with Patrick Rey: we really do not know enough about incentives to innovate for any companies in any field; quite frankly, the empirical research is thin. Pharmaceutical companies are an interesting breed, because the kind of competition that we look for in merger review is direct competition for particular products, but we know that pharmaceutical companies are also competing generally to come out with new products. At any given moment, they can point to a competitor without really knowing what that company has in the research pipeline. So, the further back in the pipeline of research we go, the greater the amount of uncertainty. When we have so much uncertainty about particular forms of research, and what commercial products they might generate, we cannot make a case for challenging that merger. There are stages in the FTC regulatory process where more and more is known—the

[22] *MCI/WorldCom*, Case M 1069/1998. The Commission's decision and other details are available at http://europa.eu.int/comm/competition/mergers/cases/index/m21.html#m_1069.

process reaches a stage of clinical development where one can see the starting signs of an actual marketable product. As we move along that spectrum, it becomes easier to identify products that would potentially compete. When we go to court to challenge a merger, we must have solid evidence in the sense of the identified problem. The FTC has done a lot of work in the pharmaceutical industry in recent years, and the industry is totally familiar with the way we analyse their mergers, so these cases never end up in trial. In other words, from the moment these companies walk through our door to propose a merger, they already talk about what the potential horizontal overlaps are, and how they propose to solve them. Frankly, the consent decrees that we enter into in those cases are very complicated settlements, because pharmaceutical factories cannot just be transferred tomorrow—there are FDA rules to follow . . . but our staff has been doing this for years, and is quite familiar with the dynamics of this marketplace.

▶ Rochelle Dreyfuss—Another question related to mergers in the pharmaceutical industry: is there any distinction being made between the different kinds of IP assets involved? Some of these assets may cover products where you can really see the problem, but some of them may cover research tools, and for the latter, it seems that a merger can bring about efficiencies because it enables more people to use these research tools.

▶ Deborah Platt Majoras—Yes, we absolutely make that distinction. The question we are trying to answer is what is the state of competition today between the merging firms, and what will it likely be after the merger? If the merger combines the only available research tools on the market, and we think there may be a reason for the resulting firm not to license in the future, that is a problem. On the other hand, there may be tremendous efficiencies in a vertical relationship. This is a highly intensive fact-based inquiry. We are not making a lot of hard assumptions. And this is why it can take several months to reach a decision.

▶ Ernst-Joachim Mestmäcker—If I am not mistaken, in the review of the US case law I have not heard mention of an assessment of IP-related market power. The US case law seems to concern especially patents, and there is less on trademark lock-in effects and so on, whereas this is present in the EC's *Horizontal Merger Guidelines*.[23] This can be important, especially in cases where the merged entities have patents that may be expiring soon, but thanks to the rules on reputed trademark, they can retain much of the market power previously associated with the patents. I wonder if there is US case law specifically considering this lock-in effect of reputed trademarks.

[23] See *supra* n. 13.

► Deborah Platt Majoras—There is no question that we would take it into account if a strong trade mark or branding are strong barriers to entry. I cannot think now of a particular case illustrating this, but there is no question that such an aspect would be taken into account if it arises. The US *Merger Guidelines*[24] do not mention this issue, but then again, the *Merger Guidelines* do not talk about IP at all.

► Douglas Melamed—Maybe IT and the pharmaceutical industry are different in the sense that, in the pharmaceuticals industry, one patent is sufficient for one product, whereas in IT, a collection of patents may be required for one product. This difference may have important implications.

I wanted to go back to the point made by Benoît Durand on the *Microsoft/Content Guard* proposed acquisition,[25] which raised the question of whether the patents were blocking. This came into focus because there was an entity there, Content Guard. I suspect that an issue under-explored by the competition authorities is the acquisition of patents. Namely, you do not have to acquire a company in order to raise the same competitive concerns that *Microsoft/Content Guard* potentially raised, i.e., by acquiring patents, one might acquire a blocking position that otherwise would not have existed.

On the other hand, it seems to me that, even if you are acquiring a blocking position, that may not be the end of the competitive analysis, because if others also have blocking positions, and the company retains an incentive to develop the technology—and I take it that even if Microsoft acquired a blocking position on digital rights management it would have retained an incentive to develop digital rights management functionality, because the industry is demanding it—then one might say we do not have to worry about market power, because the company has to accommodate the other owners of blocking power by some kind of cross-licensing or patent-pool arrangement.

One final point about patent uncertainty: I continue to believe that this is an important issue in a lot of antitrust areas, including mergers, since to the extent that mergers involve patents, they raise questions about what the patents mean, whether they are valid, and have the competition authority the issue of how to tackle these questions. I remember a case before the Antitrust Division of the US Department of Justice at the time I was working there: two parties were competing, they were involved in patent litigation, and one of them acquired the other. The legal counsel for the merging parties argued that, if the buyer's patents were valid, there was no lawful competition taking place, because they were entitled to prevent the acquired firm from competing, and therefore the merger could have no harmful effect on competition. If, on the other hand, the patents were not valid, there was no

[24] See *supra* n. 1.

[25] See *supra* n. 15.

entry barrier, so no reason to worry. I found this argument suspicious. To me, the issue was whether there would in fact have been competition between the merging parties before the issue of patent validity was resolved, in light of uncertainty about that issue. We at the Justice Department had no way of knowing whether the patents were valid or not, so we had to look for proxies. In that case, our proxy was that the parties were the only ones competing on that market, and one could infer from their behaviour that the unresolved patent validity litigation was a deterrent, or entry barrier, to others, but not to the continued competition between the two parties, and therefore there was real competition that was affected by the merger.

So, the question of patent validity is very important in merger analysis, unless the competition agencies want to go through a patent trial. I would be interested to learn from the representatives of competition agencies around this table how they find proxies to illuminate the question of whether there is sufficient likelihood that acquisitions of patents will create a competitive problem.

► BENOÎT DURAND—Regarding the blocking position of Microsoft in the mentioned case, this is clearly something that we needed to take into account. Obviously, if Microsoft acquired a so-called blocking patent, and rivals were also in possession of similar patents, the incentive to cross-license was obviously there. I believe that this was not the case. Douglas Melamed touched upon a difficult point when talking about patent uncertainty: the competition authorities cannot judge upon the validity of the patents, so they must make a probability assessment. Furthermore, in the IT industry we usually do not talk about single patents, but about "thickets" of patents. Our understanding was that the mere amount of patents that were acquired made it more likely that Microsoft would be able to oppose any entrant. We tried to define a proxy in this case, but it was difficult to do.

► HANNS ULLRICH—One of the problems that I see here derives from the fact that merger control, by definition, takes place *ex ante*. How are we going to define blocking situations *ex ante*? Yesterday, when we discussed patent pools, someone suggested that neutral patent experts could be called upon to assess whether the patent is essential and likely to be valid. Why cannot this also be done in merger control (except obviously for reasons of time constraints)?

► JAMES VENIT—As far as I understand, there is a fairly high failure ratio of innovation in the pharmaceutical industry, taking place even when products get into the third phase of research. How do competition agencies take into account that potential risk factor when dealing with an overlap situation and a divestiture?

► Peter Plompen—I think the *Microsoft/Content Guard* case[26] was, in the end, the result of a "changing coalition" approach—in other words, when one has the possibility of changing the content of the coalition, there is no joint venture and no merger, as this falls outside the scope of merger control.

As to the proxy issue, I think that, indeed, like the case of patent pools, the uncertainty can to a certain extent be mitigated by an independent expert, although the context of a merger is different. Another good proxy is to look at the financial reservations on the balance sheet of the companies involved for dealing with the possible consequences of litigation. Cross-licensing was mentioned today as a solution to blocking positions. We should be aware, however, that reaching a cross-licensing agreement is often a long process. There are many situations where the parties are sort of seized into cross-licensing agreements, based on the perception of the litigation risks involved. If they intend to enter such an agreement, we should be able to see that on their balance sheet.

I listened with curiosity about the FTC's *Genzyme* decision.[27] I understand that this merger analysis was a particularly intensive fact-finding process, where even the personal situation of the Vice-Chairman of one of the companies involved was taken into account. In the US system this sort of factual evidence seems to be accepted, whereas in Europe this does not seem to be the case.

► John Fingleton—Small competition authorities, like the Irish one, do not get very often to review mergers involving IP. This seems to be a good thing: notwithstanding the fact that, technically speaking, the Irish competition agency is very competent, I would still hate to have to deal with some of these issues.[28] We analyse mergers using four types of evidence: economic principles, economic evidence, internal documents, and customer evidence. The further away you move from the market, all of them tend to erode: internal documents become of not much use, and customer evidence will not get us very far either when it comes to basic R&D, and economic principles also lose much of their predictive value. The question is: in this type of environment, should we adopt a more permissive stand? This also calls into reflection the relationship between market structure and innovation: is there a clear link? We do not know much about this. If we do take a more permissive stand, the question goes back to what we discussed yesterday about *ex post* monitoring of property rights. Should the resulting property right become, a few years later, subject to a higher level of scrutiny?

[26] See *supra* n. 15.

[27] See *supra* n. 4.

[28] At the time of the Workshop, Prof. John Fingleton was Chairperson of the Irish Competition Authority. As of October 2005, he was appointed Chief Executive of the UK's Office of Fair Trading.

▸ Hanns Ullrich—I am surprised that nobody brings brands into the discussion. In the German *National Geographic* case mentioned earlier by Jochen Burrichter, the deal was about the title, but the background issue was that, by acquiring the title, the purchaser also acquired the public of the magazine. This is different from cases where you acquire patents on technology and you do not yet know how they will do on the market. I also wondered about the empirical evidence from the EU collected by Benoît Durand, because in his search he used keywords such as “patents”, “trademarks”, “know-how” and “IP”, but not “brands”, whereas competition lawyers tend to use the term “brands” instead of “trademarks”.

▸ Deborah Platt Majoras—Douglas Melamed talked about the uncertainty of patents. Actually, at the FTC we have faced several situations in which two parties involved in patent litigation against each other—one asserting infringement, and the other counter-claiming for invalidity—decided to merge in the process of settling the case. I do not think that the difficulties in assessing this sort of situation are insurmountable, but it is not an easy assessment either. Calling in an independent expert to evaluate the scope of the patents is a possibility, but not an optimal solution to the problem: after all, both parties brought highly qualified experts in the patent litigation, to begin with. But I wanted to point out that in merger review, generally, there are lots of uncertainties to face, and this is why we proceed with such care. We challenge only a handful of cases because it is so hard to marshal the necessary evidence. To answer James Venit’s question: yes, when pharmaceuticals are in the research pipeline, it is almost like a sliding scale—the further back in the pipeline, the less likely it is we are going to challenge the merger because, for one thing, we have no idea who else might have similar research in the pipeline, and we cannot *subpoena* every possible company that might do such research. Statistics show that today only one of 250 products reaches the third phase of the research process. So it is a matter of recognizing that our tools are too blunt to intervene at this stage. Finally, on *Genzyme*,[29] I wanted to mention that one FTC Commissioner dissented on this decision, and eventually the father in question left the company . . . but that was only one of a number of factors that we took into account. The bulk of the evidence that we gathered went into great detail about the companies themselves, and what was driving them to do the research, and that it really was not about competing with each other, but they had independent incentives to go ahead. And finally, yes, we do have the possibility of reconsidering a decision after consummation and go back to challenge the merger. We do not do it very often, but we do have that option.

[29] See *supra* n. 4.

▶ James Rill—Just one quick comment on the nature of evidence. I do think that company financing and strategic planning documents can shed a bit of light on a company's commitment to a particular line of research. I believe that such evidence was considered in *Genzyme*. Another point: one should not rely entirely on the stage of FDA approval in order to bring a case, because the fact that a company may be well down the research pipeline does not necessarily mean that in the end the company will bring the product on the market, or that it will be successful.

▶ Benoît Durand—A short comment on facts and evidence. It is obviously very difficult for us to evaluate these facts and the validity of the IP rights, and we often hire independent experts. Peter Plompen raised the issue of choosing the proxy. I remember a recent case where a company representative told us that if they were going to be sued they would turn to the liquidity market. I find this statement quite telling about the validity of financial evidence from the companies.

▶ Jochen Burrichter—Coming back to the issue of brands, I can refer to another case brought before the German Federal Supreme Court, *FRAPAN*,[30] where the BKA assumed that the mere acquisition of a brand that had not even been used by the owner constituted a merger. I mention this case because it involved a slightly different definition of mergers, but in light of the *National Geographic* decision,[31] I think that this case would nowadays also be treated under the concept of acquisition of control, and the result would be the same. Remarkably, the Federal Supreme Court assumed that the acquisition of the brand as such enabled the buyer to acquire a market position, and thereby significantly influenced market conditions. The mere possibility to use this brand, in addition to the market position that the acquirer already enjoyed, was sufficient in order to prohibit this merger.

Another comment on the difficulties arising in enforcing remedies in the form of licensing agreements: as we have seen, it is common practice in such cases to offer remedies in the form of granting licences to third parties. The EC Commission tries to solve the common problem of behavioural commitments by entering into arbitration agreements. I doubt that this is a good way to solve the problems of controlling the enforcement of imposed remedies. In practice, there are problems if the arbitrator has to decide, for example, what is a fair royalty, to what extent the licence has to be granted, and for what period.

[30] See the BKA's *Tätigkeitsbericht 1993/94,* at pp. 17, 19, 100–101.

[31] See *supra* n. 19.

► Patrick Rey—Again, in such cases economic theory does not help much, so in practice we have to rely on evidence to resolve the issues. It is difficult to assess the impact of market structure on innovation because it is difficult to disentangle the two. But we should not be pessimistic, because some empirical economic research in this sense is already building up, and soon we hopefully will have some firm results, at least for some industries. One of these studies suggests that internal agency problems (i.e., the way in which firms are organized) plays an important role—for example, competition is more likely to benefit innovation when firms have dispersed ownership. Finally, a word on joint ventures: in Europe, the competition law enforcement approach to cooperative joint ventures is under debate. There is suspicion that joint ventures may facilitate coordination, but at the same time, it is sometimes the case that this may be the way for two companies that want to achieve their R&D objectives.

► Hanns Ullrich—Just one final remark: the problem of ancillary restraints has not even been touched upon in this debate, and this shows that probably under the new EC *Horizontal Merger Guidelines* it is no longer an issue.

Panel IV: Abuse of Dominance in Licensing and Refusal to License

▶ Calvin Goldman: My written contribution for this Workshop summarizes in some detail the Canadian antitrust approach in the area of IP licensing. Not surprisingly, Canada finds itself (again) somewhere between the US and the EU approaches. I say “somewhere” because this area is very difficult to define with precision, and the approach is case-by-case and fact-dependent.

A few years ago, the Canadian Competition Bureau developed an exceptionally detailed set of *IP Enforcement Guidelines* (IPEG).[32] The IPEG are based on an extensive study of the US corresponding guidelines and case law, and attempt to articulate the very issue that Hewitt Pate raised in his opening remarks yesterday, the so-called “plus factors”, i.e., the additional conduct that goes beyond the mere unilateral exercise of a right to license. The IPEG add to our Competition Act, which is far more detailed on abuse of dominance that the US statute, and far more civil law-oriented than usual in a common law jurisdiction. In the last twenty years the abuse of dominance provision was applied in several cases. Under Canadian law, a company not only has to be dominant in terms of market share, etc., but also has to engage in a series of abusive acts that substantially lessen competition on the relevant market.

The same holds true for licensing cases. The Bureau has been very cautious about unilateral licensing cases: it has to be something exceptional (and here we get closer to the European approach). The criteria for defining exceptionality are well refined, and like in the US approach, the Canadian law does not equate IP to market power in itself.

There is one essential difference from the US situation: we do not yet have case law in this sense, and our guidelines do not yet go so far as to define innovation markets. In IP cases, as the IPEG articulate, the Bureau will generally consider two categories of markets: the technology market (which covers both the tangible part and the know-how, i.e., the processes related to IP rights) and the market for intermediate or final products. However, the Canadian Competition Bureau does consider related efficiencies, especially dynamic efficiencies, as well as justifications, and superior competitor performance, before granting an injunctive order.

In the written contribution I commented on examples of “something more than the mere exercise of IP rights”, flowing from attempts through a licensing agreement to conceal or derive some form of market sharing arrangement, agreements that incorporate some kind of plan or scheme to prevent the entry of new technologies on the market, various other specific examples of tying or bundling, concepts such as exclusive grant-back (and I illustrated

[32] Full text available on the iste of the Canadian Competition Bureau, at http://www.competitionbureau.gc.ca/internet/index.cfm?itemID=1286&lg=e.

this with a case which refers to a requirement that a licensee grant back all rights to any follow-on IP), restrictions on challenging the validity of the IP itself, certain types of non-compete obligations flowing out of the IP grant, and other conduct-related activities where there is a pattern of acquiring key potential competitors' customers and suppliers in the context of the exercise of IP. Even using IP licensing to encourage the adoption of standards that are only valid for the duration of the IP right, or foreclosure of entry through standard-setting, may fall within such practices—for example, a practice by a dominant licensor of locking in the suppliers of the competitor's essential input through foreclosure contracts related to the licence granted. In our paper we also mentioned examples of cases where injunctive orders were granted, but Canada has not had more than half a dozen abuse of dominance cases in the area of IP. The IPEG go far beyond the case law, and still remain to be tested.

► Eleanor Fox—I limited my written contribution to examining situations of refusal to license IP where one could infer that, by requiring the owner to license, there will be consumer and innovation gains, but there will also be innovation loss on the part of the owner company. In this context, I cross-examined certain EU cases. I first asked the question whether the EC Courts and the Commission can, within the limits of their competences and abilities, determine whether in certain situations there is a significant loss in innovation by a dominant firm failing to give access to the IP. I also asked the subsidiary question: to what extent, when we have such a problem, do we rely on presumptions, and what are those presumptions? I thus observed what I believe to be a different starting presumption on the EU side and the US side.

For my cross-examination of the EC cases I asked a series of questions, which I shall try to summarise with a slightly different formulation than in the written contribution. The first question is: how important is the dominant firm's right to say "no" to licensing it? In other words, what do we lose by requiring it to license? Second, how important is access to technology for probable creative innovation by outsiders, and possibly also by the dominant firm itself, to the extent that competition from the outsiders could cause it to invent more? Third, can we subtract one from the other and obtain a meaningful figure as to what is the net effect on innovation and consumer welfare? I chose to apply a scale from 1 to 10 in replying to these questions for three cases: *Magill*,[33] *IMS Health*[34] and *Microsoft*[35] (and I put in some figures that might be debatable, but they show my own appreciation).

[33] Joined Cases C-241/91 P and C-242/91 P *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v. Commission* (*Magill*) [1995] ECR I-0743.

[34] Case T-184/01 R *IMS Health Inc. v. Commission* [2001] ECR II-03193; Case C-481/01 *NDC Health v. IMS Health and Commission* [2002] ECR I-03401.

[35] Commission Decision C(2004) 900 final of 24 March 2004 relating to a proceeding under Article 82 EC (Case COMP/C-3/37.792—*Microsoft*), web version of decision (non-confidential information) available at http://europa.eu.int/comm/competition/antitrust/cases/decisions/37792/en.pdf.

In response to the first question, in *Magill* I think that nothing is lost in terms of innovation by obliging the firm to license the TV schedules, in the sense that these schedules will continue to be produced anyway. In *IMS Health*, I would think the right answer is also close to zero, in the sense that not much would be lost in the sense of incentives to set out grids to collect the information. In *Microsoft*, the question is more difficult: how much is lost in Microsoft's incentives if it discloses complete interoperability information so that the work group servers of rivals may interconnect or interoperate with Microsoft's operating system? If the question is, would Microsoft be less inventive regarding that part of the operating system, I would say that the loss of incentives is reduced, because Microsoft must devise a good enough interface for their own purposes, to speak to their own servers. But there are also other things at stake, so I give it a rating of 1 to 5 out of 10.

Secondly, how important is access to the IP to innovation as a whole? In *Magill*, the answer must be almost nothing, because people know what a TV guide is, and there is not much gain on the side of innovation. But if you change the question, and ask what is gained in terms of consumer welfare, then the answer is that consumers are definitely better off, because they wanted the TV guides. In *IMS Health,* the gain in terms of innovation is still to be decided. Will NDC come up with something new and creative as a result of being able to put the information that it gathers into those block grids? I think very little is gained here, although something is gained for the pharmaceutical companies, because they have another source to go to for the data. In *Microsoft*, I think that the gain for rivals in terms of innovation derived from gaining access to the interoperability information is substantial, probably a 10, for the rivals would have diminished incentives to work in the work group servers area.

The third question is whether you can find net loss in innovation from the subtraction that a duty to license causes a net loss in innovation. Here *Magill* and *IMS Health* get close to 0—there is not so much at stake. *Microsoft* gets 7 to 8—I would think that, if you require complete licensing for interoperability, something very important is gained from computers being able to speak to one another.

The next question is: how important is it to world competitors; is there something important gained for the society? In *Magill* and *IMS Health* the answer is "very little", but in *Microsoft* I see a potential huge gain.

I also asked questions of a different sort, and one of them is: is the essence of the matter that the company that owns the IP refuses to license, or is it that this is part of a competitive strategy? In *Magill* and *IMS Health,* I believe the answer is "no", and this is why many in the US were surprised by these judgments—probably these companies just wanted to make more money with their technology; no leverage problem and the refusal was not part of a strategie scheme. The ECJ probably considered in *Magill* that there was a new product that consumers wanted, and in this case there was a duty to deal.

To sum up, there are factors that can tip the balance in favour of requiring a duty to deal. In the US, basically, this is done when "saying no" is part of an anticompetitive strategy. However, that characterization is subject to some manipulation. For example, in the *Trinko* case[36] (which is not about IP), Verizon is both the owner of the local loop and a competitor in the downstream market. According to Trinko, Verizon has degraded access to the local loop as part of a competitive strategy to keep the customers for itself when the local market becomes susceptible to competition. But the US Supreme Court found that Verizon was just "saying no".

On centrality of the IP to what the client really wants: in *Magill* and *IMS Health*, the client wants the technology so as to use it to make more money. In *Microsoft*, the complainant wanted to interoperate with the computer, and this happens to involve IP. That is a big difference.

I will come back to my original questions, i.e., how can we predict with some confidence that a duty to licence has a significant negative effect on innovation and whether an antitrust intervention will have a significant positive effect, and what is the role of presumptions, etc. In the EU, at least in the *Microsoft* decision, there is a presumption that complete interoperability information is good for consumers and innovation. I find that in the US we have not even got to that level of specificity—in *Trinko*, for example, there is a very strong presumption that imposing a duty to license has very strong negative effects on innovation. Is there room for convergence between the EU and US on any presumptions? Is there economic theory to justify certain presumptions?

► James Venit—I have five (not necessarily related) comments. To begin with, I do not have a dog in the *Microsoft* fight, so what I will say is not in any way related to the interests of the parties in that case.

First, is IP a different form of property? If you read the EC case law, you cannot come to any other conclusion than "yes". In *Bronner,*[37] which was not an IP case, the only thing you needed to prove is that you need access in order to compete. In *Magill* and *IMS Health* there is an additional requirement, i.e., a need for access in order to be able to introduce a novel product that the IP owner is not making. That is a big difference.

Second, how much is property respected in EC law? In the freedom of movement cases it is not respected at all—there is a massive pro-free movement rule, and one chips away into little grains of sand with the exceptions to this. In EC competition law it is exactly the opposite: a general principle of "no need to license", which has been chipped away a bit by *Magill*, *IMS Health* and *Volvo v. Veng.*[38]

[36] *Verizon Communications v. Law Offices of Curtis V. Trinko*, 124 US 872 (2004).

[37] Case C-7/97 *Bronner* [1998] ECR I-7791.

[38] Case C-238/87 *Volvo v. Veng* [1988] ECR 6211.

Third, how do we balance the perceived conflicting interests between the IP right, which is statutory, on the one hand, and the objectives of competition law and the principle of free movement on the other hand? I think there we never come up with something very successful, at least not in the free movement area, because people argue that this use is just within the scope of existence of a right—which to me looks totally suspicious as a form of analysis. One way to do it, which does not work, unfortunately, is to try to define the scope of the patent, and decide that any time one is outside this scope, he is in the area where antitrust can bite. But the fact is that antitrust has bitten at the scope of the patent many times—something that I described in my written contribution as "the moving shimmer" fallacy, because if you look at the "nine no-no's" in the US, there was a lot that was said at that time to be outside the scope of the patent that is now said to be is inside it.

Probably the only two sure pegs you can have would be, first, patents that are fraudulently obtained (because they are not valid), and second, the situation of non-exploitation—which, interestingly enough, was the *Magill* paradigm. So, if you look for principles for the inroad of competition law consistency with IP rights, you might come up with those two principles.

Fourth, is there a difference between what is now referred to as "one-star" and "five-star" IP rights? In a certain sense, *Magill* was a joke—there was no innovation there, no intellectual effort. And yet the Court took that joke very seriously and did a very detailed analysis, coming up with very important list of cumulative conditions that impose a considerable restriction on requiring a licence. To me, this shows that there may not be a difference between one-star and five-star rights, because they took a one-star IP right analysis very seriously. Where is the area where there may be a difference? On incentives to innovate: in *Magill*, and arguably in *IMS Health*, there was no incentive to innovate that was going to be put in jeopardy by granting a licence; in a case like *Microsoft* I think this is a more open question, and that will be litigated, so we will get an answer.

A last point on the ECJ doctrine of "exceptional circumstances": what does it mean? The way the ECJ defined the test, you have to be restraining the entry of a new product that the IP right owner is not producing on what is called "a secondary market", and the refusal has to be unjustified. I want to look at the secondary market concept first, because there, through *Bronne*r and *IMS Health*, the Court eliminated any requirement of what in the US is one of the pre-conditions for requiring licensing, which is leveraging from a downstream or upstream market. In Europe, all you need to prove is that the licence is needed. The way the EC Courts have achieved that was to say "well, if there is a market for the product, i.e., if there is a demand for that product, you pass the test". In *Bronner*, interestingly, the Commission had argued that there had to be two markets, and then there was an inquiry into whether Bronner had in fact allowed other people to use its night service, so in a way it created a market for that by itself. The Court ignored those issues, and established that the only issue was whether there was a recognizable demand for something which may not necessarily be a market. The Court then refined this criterion in *IMS Health*. The justification for refusal is not analyzed—the Court has not yet dealt with it.

Last, the notion of a new product: when in *Magill* and *IMS Health* the Court established that it has to be a product that the IP right owner is not itself producing, it established a standard not on competition, but on innovation, and that at least respects to some extent the IP law rationale.

▸ Josef Drexl—I will focus my presentation on the issue of whether there is an economic approach to refusal to license situations, especially in the light of the current debate on the drafting of Commission Guidelines on the application of Article 82 EC.[39] In my view, the European law is not defined by *IMS Health* only, but also by domestic law, simply because Regulation 1/2003 allows the application of domestic law in the context of unilateral restraints on competition.

What are the possible economic approaches to analysis under Article 82 EC? In *IMS Health* the approach was very traditional, combining elements of leveraging theory (the Court identified two different markets—of course, there was a challenge to recognizing the licence market as a potentially separate market) and arguably elements of a restrictive essential facility doctrine, requiring in addition the prevention of the emergence of a new product. It is quite interesting that the *Cour d'Appel de Paris*, some months before the ECJ, had applied the essential facility doctrine in a decision regarding an IP case involving distribution of newspapers in France.[40] The claimant in this case wanted access to a computer system applied more or less in all of France. This was a clear application of the essential facility doctrine without requiring a new product.

I think, however, that there is another approach which maybe has certain advantages: the Commission's TT Guidelines[41] start from the premise of complementarities of goals between competition and IP law. The question to ask, according to this more economic approach, is: what are the effects of a certain behaviour on the market? In other words, what are the effects of a given IP right, and what are the effects of a refusal to license? Interestingly, some months after *IMS Health*, the German *Bundesgerichtshoff* applied an

[39] See DG Competition Staff Discussion Paper on the Application of Article 82 EC to Exclusionary Practices, text available at http://ec.europa.eu/comm/competition/antitrust/others/discpaper2005.pdf. See also comments received on the Discussion Staff Paper, available at http://ec.europa.eu/comm/competition/antitrust/others/article_82_contributions.html.

[40] *SAEM et NMPP contre le Conseil de la concurrence*, decision of the Cour d'appel de Paris of 12 January 2004, text available at http://www.finances.gouv.fr/DGCCRF/boccrf/04_05/a0050035.htm.

[41] *Commission Guidelines on the application of Article 81 of the EC Treaty to technology transfer agreements*, OJ C 101 [2004].

approach similar to what I just mentioned, i.e., granted a licence based on the German Competition Act in a situation of a barrel standard case:[42] the chemical industry introduced a standard on barrels for exporting chemicals, and the owner of the patent for this particular type of barrel refused to license to certain competitors, so basically, it was a discrimination case.

Let us look closer at the theory of complementarities: of course, there is the idea of the complementary goals of the two fields of law, but maybe what is more important is that we can understand IP rights as an integrative and necessary part of a competitive market, so that competition is in need of IP rights. What is the function of this? Here I would refer to Hanns Ullrich,[43] who made a very important distinction between competition by imitation and competition by substitution. IP rights exclude imitation, and this might mean a loss in allocative efficiency, but they promote substitution, and this may mean gains in dynamic efficiency. I do not like very much the notion of innovation, because as we saw in the *Magill* case, not all IP rights are about innovation. In the dynamic efficiency approach, we can distinguish between two effects: first, we hope that the IP system triggers competition for markets: firms will develop new products and cover new markets. Second, it is hoped that firms will contest existing markets by introducing substitutes to the former technologies or goods. Lawyers are interested in cases that create problems. Competition law reacts to those cases that restrict competition. Hanns Ullrich mentioned before that maybe there are cases showing that the IP system has some inherent problems, while in other cases we see external market failures.

This distinction between three different categories of cases gives you an idea of the problems we run against when applying competition law to IP. The first category of cases is the *Magill* scenario: legislators or registration offices define the scope of protection so broadly that competition by substitution is excluded as such. I think that the *Magill* case is not necessarily about a one-star IP right. The problem of *Magill* was that, by granting copyright protection for information, competitors who needed this information were not able to compete. The basic problem was of the IP system—copyright law is not thought to give protection for information. We have a similar problem in the field of database protection. External market failures are different. Rochelle Dreyfuss talked yesterday about standardization, lock-in effects and network effects. The issue in *IMS Health* was a standardization situation. There were network effects, and here it is not the IP system that excludes competition by substitution, but there are external

[42] Bundesgerichtshof (BGH) of 13 July 2004, (2004) Gewerblicher Rechtsschutz und Urheberrecht 966—*Standard-Spundfass* = (2005) 36 IIC 742—*Standard Tight-Head Drum* (English translation).

[43] Ullrich H. (1997): "Gewerblicher Rechtsschutz und Urheberrecht im Gemeinsamen Markt", in Immenga U. and Mestmäcker E.-J., eds., *EG-Wettbewerbsrecht, Kommentar*, Vol. I, Munich, C.H. Beck, pp. 1101–1014.

reasons. Obviously, these are the scenarios in which competition law is most needed and useful, because we cannot capture those problems by changing the IP system. However, there are also mixed cases, where the IP system might grant very broad protection, although it is foreseeable that substitution will not in any event be possible because of external market failures. Right now there is an interesting debate taking place in Europe on whether we should exclude design protection for spare parts. I would argue this is an example for this third category of cases. Granting patents for DNA sequences without limiting the claims to certain functions, or patent protection for incremental innovation in the software industry, might be additional examples of this problem.

Now, let us look closer at *IMS Health*, which seeks to deal with all those different cases where we might find problems. Actually, I think there is a possible interpretation of this judgment based on the distinction between imitation and substitution. The Court might have said that Article 82 EC can only be applied if the licence will enable competitors to substitute. However, it will not be allowed to use Article 82 EC to enable competitors to imitate. So, mere gains in allocative efficiency do not justify a duty to license. My critique is that, with this approach, one can only capture the first group of problems, and not the second, because in the latter cases competition by substitution is not possible by definition, so the issue that arises is whether we should apply Article 82 EC in order to actually allow imitation. This is a very intriguing question. When the ban harms the competitive process, firms compete for markets—this was actually the argument in *IMS Health*, where the defendant claimed that, if it knew it would have to grant a licence, it would not have invested in the first place to develop the system for exchange of information for the sale of pharmaceutical products.

Now let us look at the two national cases I mentioned before, the French and German cases.[44] As I said before, in the French case, the court applied a clear essential facility doctrine—the case was very similar to *IMS Health*; it did not require a new product. The reasoning of the French court was that there was no clear analysis of whether there were network effects. So the essential facility doctrine does not explain why we should intervene and whether there is a real problem with the IP. The German *Bundesgerichtshoff*, in a very interesting judgment[45] issued after the coming into force of Regulation 1/2003, did not apply EC law, but only German law, and the *IMS Health* judgment was only cited once, without getting into the details of that judgment. The German court granted a compulsory licence, and the justification for this measure was that the patent-holder would gain more without having to sustain competition by substitution. My critique is that the court did not really get into the real issue, i.e., when competition law enables

[44] See *supra* nos. 40 and 42.

[45] See *supra* n. 42.

competitors to imitate. I think it is a problem of how you look at IP: whether it is seen as a clear property right, or only as a tool of market regulation.

To conclude, I think this theory of complementarities, as recognized by the Commission in the licensing field, can also contribute something to the analysis under Article 82 EC. I would argue that we need a more economic approach than the one developed in the *IMS Health* case, which is not appropriate for dealing with all the problems that emerge in this field. In my opinion, imitation should be allowed: maybe we have a loss on the side of dynamic competition when firms compete for markets, but we can catch up on this problem by taking it into account when measuring royalties. Royalties must ensure sufficient incentives for firms to compete for markets, and then the market should be opened by compulsory licences. In drafting the Article 82 EC guidelines, the Commission would face problems, because how can one justify such an approach and at the same time respect *IMS Health*? But considering the current situation in the EU, perhaps *IMS Health* is not that important—the Member States and their courts are allowed to develop their own approaches, and we saw that the German court did not care about the ECJ judgment in *IMS Health*. I think this is a good approach, because we need regulatory competition in this field. EC law is not yet settled, and national law can contribute something to its development.

► Frédéric Jenny—When I made my remarks about the parallel between the free movement of goods and the relationship between IP and competition law, I had not yet read the written contribution of James Venit. But there is a question that has been bothering me for years: this new product rule, or "almost essential facility" status, for IP rights, is a very good reconciliation between competition law and IP law. I think we can also see that *IMS Health* and the German case mentioned by Josef Drexl suggest that competition authorities sometimes misread the new product rule, because they think that just because you find an essential facility, that gives you a right to compulsory licensing of the IP right, by a sort of reference to *physical* essential facilities, and even a telecoms type of specific regulation. This reasoning ignores the free-rider element. My question is: if we accept propositions 1 and 2, what do we do about the *Commercial Solvents* paradigm?[46] That is not a free rider, but someone with whom the essential facility owner happens to have been dealing. Should competition authorities decide that, when someone stops dealing, this should somehow be squeezed out of the exceptional circumstances rule because of our concerns with the free-riding situation? Is there room for a second paradigm in the exceptional circumstances category, which would allow for the *Commercial Solvents* type of scenario?

[46] Joined Cases 6/73 and 7/73 *Istituto Chemioterapico Italiano and Commercial Solvents* v *Commission* [1974] ECR 223.

▶ IAN FORRESTER—Some comments about *Magill*[47] and *Microsoft*.[48] As to the *Magill* case, I do not want to stand up for the broadcasters, but I think it is useful to point out the difference between the listings that were at stake, which the national court found were the fruit of skill and expertise in the arrangement of a TV programme—probably true—and the second phenomenon, the magazines of the individual broadcast companies. The BBC magazine, called Radio Times, was the best selling in the UK, and the BBC wanted to keep that an excellent magazine. So, we should not assume the TV guides that were published by the company to be the same as the TV listings.

Next, in order to make the debate useful, I would like to explain, I hope faithfully, some of the criticism made against Microsoft. The case relates to operating systems, which are the "engine" of computers, and more specifically, to server computers, which organize computer networks to do e-mail, filing, etc. It is not principally about the PCs. There are two issues with respect to servers: first, a wish that servers made by company X can talk successfully to a server using the Microsoft operating system. It is agreed they can talk, and they do talk, but there is dispute about how successful that is. The second issue is: should Microsoft endow or volunteer information to competitors who want to build a server that will function in a Microsoft environment? In other words, to take out the Microsoft server and put in another server. To do that, Microsoft would have to give to the competitors certain information. A request for a broad scope of information was made in 1998. Eventually, the remedy was much narrower: it obliges Microsoft to deliver a complete description of how its servers communicate with each other, under licence, to its competitors. Microsoft argues that this is secret information; the Commission replies it should not have been secret in the first place. Seven thousand pages of documentation have been drawn up. Microsoft argues that the information is covered by patents, and the Commission replies that, if the patents are valid—but we do not know whether they are—then the licensees could maybe work around those patents and build this technology without using them. To the extent that trade secrets are present, they have a lesser level of importance than copyright or patents, and therefore competition law may more properly override trade secret claims than patent or copyright claims. So, there are factual and legal disputes about the status of what Microsoft is ordered to do.

▶ ROCHELLE DREYFUSS—I am left in a confused state: on the previous panel we heard about what can be done when dealing with mergers, and the amount

[47] See *supra* n. 33.
[48] See *supra* n. 35.

of detail of the antitrust analysis—for example, differentiating between different kinds of patents, etc. Now I am thinking, why is it so much harder to think about the same issues in the context of refusal to deal? It seems to me the latter analysis should be much easier, because you often know what exactly the product involved is, what line the frustrated licensee would like to pursue, and what the licensor is or is not doing. In some of these cases the licensor is clearly not pursuing a certain line that the licensee wants instead to pursue, not even always because they think the product will be competitive or superseding—it is just that the licensor wants to preserve that piece of the market for the future. So it seems that these are very easy cases on the question of the relationship between the refusal to deal and the products to which the consumers would enjoy access, and between the products and incentives to innovate. I take the point that the remedy issues are difficult, but that is also true in a merger context. Finally, a comment to Josef Drexl: I do not think that the problem is that these information products are protected by the patent system, but part of the new reality. The new products are information-rich, and this is not a failure of the system—whereas *Magill* is a failure of the EC system, in my view.

► Hewitt Pate—I think that the attempt to create a matrix would probably be of very little help at the end of the day. My personal belief is that a relative increase in the government forcing people to share will in time lead to less innovation and less economic growth. But if we are going to attempt to create the matrix, we need to be clear about what we are talking about. One thing to keep in mind from the outset is that, if you take away the IP right protection and allow imitation, there will always be a short-term gain which is much easier to measure than what happens with long-term innovation.

As to the specific parts of the matrix, I think we should be more rigorous about what we mean on this one- versus five-star rights distinction. Does it simply mean whether there is a real and proper use of the IP system, and the right asserted is protecting the proper thing? *Magill* is very offensive because it is an attempt to use copyright, which has a limited duration, to protect an idea, as opposed to what a copyright is actually supposed to do, which is to protect a single expression of the idea, which may be expressed in many alternative ways (and in the paradigm case very clear and available to all users). On the other hand, if you have a patent or a trade secret that does meet all the tests that the IP system sets for that type of IP, it may be very dangerous to argue that competition specialists can come in afterwards with tests of innovativeness that are divorced from any category in IP law. You might say that trade secrets are somehow of less weight than patents; on the other hand, the one thing about trade secrets is that they are not rights created by the government in the first place, so it might be even more offensive for the government to step in and oblige disclosure.

Do we mean instead whether things are valuable? I do not believe that works very well. Clearly, if a TV viewer finds all programmes in one guide instead of buying separate ones, this is really valuable. Maybe we mean it is just not very clever—like it was in *IMS Health*, where it does not seem very clever either to have devised that product, but it does have a value on the market.

Then: what exactly is meant by something more than the mere refusal to deal? It means some restrictive conduct by the IP holder in addition to the refusal to deal. In respect to *Trinko*, the idea of degrading the service is something more than a mere characterization. The claim was about denial of service, and a subsidiary part of it was that the service was not as good as it should have been. I do not think there is any additional description there, maybe all that is a search for intent, as a way of putting a pejorative label on the conduct. This is the 9th Circuit's approach in the *Kodak* case.[49] The *IMS Health* set of standards is different: it does not point to different behaviour, but to the consequences of a simple refusal. Sometimes they might be so bad that we are not willing to put up with them. One of the things we care a lot about is the prevention of new/novel products through the exertion of a blocking market position, particularly if the position is maintained in time through rights that are not going to expire. There seems to be consensus on the fact that we should address cases where firms sit on IP rights without exploiting them. Prof. Ehlermann is right, there will be a tension to license. I do not think personally that this is the way to have decisions about economic effects on competition, but if you look at actual cases, someone tells a story about not having been given access to a licence or a joint lift ticket scheme. This evokes a very basic human idea, that taking away something that someone had is much worse than never giving it to him in the first place.

On the idea of using a broad essential facility concept, to grant access to the IP any time that it is essential, and then take care of the incentives problem by just hoping that someone will set the right royalty . . . to me this does not make sense. We would thus rewards at best as a paradigm what we think we should encourage, the essential pattern that expresses the commercially valuable new product, and then turn around and say that is the very patent that is denied to the very owner and given away through some imperfect attempt to settle a royalty. My prediction for the innovation consequences of that would not be very positive.

► Mario Siragusa—I think sometimes we get too involved in the subtle distinctions between the various cases, but we should also seek to see what these cases have in common. In this sense, the imitation/innovation test is very good. I would distinguish between cases where the refusal to grant a

[49] *Image Tech. Servs. v. Eastman Kodak Co.*, 125 F.3d 1195, 1218 (9th Cir. 1997).

licence has an effect on innovation which is, either totally or to a large extent, outside the scope of the IP right (and that is why I think leveraging is still a fundamental feature of the case law) and cases where innovation is within the scope of the IP right. Many cases, including *Microsoft*, are cases in which the effect of non-disclosure, or non-licensing, may be outside the scope of the IP right—that is, for the operating system in this case—and the effect of the licence will be more in the server market. In a sense, *Magill* is similar: the effect of the refusal to license was in the market for magazines, which was to a large extent outside the scope of the IP right. I think that in all these cases the EC Court took for granted that there is a proper IP right; otherwise, the judgments become meaningless. So I do not believe in this one-star versus five-star IP right distinction.

I think the Court has always been influenced by the question regarding the scope of the IP right: is the effect of the refusal to license within, or outside it? In *Volvo v. Veng,* the Court was very clear, stating that the refusal to deal is not an abuse unless there is more complex abusive behaviour. When the effects are outside the scope of the IP right, the Court is more willing to entertain limitations of the right. For me, *Microsoft* and *Magill* have in common the fact that the main effect of the refusal to license is outside the scope of the IP right. *IMS Health* is somewhere in between . . . and I do not agree with Eleanor Fox; it is not true that there was no loss—the IP right also resulted in some work done by the holder to shape and bring up to date the composition of those blocks. It was not simply copying those postal codes and applying them. I think here the effect of the refusal was clearly within the scope of the IP right, because the prospective licensee was doing a copy, or something very similar to what the holder did.

Again, I think that this simple approach is probably more helpful, because otherwise we lose track of what the ECJ is really doing. I find there is more difficulty with respect to the category of innovation within the scope of the IP right. There, we have an interesting sort of *obiter dictum*, and there was even a comment on a pharmaceutical case, *Lederle-Praxis Biologicals,*[50] in which a refusal to grant a licence was not deemed to be abusive by the Commission, even if it was a new product that the licensee wanted to bring on the market, where the IP right holder was *planning* to introduce the product. I think this is the only case in the EC where the prospective licensee was trying to bring in a new product that was within the scope of the IP right, and the Commission found there was no abuse simply because the holder was reserving that application for itself and was going to enter the market. There may be some room for abusive behaviour even when the prospective licensee wants something which is clearly within the scope if the IP right, if indeed the IP right holder does not want to make use of that. There is nothing revolutionary about this position.

[50] See European Commission (1994): *24th Competition Policy Report*, para. 353.

▶ Claus-Dieter Ehlermann—Coming back to the different ECJ approach to free movement cases, on the one hand, and antitrust on the other, I think the answer is very simple: the rules on free movement are of a constitutional nature, whereas EC competition rules, at least in the beginning, did not have the same importance in the EC legal order. Second, I sympathize with James Venit, and think he describes the state of EC law correctly in saying that the new product rule is particular to IP cases. Where I am tempted to disagree is that the leveraging issue has gone away. I think that issue is blurred in *IMS Health*, whereas the new product rule is very specifically formulated. I think *Magill* was decided before the essential facility doctrine emerged, and therefore we have no reference in it. *IMS Health* was decided when the essential facility doctrine was very much *en vogu*e in Europe, and therefore there are references to it. One can discuss whether it is right or wrong, but it is a historical development. In *Microsoft* we have the same situation with respect to the essential facility doctrine. What I think will be decisive for the *Microsoft* case is whether the "new product", as explained in *IMS Health*, will be taken literally, or whether there will be a variant to the new product, which is either the new product in terms of *functionalities* (where servers produced by the others will presumably be different from those of Microsoft), i.e., will that be sufficient to fulfil the requirement of the new product—or is it another doctrine about innovation, if we balance the innovative loss on the side of Microsoft with the innovative gain for the rest of society. The specific feature of the IP cases is the debate about innovation, while normally for physical essential facilities the debate is about competition effects only.

▶ Gustavo Ghidini—In my view, it is not necessary to establish an abuse only where the refusal to license involves leveraging by the IP owner of its dominant position on an upstream or downstream market. In *IMS Health,* the relevant IP right was exploited on the very same market from which the competitor was excluded, and on which it claimed to enter with a new product. It seems to me that the EU approach is less strict (i.e. more pro-competitive) than the dominant US approach, which seems to require leveraging—although there are commentators in the US, including Robert Pitofsky, who argue that the application of the essential facility doctrine does not require market leveraging. By the way, I think that in *Trinko* the market was just the same—the local loop—hence the reason for not imposing access was not the non-existence of an upstream or downstream market. So, I ask myself: what is the reason to require that competition be protected only if the dominant position is leveraged, and not if the exclusion occurs in the same market, provided that access is granted on a licence basis that is satisfactory for the IP owner (meaning that free riders do not pay, of course and that a licensee is not a free rider)? The aim of competition law is directly to keep the market open, and when it intervenes *on* an IP right, in reality it intervenes in a market situation that has developed around the IP right and is characterized by the foreclosure of competitors, which is not typical of the simple owning of a patent.

► SIMON BISHOP—Picking up on Hewitt Pate's last comment on prices, during the debate I had the impression that this issue was like the big elephant in the room which everyone was trying to ignore. The issue is: if we are going to issue a decision that mandates access, on what terms is that licence going to be granted? Going along the lines that Eleanor Fox developed, if there is no impact on innovation, then let us just grant the licence for free: if it does not have any impact on dynamic incentives, the short-run optimal price is zero. That is, in a sense, the easy solution to the problem. But as soon as you accept that there is an impact on innovation, determining on what terms to grant the licence becomes difficult. When we talk of impact on consumers, what consumers do we have in mind? Only those active on the particular market, or are we talking about society as a whole, as there may be adverse impact on dynamic efficiency? Trying to address that question even in theory is extremely complex, almost impossible. This brings me back to a question asked yesterday, about whether royalties can be excessive. The answers we got yesterday to that question were either "we do not believe in excessive royalties" (or rather, "we do not believe in compulsory licensing where we think it has an impact on innovation") or the other answer, which was a complete fudge. If we are going to have compulsory licensing, unless we have some serious ideas about the terms on which those licences should be granted, then it's better to back away.

► BENOÎT DURAND—First, I do not think we should exclude that IP rights can be used strategically. I find it dangerous to place IP rights under an untouchable umbrella. Having said this, I do not mean that we should go after IP rights every time we see a problem. What I will say is not in my official capacity, but my personal view. We hear a lot about the essential facility doctrine. It seems to me, not being a legal expert, that a lot of this is form-based, and does not really address the specific conduct of a firm which may possibly harm consumers. I wonder whether this doctrine will give us the solution as to whether there is a competition law problem or not, because it seems to me that it is used like a check-box: if this condition and the other are fulfilled, then we have a case. I do not mean to say that the conditions are totally unrelated to the economic content, but I think they do not address the real issue. If we are going to bring a case in a situation involving an IP right, like in any other case involving property, we will have to have a clear case about why there is harm, substantiated by facts and data. This brings me to the *Microsoft* case: I do not want to stir the debate on this, but as I was somewhat peripherally involved in this case, I believe that the Commission tried to describe why there was a competitive problem, and how Microsoft's conduct was harming consumers. This case is a bit different than the usual Article 82 EC case: it seems to indicate that the Commission is taking a new direction, that of showing why a particular conduct is problematic. It is clearly a difficult case—it is highly technical, and required a lot of expertise—but the Commission would not have pursued it unless it was certain that there was a problem.

► DOUGLAS MELAMED—I want to go back to Eleanor Fox's question about the effects of a duty to deal on innovation, and the presumptions involved in the analysis. I share the views of Hewitt Pate and others here, that we have to be very careful about the overall effects of the legal system on the innovation process. While I think that Hewitt Pate and James Venit are probably right as a predictive matter, in the sense that in the future the law is probably going to evolve around their checklist of factors, it also seems to me that this kind of *ad hoc* approach, including the one outlined by Eleanor Fox in her intervention, is a very unwise path to take as a normative matter. First, I do not think that the institutions have the competence to make that kind of *ad hoc* judgment, particularly when it comes to the effect on dynamic incentives to innovation. Second, there will be an inherent kind of reductionist quality about the inquiry: if you ask, *ex ante,* the question of what would the prospect of the duty to deal have done to this particular innovator, you will always conclude that he would have discounted this probability so much so as not to worry that the consequences will deter innovation in the future. If you go in that direction, I suspect you will systematically underestimate the impact on the innovative process of a legal regime in which duties to deal can be rather easily imposed by *ad hoc* balancing of the claims of a frustrated licensee against those of the IP owner.

I completely agree with Benoît Durand, the essential facility doctrine is kind of an "empty suit", for the reasons he mentioned.

I would then suggest a normative approach to duty to deal that, I think, solves all these problems (except the problem of proof, which is difficult). Let me start from the US antitrust concept, according to which, if someone gained a monopoly position through skill, foresight and industry, he is entitled to reap the fruits of that position. That means he is entitled to have monopoly power and to exercise it—for example, in the form of monopoly prices. I believe that this entails an irrefutable legal presumption that the innovation costs of second-guessing or regulating efforts to reap the fruits of success in the long run are too high, and we just do not do it. But this does not mean that the monopolist can do anything with the assets at its disposal, because if he uses them in a way that raises entry barriers, to leverage into a secondary market, or to somehow increase its market power beyond what has been obtained through lawful competition, then antitrust intervenes.

Now, what does that principle mean in the refusal to deal context? I think it means the following: think of a refusal to deal as a make-or-buy decision by the owner of an important, maybe even essential, input to a line of commerce. Let us imagine he is a monopoly car manufacturer who does not hold a monopoly over producing spare parts. He has to take a decision: either buy the parts from somebody else or make them himself. Those decisions are made all the time, and generally we think they are made efficiently. If he has the monopoly on fuel injection systems, he might decide to "sell" it to someone who is a more efficient manufacturer of cars. With IP licensing, it seems to me that things look the same way: ordinarily, the IP owner will have incentives to make an optimal decision about whether to allow other firms to use its inputs. This does not mean that he is home free—and here I disagree with some colleagues around this table. There are situations in which people make a make-or-buy decision for anticompetitive reasons. A good economics article by Joe Farrell[51] demonstrates situations in which the one monopoly profit theory does not work, and identifies there may be incentives to exclude a competitor—for example, the car manufacturer may think he is not very good at making spark plugs, but he does not want them being made by someone else, because that would facilitate entry by the spare part company into the car manufacturing market, so he will engage in an unprofitable strategy of not buying the spark plugs and, instead, marking them inefficiently himself.

So it seems to me that the normative way to look at a refusal to deal, whether it involves an IP right or something else, is to see whether this conduct makes no business sense except as a means of gaining additional market share, in other words, it is one unprofitable to sacrifice of in order to achieve the payoff of gaining market power. If the answer is "yes", then conceptually we are in an area where we can prohibit the conduct without worrying too much about the effects on innovation. But if the monopolist is efficiently exploiting the IP right, either by choosing to deal or choosing not to deal, then he is just reaping the fruits of his skill, foresight and industry, and for long-run dynamic efficiency considerations we should not impose a duty to deal.

► Assimakis Komninos—A few remarks on the grades given by Prof. Fox to different gains, etc. I agree that the innovation gains for the Microsoft competitors would be huge. It is because the stakes are high that the innovation gains are huge. But I do not think that this is the issue: I would say

[51] Joe Farrell (2005): *Deconstructing Chicago on Exclusive Dealing*, CPC Working Paper CPC05-053, University of Berkeley, California, text available at http://repositories.cdlib.org/iber/cpc/CPC05-053/.

we would have to compare the short term with the long term, rather than the specific gains over the same time period.

Then an interesting distinction was made (then taken up by Mario Siragusa) between the scope and effects of the IP. I am not sure this approach is very practical. For example, Microsoft is ordered to draw up the specifications and share them with competitors, and not to avail itself of IP protection. So there is definitely an effect on the IP. Now, whether this effect is within or outside the scope of the IP right, I am not sure it makes a difference.

Finally, on the new product rule, which is at the end of the day the floodgate, there is a difference between *IMS Health*, *Magill* and *Microsoft*. In the first two cases the product was specific, we knew what this new product was. In the latter case there is no way to know what the new product is; the emphasis is rather on the process leading perhaps to the creation of new products.

▸ Patrick Rey—I was struck by the fact that, in giving those grades, Eleanor Fox was placing emphasis on innovation. Indeed, in *IMS Health* and *Magill* there was little impact on innovation, but a huge impact on consumers. I believe that focusing exclusively on the impact on innovation would not always lead us to the right conclusion.

On the essential facility doctrine, Douglas Melamed already covered the issues very well. I just wanted to add that, from the economics perspective, the origin of the essential facility—whether it is network externalities, historical legacies, or innovation—makes a difference which should be taken into account.

Finally, on the issue of whether it makes a difference to refuse to give access in the first place, or to give it and then take it back, the latter can probably have some meaning—it may be related to specific hold-up problems. However, I believe this issue belongs more to contract law than antitrust. From the antitrust perspective, apart from the fact that this change may reflect changes of circumstances, and may offer more factual evidence, I am not sure this aspect should be considered relevant when assessing a refusal to deal.

▸ Alden Abbott—Rochelle Dreyfuss made an interesting comment about why licensing remedies cannot be worked up as remedies in merger cases. I think the answer is that there is a conceptual difference: in merger cases, you look at the existing competitors and the elimination of competition that already exists or is about to take place. In cases of unilateral refusal to deal, there is currently no competition, and we want to create it by requiring the owner to license. In other words, merger remedies are consistent with the antitrust notion that if there is foreseeable consumer harm from consummating the merger, either we prevent it, or come up with a suitable remedy. In unilateral refusal to deal cases, it is different, because in fact you are forcing new competition.

Second, a very general observation: Gustavo Ghidini mentioned yesterday the conceptual difference on property between Europe and the Anglo-Saxon model.

► Gustavo Ghidini—What I meant yesterday was that servitudes are part of the property statute, and must not be seen as "an imposition" by the State in other words, the potent paradigm includes the fulfillment of duties when this is considered indispensable for the common welfare.

► Alden Abbott—I believe that there are similar limitations in the common law, so I would not be very sure that the two legal regimes are so different on this. I just wanted to take on this philosophical concept to say that there were a few occasions in American history, for example the case of the Mayflower Compact, where some of our first colonists in New England thought that the way to advance the common good was to allow certain private property but to have collective sharing of the agriculture and other forms of property for the common good. What they soon discovered was that the most productive members of the colony lost their incentive to work hard, productivity went down and they were facing starvation . . . and very soon the Mayflower Compact was dissolved, while greater emphasis was placed on protecting individual rights. This is not the perfect analogy, but it sort of reflects the notion that putting major constraints on the most productive members of society may have some unfortunate social consequences.

► Calvin Goldman—With respect to the question that started our discussion about "new dealing" or free riding and when someone stopped dealing, and also related to Rochelle Dreyfuss' comment about merger cases, in my written contribution I discussed at least two Canadian cases on unilateral refusal to deal: *Canada Pipe*[52] and *Nutrasweet.*[53] In both cases there was a finding of unilateral conduct that—building on Douglas Melamed's comments—had in it either exclusionary, predatory or disciplinary intent or purpose attached to the exercise of a supra-IP right licence-related activity. When that kind of intent is found, it makes it a lot easier for the courts to remedy that kind of conduct. So there is a common theme in unilateral cases which is not very common in merger cases.

[52] *Canada (Commissioner of Competition) v. Canada Pipe* CT-2002-006, http://www.ct-tc.gc.ca/CMFiles/CT-2002-006_0079b_45PWA-2142005-2029.pdf?windowSize=popup.

[53] *Canada (Director of Investigation and Research) v. The NutraSweet Company* CT-89/2, http://www.ct-tc.gc.ca/CMFiles/CT-1989-002_0176a_38IHV-12202004-3351.pdf?windowSize=popup.

One additional comment: we have not talked about the importance, in the international, trans-border environment, of licensing cases and merger cases involving IP rights, and trying to obtain remedies that are, to the extent possible, consistent and not creating "system frictions"—to use Eleanor Fox's phrase. I think that is a very important aspect of this debate—to look at what kind of steps were taken particularly in the cases where a differentiation in the granting of the licence can really generate uncertainty, chequer boarding, a degree of loss of innovation, and even allow the horse out of the barn, so to speak, in an irreversible manner. The enforcement authorities should work together to avoid that kind of international disincentive.

► ELEANOR FOX—There was some misunderstanding as to what I was trying to say. I did not mean to state normative conclusions. Antitrust does not require firms to do everything possible to create the best competition. I am asking: when are we at the borderline of saying that a firm that owns IP has to license it? But then, maybe this is not an antitrust question—Hewitt Pate said earlier that maybe this is a legislative question. My thought was: are we sure enough in the right case that requiring a duty to license has a good possibility of net harm to competition and/or innovation? Should we go forward in that case, or decide not to intervene because there will be long-term harm to innovation? On the other hand, if in certain situations we can confidently say yes, there can be a duty to license will create important positive effects on innovation, we can tackle the facts problem, and I take Rochelle Dreyfuss' point that we ought to go forward.

Douglas Melamed said we need a clear theory of harm, and that was what I was getting to: is there in these cases a clear theory of harm? Second, we need a theory of violation, and Douglas Melamed tackled this brilliantly. I did not address that question, but I agree, the situation Douglas spelled out would be a clear theory of violation in the US law. I think that, in the EU *Microsoft* case, if it had been a question of failing to give interoperability information for a browser, where we know that a browser is a potential platform for challenging the operating system, we could then have implied that Microsoft's incentives were to keep out the competition. If we are comfortable enough to go forward and say, in certain cases like *Microsoft,* that relief will keep a firm from using leverage to block off the market or the competitors from offering a product they could otherwise offer in a market different from the IP itself, then we would start on the road of developing a clear theory of harm and of violation.

► JAMES VENIT—The term "essential facility", which Prof. Areeda called "an epithet in need of limiting principles",[54] should probably only be used when

[54] Areeda P. (1989): "*Antitrust Law Journal*

we talk about railway terminals and dams. It just confuses the debate, because it is pejorative, and we get mixed up when we start to use it in other contexts. Douglas Melamed earlier put the finger on the difference between the European and US approaches: US law prohibits monopolization; European law prohibits abuse of a dominant position. The assumption in US law is that the IP right is not in itself the monopolization: there must be something else. In European law this does not exist, and Mario Siragusa tried to get to that by saying that it is something beyond the scope of the IP right. But if you look at *Volvo v. Veng*, these things were not beyond the scope of the IP right, except maybe for one. Charging an excessive royalty is the monopolist's right to get a monopoly profit. Refusing to supply independent dealers is the monopolist's right to exploit its own IP right. The only thing that might go beyond the scope of the IP right is withdrawing the product from the market in a kind of non-exploitation. We need to think very clearly on these issues, and in some ways the US approach is perhaps sounder, as it accepts the paradigm that we have the IP right monopoly, and until we conclusively decide that it is not furthering the dynamic allocation of resources we should not intervene.

► JOSEF DREXL—I did not make any comments on *Microsoft* in my presentation. There was some allusion to the fact that Microsoft is protected by IP in this sort of situation. This is probably not true, because EC law allows reverse engineering, so access is possible, but it takes longer and it is more costly—this is why the Commission ordered Microsoft to give this information away. So there is no complete exclusion of access to the information by IP law. Reverse engineering is possible in IT. So this is a totally different case from *IMS Health*, and I think the Commission's decision is easy to justify.

A major reaction to Rochelle Dreyfuss: I think we are not too far apart. The problem we have right now is that innovation goes ahead so fast, and IP systems have to cope with new technology. This is a learning process for patent offices, legislators, courts—how to accommodate the new technology within the IP system. This obviously creates the danger that mistakes can happen. Within patent offices, and also before courts, it is much easier to change decisions, whereas the legislators' mistakes become more dangerous. The problem that I see here is that with new technologies based on information we have more network and external effects that exclude substitution, and I am a bit worried about this concept of "exceptional circumstances", because I have the feeling that we will have many exceptional circumstances in the future, so how do we deal with this: is it a quality judgment, or is it an allusion to the frequency, as to how often the courts will be allowed to apply the rules on abuse of dominant position?

If the second interpretation is true, then we will have problems. That is why I tried to analyse the law in different Member States, and I selected only two decisions which I found most interesting, but we will see many disputes before domestic courts in the future.

A reaction to Hewitt Pate: maybe it was true in the past that granting IP promoted innovation in general, but the economic situation has changed, and nowadays granting wrong IP rights may create an adverse effect on innovation. Just look at *IMS Health*: they get a copyright for 70 years after the death of the author, and nobody can enter the market. Is this an innovative undertaking? I doubt it: we need competition in order to have innovation. So the IP right alone is not sufficient; we also need competition. This is why I sympathize very much with Gustavo Ghidini: the major idea in applying Article 82 EC is to keep markets open, also for innovation.

A last remark: look at the *Magill* case. If it had been decided in the US, maybe there would not have been copyright protection in the first place. If there *were* copyright protection, then maybe US courts would have said, "well, this is covered by the fair use doctrine". Maybe in a different legal system we have to take into account the existence of competition law as an inherent limitation to IP: you do not get the IP without competition law; the latter is from the very beginning part of the IP system. With this perspective, we would also apply Article 82 EC differently.

► Hanns Ullrich—To draw a brief conclusion, the debate covered a lot of areas, but we focused particularly on the issues of new technology and innovation, leaving untouched trademarks and abuses that occur in this IP area. The fascinating thing about the climate of this Workshop was that it started with a very heavy confrontation between IP lawyers and competition lawyers, whereby IP lawyers argued for curing the problems of the IP system, and competition lawyers argued that they do not want to interfere. Still, there is the problem of how to deal with the principles related to incentives and property protection and market regulation. Everybody has his own perception, because this is a very difficult area: to see how IP works in a competitive environment, what part of this should be regulated, and what should be free competition?

SESSION THREE

SELECTED PROBLEM AREAS 2

WORKING PAPERS

CONTRIBUTORS:

Panel V: IP and Merger Control

Deborah Platt Majoras
Benoît Durand
James Rill
Jochen Burrichter
Patrick Rey

Panel VI: Abuse of Dominance in Licensing and Refusal to License

Calvin Goldman
James Venit
Eleanor Fox
Josef Drexl

I

*Deborah Platt Majoras**

The Role of Intellectual Property in Merger Review: Recent Cases from the US Antitrust Enforcement Agencies

Merger review is central to the enforcement missions of the Federal Trade Commission ("FTC") and the Department of Justice Antitrust Division ("DOJ"), the federal antitrust enforcement agencies in the United States (collectively, "the agencies"). It is a critical element in the agencies' efforts to promote consumer welfare, and it demands the majority of our staff's time. By now, the statutory standard is well-known: we must determine whether a transaction "may . . . substantially . . . lessen competition, or . . . tend to create a monopoly."[1] Put more concretely, we challenge horizontal mergers when we believe they may, by eliminating a rival, enable the merged firm to restrict output or raise price, thereby reducing consumer welfare. Similarly, we challenge vertical mergers that eliminate a key input, supplier, or customer where doing so may unreasonably foreclose competition—a much rarer occurrence.

As more and more of the value of firms has consisted of intellectual property and human capital, intellectual property, naturally, has played an ever-increasing role in competition analysis. As early as 1996, the FTC reported that globalization and faster-paced innovation cycles were driving businesses to "improve [. . .] their production methods, invest [. . .] in R&D, and actively [seek] intellectual property protection for their inventions in a race to keep up with innovation in their industries and to be first to market."[2] By 2002, the intellectual property rights explosion persuaded the agencies to hold joint hearings on intellectual property and competition policy, hearings designed to gather the views of businesses in the biotechnology, pharmaceuticals, computers, semiconductors, software, Internet and other high-tech industries—as well as academicians, economists, lawyers, and others—about the characteristics and the role of intellectual property, and particularly

[*] Chairman, Federal Trade Commission. The views stated here are my own and do not necessarily reflect the views of the Commission or any other Commissioner.

[1] 15 U.S.C. § 18. The FTC may also challenge mergers and acquisitions under Section 5 of the Federal Trade Commission Act. *See* 15 U.S.C. § 45 (prohibiting "unfair methods of competition").

[2] FTC Staff Report, *Anticipating the 21st Century: Competition Policy in the New High-Tech Global Marketplace,* Overview at 2 (May 1996), available *at* http://www.ftc.gov/opp/global/report/gc_v1.pdf .

patents.[3] Many of the mergers that we review today reflect the increased importance of intellectual property in twenty-first century markets.

During the economic boom of the late 1990's, in which the potential for entry, growth, and success for technology firms seemed limitless, many perceived the antitrust laws as too static to be applied to rapidly moving markets and too stifling to encourage innovation. Indeed, such a sentiment appears to be what led to Congress' formation of the Antitrust Modernization Commission ("AMC"), which initially was directed to explore whether the more-than-a-century-old antitrust laws were well suited to the New Economy. (Congress later changed the mandate to allow the AMC to explore that those issues that the AMC it decided were appropriate.) Such concerns are misplaced, however, because the broad standards of the Clayton and Sherman Acts, as interpreted over time by our courts, are flexible enough to deal with markets as their dynamics change. Further, we evaluate mergers not according to rigid structural rules, but rather with a keen focus on the factual record, which we explore to determine actual competitive dynamics, assisted in those efforts by sound economic theory. Given that our analysis is fact-dependent, it is adaptable to new markets and forms of competition, including those heavily characterized by intellectual property. This is not to say that the characteristics of intellectual property are no different than traditional forms of property; rather, it is to say that those characteristics can and must be taken into account in modern merger analysis.

It is important to emphasize that, in doing so, we do not assume that patents necessarily confer monopoly power. Both agencies stated this clearly in the joint Intellectual Property Guidelines ten years ago,[4] and the Federal Trade Commission made the point again in its report on intellectual property and competition in 2003.[5] Moreover, the U.S. Supreme Court recently held that the presumption that a patent confers market is no longer valid (*Independent Tool Works v. Independent Ink Inc.*, 126 S.C. 128 (2006)).[6] Patents do not always—or even often—confer monopolies. Rather, patents

[3] The FTC subsequently issued a report on those hearings and recommended a number of changes to patent law. *See* FTC Report, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* (October 2003) (hereinafter "FTC IP Report"), available *at* http://www.ftc.gov/os/2003/10/innovationrpt.pdf .

I focus my comments here on the role of patents in merger analysis. Although other forms of intellectual property, such as copyright and trademarks, sometimes play a role, they do so less frequently.

[4] See Federal Trade Commission and US Department of Justice (1995): *Antitrust Guidelines for the Licensing of Intellectual Property* (hereinafter "IP Guidelines").

[5] *See* FTC *IP Report*, *supra* note n. 3, Ch.1 at 9 (October 2003) ("Patents do not always or even frequently confer monopoly power on their owners."), *available at* http://www.ftc.gov/os/2003/10/innovation rpt.pdf. [NB: The Agencies have since reiterated the point in a brief before the Supreme Court in August 2005. *See* Brief of the United States as Amicus Curiae Supporting Petitioners, *Illinois Tool Works, Inc. v. Independent Ink, Inc.*, (S. Ct.) (No. 04-1329).]

confer rights to exclude. Specifically, a patent right permits the patentee to "exclude others from making, using, offering for sale, or selling the invention."[7] But rival technologies may compete with the patented technology. In short, a patented product or technology alone rarely constitutes its own antitrust market. We keep that firmly in mind when we review mergers involving intellectual property, and we do not assume that the acquisition of a patent, or an exclusive license to a patent, will—in and of itself—confer market power. To the contrary, we recognize that a patent may have substitutes, and that the patent and its substitutes may compete with each other.

We also recognize that the nature of intellectual property—and, again, patents in particular—presents challenges in merger review that are not present in mergers characterized by hard assets. When, for example, a firm is not yet using its intellectual property for commercial purposes in the marketplace, just defining a relevant market, let alone determining how competition will be impacted by the transaction, can be difficult. While merger analysis is by its very nature forward-looking and predictive, the agencies must take caution not to speculate excessively regarding the likely ways in which technology ultimately will be developed and marketed, given the speed with which research and development potential can shift in dynamic markets.

A. The Role of Intellectual Property in Merger Analysis

In practice, we apply the agencies' joint 1992 Horizontal Merger Guidelines to mergers involving intellectual property rights, just as we do in reviewing mergers that do not involve intellectual property rights.[8] Understanding of the role that intellectual property plays may be significant in all parts of the Guidelines analysis: market definition, competitive effects, entry and efficiencies.

In reviewing some transactions, the FTC has at times defined a technology market, *i.e.,* a market that consists of intellectual property rights that

[6] See, e.g., *United States v. Loew's, Inc.*, 371 U.S. 38, 45 (1962) ("[t]he requisite economic power is presumed when the tying product is patented or copyrighted"); *Independent Ink, Inc. v. Illinois Tool Works, Inc.*, 396 F.3d 1342 (Fed. Cir. 2005) (holding that a rebuttable presumption of market power arises from the possession of a patent over a tying product), *cert. granted,* 125 S.Ct. 2937 (June 20, 2005).

[7] 35 U.S.C. § 135(a)(1).

[8] U.S. Department of Justice and Federal Trade Commission *Horizontal merger Guidelines* para 0.1 (rev'd 1997) (stating that the "unifying theme" of the Horizontal Merger Guidelines—the Agencies' articulation of the analytical framework for merger review—is to target mergers that "create or enhance market power or . . . facilitate its exercise.").

compete with each other and any close substitutes for them.[9] The FTC's *Dow/Union Carbide* case offers an illustration.[10] The case, which settled in 2001, involved the technologies needed to produce the type of polyethylene that is used in making trash bags and strong, thin, puncture-resistant plastic films. Making these polyethylenes is complex, and at the risk of over-simplification, it may safely be said that the manufacturing process required patented reactor technology and patented catalyst technology. According to the allegations of the complaint, Union Carbide and BP Amoco had developed gas-phase reactor technology,[11] and Dow and Exxon Mobil had developed metallocene catalyst technologies. It was alleged that joint ventures between Exxon Mobil and Union Carbide, and between Dow and BP Amoco, successfully adapted metallocene catalysts for use in gas reactors, it was alleged. Indeed, both joint ventures licensed these technologies to others.

Once Dow entered into the merger agreement with Union Carbide, however, things allegedly changed. Dow terminated its joint venture and refused to license its catalyst technology to BP Amoco, according to the complaint. That prevented BP Amoco from continuing to compete in that market. The complaint alleged injuries to technology markets—including the catalyst technology market—and the Commission sought a remedy that (among other things) required Dow to license its catalyst technology to BP Amoco. The key point here is that it was the market for technology that the merger allegedly affected, and it was, therefore, the market for technology that the remedy sought to restore to the state of competition before the merger.

Another example of merger analysis in a technology markets in merger analysis was the FTC's *Ciba-Geigy/Sandoz (Novartis AG)* case.[12] The merger combined the patents covering the two principal methods of developing and commercializing gene therapies, so that competition in the market for the technology needed to conduct research and development of gene therapies would have been eliminated. The merging parties were alleged to be two of a "very small number" of firms that could bring gene therapy products to market.[13] Before the merger, each of the companies licensed its intellectual property to others who sought to conduct gene therapy research, and indeed could be treated as rival licensors;[14] after the merger, it was alleged, the

[9] See IP Guidelines at para. 3.2.2.

[10] *Dow Chemical Co./Union Carbide Corp.*, FTC Docket No. C-3999 (March 15, 2001).

[11] Dow had also developed a reactor technology that polymerizes ethylene in solution, but most of the relevant reactor capacity called for the gas-phase, not solution, reactor technology that Union Carbide and BP Amoco had. *Dow Chemical Co./Union Carbide Corp.*, FTC Docket No. C-3999, Analysis of the Complaint and Proposed Consent Order to Aid Public Comment at 2-3.

[12] *In re Ciba-Geigy, Ltd.*, 123 F.T.C. 842 (1997).

[13] *Ciba-Geigy/Sandoz*, FTC Docket No. C-3725, Analysis to Aid Public Comment at 3, *available at* www.ftc.gov/os/caselist/c3725.htm.

[14] *Id.* at 6.

merged firm would have a disincentive to continue doing so.[15] Other companies had the facilities and technological expertise to conduct gene therapy research, it was alleged, but without licenses to the merged entity's "unmatchable portfolio of intellectual property assets"—assets necessary to develop and commercialize gene therapy products—they would likely halt their work.[16] As described in more detail below, the parties entered into a consent decree with the Commission that required the licensing of intellectual property to gene therapy researchers and developers.

This was not an uncontroversial decision. One FTC Commissioner expressed doubt at the time about the technology market theory of the case.[17] On the other hand, *BusinessWeek* magazine thought this case was a prime example of sound antitrust enforcement. The magazine's article about our action in this case—entitled "The Trustbusters Get One Right"—stated that "[i]n a knowledge-based 21st-century economy, R&D is a key element of modern-day competition," and that "it's right for trustbusters to ensure that market giants don't corner know-how."[18]

In addition to examining technology overlaps in a technology market, it may also be necessary to examine the relationship between one firm's product and the other firm's licenses. Following its review of the recent Pfizer/Pharmacia merger, the Commission alleged that Pfizer held a seventy percent share of the nearly $100 million market for canine arthritis drugs. Although Pharmacia had no product in that market, it did have a license and supply agreement with Novartis, which had recently entered that market. The Commission alleged that through the agreement with Novartis, Pfizer would have undue control over the product that Novartis needed and access to its competitively sensitive information. To preserve competition in this market, the consent agreement required Pharmacia to renegotiate its license and supply agreement with Novartis to allow Novartis to operate as an independent competitor, rather than as a business partner.[19]

In reviewing mergers, we also examine intellectual property rights to determine whether they pose possible barriers to new entry that might otherwise replace competition lost due to the merger. Consider, for example, the Commission's recent *Cima/Cephalon* case, which settled last September.[20] In that case, it was alleged that Cephalon's breakthrough cancer pain drug, Actiq, had a monopoly in a painkiller market, and that Cima was poised to

[15] *Id.*

[16] *Id.* at 4–6.

[17] See *Ciba-Geigy/Sandoz*, FTC Docket No. C-3725, Separate Statement of Commissioner Mary L. Azcuenaga (stating that she "would be interested in public comment on these allegations").

[18] "Trustbusters Get One Right", *BusinessWeek* of Jan. 20, 1997, available at http://www.businessweek.com/archives/1997/b3510122.arc.htm.

[19] *Pfizer, Inc./Pharmacia Corp.,* FTC Docket No. C-4075 (Apr. 14, 2003), Analysis to Aid Public Comment at 5, *available at* http://www.ftc.gov/os/caselist/c4075.htm.

[20] *Cephalon, Inc./Cima Labs, Inc*., FTC Docket No. C-4121, Complaint, Decision and Order (Sept. 20, 2004), available at http://www.ftc.gov/os/caselist/0410025/040924do0410025.pdf .

enter with a drug of its own because it had a BTCP drug in the Phase III stages of clinical development that was expected to enter the market in 2006 or 2007. The merger would have reduced the number of competitors in the future in that drug market from two to one and undermined generic entry by causing Cephalon to shift its patents to Cima's product prior to generic launch. Thus, while generic entry into this pharmaceutical market could have, in theory, restored market competition, a variety of entry barriers allegedly frustrated that entry. Those barriers included "regulatory, technological, manufacturing, and marketing" hurdles, but the intellectual property barriers (combined with the Hatch-Waxman regulatory scheme) that the FTC staff cited are the most significant for our purposes.[21] It was that intellectual property barrier to entry that the consent agreement targeted. The consent order required Cephalon to license a generic drug company—Barr Laboratories—all of the intellectual property related to Actiq, a move designed to preserve competition in this health care product market by expediting entry of a lower-priced generic version of Actiq.[22] The remedy was somewhat novel because it created a generic competitor to solve the anticompetitive problems raised by a merger of two branded pharmaceutical competitors.

Finally, last year, the FTC closed its investigation of a deal that involved a concentrated market structure, because a detailed analysis of the facts showed that the transaction was unlikely to produce anticompetitive effects and was more likely to produce efficiencies that could accelerate development of a life-saving treatment. The transaction was Genzyme's acquisition of Novazyme. Novazyme was engaged in conducting early pre-clinical studies relating to enzyme-replacement treatment ("ERT") for Pompe disease, a life-threatening disease for which today there is no known cure. Genzyme was the only other company engaged in pre-clinical testing of ERTs. The Commission nonetheless decided to close the case because the facts, viewed through the lens of economic analysis, did not indicate that the transaction likely would reduce the incentives of the merged firm to invest in successful research and development of the drugs. Indeed, Genzyme placed former Novazyme shareholders in positions to substantially affect the research program and agreed to make substantial payments to former Novazyme shareholders if two products utilizing Novazyme technology were approved by the FDA within a set time. One of the shareholders placed in charge of the Pompe program had two children with Pompe disease. The Commission found that the facts revealed that the merger was more likely to accelerate the research and thus the saving of lives. The Commission also found it significant that during the two years since the merger had been consummated, Genzyme had not slowed its Pompe disease program.

[21] *Cephalon, Inc./Cima Labs, Inc.*, FTC Docket No. C-4121, Analysis to Aid Public Comment, at 2, available at http://www.ftc.gov/os/caselist/0410025/040924comp0410025.pdf.

[22] *Cephalon, Inc./Cima Labs, Inc.*, FTC Docket No. C-4121, Decision and Order, available at http://www.ftc.gov/os/caselist/0410025/040924comp0410025.pdf.

B. The Role of Intellectual Property in Shaping Merger Remedies

In devising remedies to anticompetitive transactions, the agencies have long preferred divestitures of hard assets.[23] Generally, when a product is divested to remedy a product market overlap between two merging firms, the straightforward solution is to divest all intellectual property associated with the real property assets. Divestitures of physical assets are clear and relatively easy to administer, and they typically do not require post-merger entanglements between the merged party and the party to which assets are divested. But because our merger work increasingly involves the transfer of intellectual property and other information technology, and because our merger remedies must be directed at replacing the competition lost, we have devised and accepted remedies involving transfers and licensing of intellectual property. While licensing in particular can require post-merger entanglements, they can be minimized through such requirements as fully-paid upfront licenses. In fact, there can be competitive advantages to licensing, because the nature of intellectual property, unlike, for example, a factory, allows more than one party to take commercial advantage of it.

It is important to distinguish between licensing remedies ordered in merger cases and findings of liability in non-merger cases for unilaterally refusing to license intellectual property to a competitor. Consider, for example, the Antitrust Division's 2001 case involving 3D Systems and DTM Corp.[24] That case presented a merger of two of the three firms that produced industrial rapid prototyping systems in the United States.[25] The merged firms' patent portfolios posed barriers to entry in the United States market: foreign firms selling rapid prototyping systems abroad could not compete on U.S. soil without infringing the parties' patents.[26] Thus, to "lift[] the patent entry barriers," the Division reached a settlement agreement that required the parties to license their relevant patents to a third party.[27] This was a sensible way to solve the competitive concerns caused by the merger.

[23] See, e.g., *Ciba-Geigy*, 123 F.T.C. at 895 (Commission statement) (stating that "an injunction or divestiture is often the remedy chosen to resolve competition problems arising from mergers and acquisitions"); *id.* at 899 (C. Azcuenaga, concurring in part and dissenting in part) ("Normally, divestiture would be the remedy of choice"). See also U.S. Department of Justice, Antitrust Division *Policy Guide to Merger Remedies* at III.A (Oct. 2004).

[24] *United States v. 3D Systems Corp. and DTM Corp.*, Civ. No. 01–1237 (D.D.C. 2001).

[25] Rapid prototyping is a process by which a machine creates a three-dimensional prototype or model from a computer design.

[26] *United States v. 3D Systems Corp. and DTM Corp.*, Competitive Impact Statement 1 (filed Sept. 4, 2001).

[27] *Id.* at 7.

This is *not* to say, however, that a single firm's unconditional refusal to license its relevant patents to a third party—standing alone—violates the antitrust laws. The remedy of a compulsory license makes sense in merger review when it restores competition lost to the merger. However, where no merger has substantially lessened competition in the first place—and where the company has done nothing more than unconditionally refuse to license—the agencies have not challenged the conduct and required a license.

1. Divestitures

In the *Pfizer/Pharmacia* case discussed above, the Commission alleged that the market of combination hormone replacement therapies ("HRT") had only three significant competitors, two of which were Pfizer and Pharmacia. The consent agreement between the parties and the Commission preserved competition that otherwise would have been lost by requiring Pfizer to divest all of its rights and assets related to its HRT product, including its intellectual property. The goal of a remedy requiring complete divestiture is to put the acquirer into the shoes of the merging firm, just as this remedy put the acquirer into the shoes of Pfizer and restored competition in the relevant market.[28]

2. Licensing to or from third parties

Divestiture, however, is not always the best means of restoring competition lost due to a merger. In some cases, the more appropriate course is to require a merged firm to license its intellectual property to a third party, rather than to divest it completely. Such a targeted intellectual property license can give a third party the freedom of operation it needs to commercialize a product that replaces competition lost by the merger.

Sometimes, a license rather than a divestiture is the only feasible remedy because the merged firm does not own the key intellectual property; it licenses it from another. In that case, it can only transfer a sub-license and not ownership of the intellectual property. In other situations, a license is preferable to divestiture because the merged company requires rights to the intellectual property at issue to continue selling its own products, or to continue its ongoing research and development efforts. Allowing the merged firm to maintain its ownership of key intellectual property needed for research and development can thus help it achieve the efficiencies it seeks. In the right

[28] *Pfizer, Inc., and Pharmacia Corp.*, No. C-4075 (Apr. 14, 2003), Analysis to Aid Public Comment at 3, available at http://www.ftc.gov/os/caselist/c4075.htm .

situation, a licensing remedy can provide the greatest benefit to consumers by removing a barrier to entry, providing continued competition, and preserving the merger's efficiencies.

The FTC's recent *Cima/Cephalon* case illustrates how licensing can help restore competition lost to a merger while preserving rights needed for the merged firm to compete in the market.[29] As explained above, this merger combined Cephalon, which allegedly had a monopoly in the market for a specialized painkiller, and Cima, which was poised to enter that market with its own drug. The Commission rectified the loss of competition by requiring Cephalon to license its patents to a third party, to expedite entry of a lower-priced generic version of Cephalon's drug. It was necessary for Cephalon to retain rights in its intellectual property in order to continue making and marketing its own product. Significantly, it was a license to patent rights—not a divestiture—that was the best method of restoring the competition lost due to the merger.

The FTC's *Amgen/Immunex* case provides another example of a matter in which licensing was the preferred remedy. At issue were two markets for biologic drug products used primarily to treat rheumatoid arthritis. (The products in the different markets worked by different mechanisms and were used for different purposes.) In both markets, the merger joined the dominant or only firm in the market with one of a very small number of serious would-be entrants. In each market, the consent order restored competition lost to the merger by requiring the merged firm to license key patents to a third party that had a product in clinical trials but that was allegedly blocked by the patents from entering. The license assured the third party that it had the freedom of operation necessary to market its competing product, and it allowed the merged firm to retain the rights needed to pursue development of its own competing products and new therapies.[30]

Likewise, in *3D/DTM,* discussed above, the DOJ opted not to demand that the parties divest themselves of offices, research facilities, manufacturing plants, and other hard assets. All that was needed to restore competition in this case was a license. By crafting the remedy to fit the harm, the Antitrust Division could allow the parties' merger to realize its efficiencies.

This kind of remedy can work well in software cases, as well. For example, in one recent merger case, the FTC complaint alleged that a software company had unlawfully acquired its two rivals in a software program

[29] *Cephalon, Inc./Cima Labs, Inc.*, FTC Docket No. C-4121, Complaint (Sept. 20, 2004), available at http://www.ftc.gov/os/caselist/0410025/040924comp0410025.pdf ; Decision and Order (Sept. 20, 2004), available at http://www.ftc.gov/os/caselist/0410025/040924do0410025.pdf.

[30] *In re Amgen/Immunex*, FTC Docket No. C-4053, Analysis to Aid Public Comment at 2–3, available at www.ftc.gov/os/caselist/c4056l.htm. In a third relevant market in that case, the merger was alleged to unite the only two competitors, and the remedy did not require licensing. Rather, FTC staff sought a consent order requiring one of the parties simply to sell its business in this market to a third party. *See id.* at 1–2.

market.[31] The key asset in this software market was the intellectual property itself, and as a result, the principal relief lay in the firm's intellectual property. Thus, the FTC sought a license to the software, a license that would restore competition by enabling others to sell and license the software in competition with the merged entity.

Another means of achieving largely the same result is to require the merging parties to divest the intellectual property to a third party and to require the third party to license the intellectual property back to the merged entity. For example, in the FTC's recent *Aspen Technology/Hyprotech* case, software company AspenTech acquired Hyprotech, allegedly its closest rival in certain software markets, leaving only one other significant competitor, Simulation Sciences, in the field.[32] Last summer, the FTC reached a consent order that required AspenTech to divest certain intellectual property rights to a third party, but permitted AspenTech to license those rights back.[33] The intent in this case was to allow AspenTech to remain a serious competitor in the market, by allowing it to continue to use the intellectual property rights accomplished.

Like *3D Systems, Cima/Cephalon,* and *Amgen/Immunex,* the remedy sought in the *Ciba-Geigy* case, discussed above, was licensing, not divestiture. Divestiture was believed to be unnecessary: "Competitors already have (to varying degrees) the hard assets, e.g., production facilities, researchers and scientists, needed to compete."[34] Moreover, demanding divestiture of key patent rights would only disrupt ongoing relationships and research and development efforts,[35] and the Commission believed that what was needed to replace the competition lost to the merger was access to the intellectual property.[36] Unlike in those cases, however, the consent order required the parties to offer non-exclusive licenses to critical intellectual property to *all* gene therapy researchers and developers. A majority of the Commissioners believed that "[b]efore the merger, if developers of potential gene therapies were unable to reach agreement with Sandoz to license the ex vivo and associated patents, in many instances they could have worked with Ciba and used other technologies that did not infringe the ex vivo patent."[37] The merger ended that option, by "creating a disincentive for [the merged entity]

[31] *In re MSC Software Corp.*, FTC Docket No. 9299, Analysis to Aid Public Comment at 2 (Nov. 2002), *available at* http://www.ftc.gov/os/2002/08/mscsoftwareanalysis.htm .

[32] *In re Aspen Technology, Inc.*, FTC Docket No. 9310, Analysis of Proposed Agreement Containing Consent Order To Aid Public Comment (July 15, 2004), *available at* www.ftc.gov/os/adjpro/d9310/index.htm.

[33] *In re Aspen Technology, Inc.,* FTC Docket No. 9310, Decision and Order (July 15, 2004), available at www.ftc.gov/os/adjpro/d9310/index.htm.

[34] *Ciba-Geigy/Sandoz,* FTC Docket No. C-3725, Analysis to Aid Public Comment at 6–7.

[35] *Id.* at 7.

[36] *Id.*

[37] *Ciba/Sandoz,* 123 F.T.C. at 894 (Commission statement).

to license third parties."[38] The remedy sought to restore that third-party access by requiring licensing to any interested party. Such a broad licensing requirement is, however, rare.

One challenge common to all cases that call for licensing as a remedy is the problem of entanglements. Remedies that call for running royalties paid by the licensee to the merged firm can create "continuing entanglements between the divesting company and the acquirer[, which] might provide opportunities for information exchange between competitors and interfere with their economic incentives to compete vigorously."[39] Many of the FTC's licensing remedies avoid such entanglements by requiring the patentee to grant a third party a fully paid-up, irrevocable license to the necessary intellectual property, as was the case in the *Cima/Cephalon* matter.[40] In other circumstances, it is appropriate that the patentee be compensated on an ongoing basis for the use of its intellectual property, as was the case in the *Ciba-Geigy* matter, where the Commission's goal was to maintain competitive conditions in which the merged firm continued the licensing practices of its predecessors. As a safeguard against entanglement, the consent order in *Ciba-Geigy* provided for an independent auditor to collect and aggregate the royalty payments, a provision intended to bar the parties from gaining access to rivals' confidential sales data.[41]

C. Conclusion

The explosion in ownership of intellectual property and its value to firms has caused the agencies to closely examine the unique characteristics of intellectual property and its impact on competition. But experience in merger cases involving intellectual property confirms that the analytical framework we have developed for examining mergers is fundamentally sound and flexible enough to accommodate the examination of every kind of property right, including intellectual property rights. It also has driven us to reaffirm, through practice, that although patents may sometimes pose entry barriers, patents do not usually confer market power. And it has ensured that our merger analysis is fact-driven, both in assessing the effects of the merger on competition and in devising remedies.

[38] *Id.* (Commission statement).

[39] *Ciba-Geigy/Sandoz,* FTC Docket No. C-3725, Analysis to Aid Public Comment at 8.

[40] *Cephalon, Inc./Cima Labs, Inc.*, Docket No. C-4121, Analysis to Aid Public Comment at 1 (Sept. 20, 2004), available at http://www.ftc.gov/os/caselist/0410025/040924do0410025.pdf.

[41] *Ciba-Geigy/Sandoz,* Analysis to Aid Public Comment at 8; *Ciba-Geigy/Sandoz*, Separate Statement of Chairman Pitofsky and Commissioners Steiger, Starek III, and Varney (March 27, 1997) at 4 n.14, available at http://www.ftc.bov/os/1997/04/c3725.do.pdf.

II

*Benoît Durand**

Intellectual Property and Merger Control: Review of the Recent Experience under the European Merger Regulation

A. Introduction

The potentially tense relationship between intellectual property rights and antitrust policy has been much debated in recent years.[1] On the one hand, intellectual property rights confer the legal right to exclude rivals. On the other hand, antitrust policy, and in particular merger control, prevents the formation of monopolies. In light of this tension, this article reviews the recent experience of European merger control, and in particular, how intellectual property has been treated under the Merger Regulation in the last five years.

Before examining in more detail the European practice of merger control, it is worth pausing to discuss the objectives of both intellectual property policy and competition policy. The proclaimed purpose of intellectual property policy is to spur innovation and facilitate the dissemination of new technologies. The legal right to exclude not only provides *ex ante* incentives to invest in research and development but also facilitates the dissemination of innovation. Without enforceable property rights, inventors would have less incentives to share their innovation. In protecting one's invention from unlawful duplication, the legal system enables the inventor to sell the rights to use its invention without risk. As a result, licensing enforceable rights is a better means to promote the diffusion of new technology than relying on mere secrecy.

The purpose of merger control is to prohibit transactions that would significantly impede competition and ultimately harm consumer welfare. In

* Member of the Chief Economist Office, Directorate General for Competition, European Commission. The views expressed in this paper are solely those of the author and do not purport to represent any official views of the Europe Commission. I would like to thank Ralph Eissler for excellent research assistance.

[1] For example, the roundtables organized jointly by the US Department of Justice and FTC in 2002 on the interface between intellectual property and competition policy provided a forum where key issues were discussed by lawyers, economists and industry leaders. See also the FTC Report, *To Promote Innovation: The Proper Balance of Competition and Patent Law Policy,* October 2003.

this context, merger control also takes into account the impact of concentrations on the innovation process. If, as a result of a transaction, the newly merged entity, through a greater exercise of market power, would reduce the pace of innovation—or worse, shut down possible avenues for the emergence of competing technologies—then such a transaction would raise competition concerns. In sum, when a merger has adverse effects on innovation, the competition authority ought to intervene. The European Commission Horizontal Merger Guidelines recall that, in applying its merger control policy, the Commission will block deals that deprive consumers of the benefits of innovation.[2] On the other hand, the Guidelines also recognize that a merger may benefit consumers when efficiency gains are realized through the innovation process.

In many ways, the apparent conflict between merger control and intellectual property rights is overplayed. Since innovation, by bringing new products into the marketplace or by lowering the cost of production through improved manufacturing processes and greater productivity, ultimately benefits consumer welfare, the effects of both policies should greatly overlap. Indeed, the two policies appear to be complementary: merger control prohibits concentrations that would negatively affect the innovation process, while enforceable intellectual property rights encourage investments in innovative activities and facilitate the dissemination of new technologies.

In practice, however, some tension may still persist. In many 'high tech' industries, the presence of patents or other intellectual property plays an important role in the dynamic competitive process. When a merger takes place in such an industry, the acquisition of 'critical' intellectual property rights may enable the merging parties to exercise a greater degree of market power for a considerable amount of time. When such competitive concerns arise, rivals of the merging parties will be quick to covet the parties' intellectual property portfolio and favour the licensing of their intellectual property as a remedy. Disputes may arise concerning the strength and importance of some patents or other important pieces of innovation in the competitive assessment, which will eventually determine the nature of the remedy package. The competition authority may then agree to remedies that include the licensing of some of the parties' intellectual property rights to existing rivals, but it will face the merging parties' incentive to narrow the scope of the licensing agreement against their rivals' desire to expand the scope as much as possible.

Arguably, competition authorities are ill-equipped to assess either the validity of intellectual property rights (which falls under the jurisdiction of courts) or their value. Nevertheless, they may have to strike a balance between an immediate impediment to competition and the need to keep the

[2] See para. 8 of *the Guidelines on the Assessment of Horizontal Mergers under the Council Regulation on the Control of Concentrations between Undertakings*, OJ C 31 [2004].

investment incentives of the merging parties and its rivals intact. For example, when a remedy package provides easy and cheap access to the merging parties' technologies, this may deter rivals from investing in competing technologies that would have either provided alternative production processes or new and improved products. Yet conversely, in the case of sequential innovation, such licensing may actually boost innovation further, as it allows rivals to access technologies that enable them to develop new products.

It is fair to say that, in practice, competition authorities tend to focus on the immediate impact of the transaction and remain oblivious of the effect of the merger on innovation, let alone on the incentives to innovate and their impact on future competition. This could be explained by the fact that competition authorities tend to have a clear preference to avoid speculating on the future, and all the more so as regards the distant future. It follows that, even though merger control is supposedly concerned with the impact of a transaction on innovation, only rarely does innovation appear as a prominent theme in a merger decision that raises competition concerns. Although this supposition has not been verified for the recent experience of EU merger control, Gilbert and Tom (2001) have shown that the two American antitrust agencies cited innovation in 17.5% of the mergers challenged between 1995 and 1999 but that, for most of these cases, even if innovation had not been mentioned, the challenge and the remedies would have been the same. Indeed, Katz and Shelanski (2004) deplore the fact that the focus of merger control rests on a static analysis, without considering the dynamic impact of concentrations and notably their efficiency effects. Still, the interplay between innovation and competition remains complex. In this context, assessing the role of intellectual property rights and their impact on competition post-merger is an arduous task that competition authorities may not always wish to undertake.

As discussed above, the interface between merger control and intellectual property remains complex, and while the apparent conflict between intellectual property policy and merger control is vastly overplayed, falling for the opposite conclusion that there is never any tension may be too optimistic, although it cannot be excluded that such tension may be resolved with appropriate remedies.

B. How Often Does EU Merger Control Encounter IP Rights?

The potential for some tension still persists, and although innovation is hardly at the centre of any merger decision, it would be informative to gauge the likelihood of such a conflict. For this purpose, I ask the question of how often EU merger control meets intellectual property rights. That is, how likely is it that merger control may potentially—but not necessarily—conflict with intellectual property rights? A quick review of the Commission decisions of the last five years reveals that intellectual property rights were actually cited in a majority of decisions taken under the European Merger Regulation.

To determine the frequency with which intellectual property rights were involved in merger control, a keyword search was conducted on all Merger Regulation decisions in which the Commission raised serious doubts about the notified transaction. The sample thus included all decisions within the relevant period that were taken after the Commission had opened an in-depth (or "Phase 2") investigation,[3] which means that all prohibition decisions (Article 8(3)) and clearance decisions subject to conditions and obligations (Article 8(2)) as well as full clearance decisions (Article 8(2)) were examined.[4] The Commission does not open an in-depth investigation when the parties submit commitments that eliminate the likely harmful impact on competition that the transaction creates. As a result, the only Phase 1 clearance decisions reviewed were those subject to conditions and obligations (Article 6(2)).[5] All other decisions in which the transaction did not raise serious doubts were simply not reviewed. Finally, the keyword search was also conducted for cases in which the notification was withdrawn in Phase 2. For the latter, because access to the Article 6(1)(c) decision in which the Commission expressed its serious doubts about the transaction was restricted, the keyword search was limited to the Commission's press release, either when announcing of the opening of an in-depth investigation or on when discussing the withdrawal of the notification by the parties.

Intellectual property takes many forms. Some types of intellectual property are registered and they provide some exclusionary rights, such as patents and trademarks. Some other rights arise automatically, such as copyrights, and

[3] The European Commission has the possibility to issue an Article 6(1)(c) decision, in which it present the serious doubts it has concerning the competition problems that the transaction raises. After issuing such a decision, the Commission opens an in-depth investigation.

[4] Only the English non-confidential version of each decision was reviewed. In a few cases, where the English version was not available, the Article 8(2) decision was dropped from the sample. Thus, the following cases were not reviewed: M.2495, *Haniel/Fels*, OJ C 97 [2003]; M.2650, *Haniel/Cementbouw*, OJ C 33 [2002]; and M.3436, *Continental/Phoenix*, OJ C 140 [2004]. In addition, the Article 8(2) decision was not readily available in case M.1641, *Linde/AGA*, OJ C 110 [2002].

[5] The following Article 6(2) decisions were not readily available: M.1684, *Carrefour/Promodes*, OJ C 298 [1999]; M.1747, *Telekom Austria/Libro*, OJ C 19 [2000]; M.1751, *Shell/BASF*, OJ C 142 [2000]; M.1802, *Unilever/Amora-Maille*, OJ C 240 [2001]; M.2002, *Preussag/Thomson*, OJ C 167 [2000]; M.2020, *Metsa-Serla/MODO*, OJ C 256 [2000]; M.3410, *Total/Gaz de France*, OJ C 4 [2005]; and M. 3593, *Apollo/Bakelite*, OJ C 48 [2005]. In addition, the English version of the following decisions was not available: M.1712 *Generali/INA*, OJ C 332 [1999]; M.2059, *Siemens/Dematic/VDO/Sachs*, OJ C 369 [2000]; M.2431, *Allianz/Dresdner*, OJ C 172 [2001]; M.2574, *Pirelli/Edizione/Olivetti/Telecom Italia*, OJ C 325 [2001]; M.2621, *Seb/Moulinex*, OJ C 134 [2005]; M.3322, *Polestar/Prisa/Inversiones Ibersuizas,* OJ C 31 [2004]; M.3354, *Sanofi-Synthelabo/Aventis*, OJ C 66 [2004]; M.3420, *GIMD/Socpresse*, OJ C 265 [2004]; and M.3570, *Piaggio/Aprilia*, OJ C 7 [2005].

some are simply undisclosed information protected by confidential agreements, such as trade secrets. In some countries, the design that refers to the appearance of the product, or part of it, is protected by different rights. The geographical indication of origin is sometimes also considered a form of intellectual property.

Even though the intellectual property field is relatively vast, the keyword search was limited to a few items such as 'intellectual property',[6] 'patent', 'copyright', 'trademark', 'trade secret' and 'know-how'. In theory, the search could be extended to include additional words, but this would not provide a very different outcome, as this choice of words covers the most common types of intellectual property rights. The result of this keyword search serves only to provide a first indication as to how often merger control encounters intellectual property.

A keyword search has obvious shortcomings, and thus the search results will only shed limited light on the role of intellectual property in EU merger control. Such a search is no substitute for a more thorough examination. For example, a decision may discuss the role of software specifically designed to run on some specific computers. But because the decision will not mention any of the keywords, the search will not yield any 'hit', and the decision is thus not recorded as citing any intellectual property rights. Conversely, when a keyword *does* appear, this does not imply that the relevant intellectual property is important or plays any role at all in the decision. For example, in the text of the decision in *Veba/Viag*,[7] the word 'patent' is found once, but it is used only to say that the product at issue has not enjoyed patent protection for some time. Similarly, a decision may mention the word 'patent' when actually there is no patent involved in the case whatsoever. This is the case in the *Lagardere/Natexis/VUP* decision,[8] where the case of generic medicine is used to discuss the delineation of the relevant product market between hard-cover and soft-cover books.

Although the shortcomings exposed above mitigate the relevance of the keyword search, the results should provide a first indication as to how often EU merger control encounters intellectual property rights. The results are summarized in the table presented overleaf and the details of the search are reproduced in the attached annex.

Out of the 121 cases in the selected sample, 80 (or nearly two-thirds) cited at least one form of intellectual property. Dropping the 'aborted/withdrawn' cases and focusing solely on merger decisions, out of the 108 decisions reviewed, 77 (or 71%) mentioned intellectual property rights either in the competitive assessment or in the commitments section. In 51 decisions, or

[6] The word 'intellectual' was also searched on its own. For example, the decision in *Schneider-Legrand* mentions "intellectual and industrial property rights", which is not caught when searching for 'intellectual property'.

[7] M.1673, OJ C 371 [1999].

[8] M.2978, OJ C 102 [2004].

Table 1: Cases reviewed under the Merger Regulation (1 Jan. 2000–25 July 2005)

Type of decision	Number of decisions reviewed	Intellectual Property Rights cited in			
		Decisions	Competitive assessment	Remedies	Competitive assessment & remedies
Article 8(3)	8	6	4	5	3
Article 8(2)	13	6	6	0	0
Article 8(2) (condition & obligations)	32	24	21	19	16
Article 6(2) (condition & obligations)	55	41	20	36	15
Sub-total	108	77	51	60	34
Aborted/ withdrawn	13	3	NA	NA	NA
Total	121	80	51	60	34

47% of the decisions reviewed overall, intellectual property rights were cited in the competitive assessment. And in 60 decisions (55%), intellectual property rights were cited in the section on remedies. Overall, these figures tend to suggest that EU merger control deals relatively frequently with intellectual property rights.

Focusing on the number of hits for each word reveals that ‘know-how’ is the most commonly cited keyword in a merger decision (282 decisions). Then comes ‘trademark’, which is cited in 39 decisions, followed by ‘patent’ in 34 decisions. By contrast, ‘copyright’ and ‘trade secret’ generate very few hits, as they are cited in 17 and 14 decisions respectively.

A trademark is usually a picture or a name that is registered, and it serves to distinguish the goods and services of one producer from those of others. Because the existence of a trademark may sometimes be implied in a decision, the search also used the word ‘brand’.[9] In this case, 63 of the decisions reviewed cite that word. Although not all brands benefit from trademark protection, by and large many do. As a result, when the word ‘brand’ appears in a decision, it is likely that such brand benefits from trademark protection.

[9] I thank Hanns Ullrich for this suggestion.

Although trademarks are an important form of intellectual property rights, the presence of a mark mostly affects the degree of product differentiation and thus the degree of market power held by the mark's owner, whereas it is not an indicator of dynamic competition through the innovation process. By contrast, the word 'patent', a form of intellectual property that is closely associated with the innovation process, is cited in 44% of the decisions reviewed.

Finally and unsurprisingly, intellectual property rights are more frequently cited in the remedies section of the decisions than in the competitive assessment. This is because, when divesting a business division, intellectual property rights are often part of the assets sold to a third party. This last conclusion is mitigated when 'brand' is also considered. In general, 'brand' is mentioned mostly in the competitive assessment, but accounting for this word also increases the number of decisions that deal with intellectual property rights.

When reviewing a transaction that raises competitive concerns, these simple statistics show that, more often than not, EU merger control frequently encounters intellectual property rights. However, a more cautious reading of the decisions reveals that intellectual property rights has been important in only a few decisions and hardly central to any of them.

C. Intellectual Property and the Competitive Assessment of Mergers

1. The Horizontal Merger Guidelines and intellectual property

A horizontal merger may raise competitive concerns when the overlap of the merging parties' products is substantial in the relevant product markets (non-coordinated effect) or when the changes due to the merger facilitate co-ordination between the remaining few firms (coordinated effect). The presence of intellectual property rights will be included in the competitive assessment when these rights hinder existing or potential competitors from totally or partially defeating the unilateral or coordinated effects resulting from the transaction. The Commission would be thus concerned that competitors may not be able to exert sufficient competitive constraints to prevent the merging parties from unilaterally increasing prices post-merger or distorting coordination between the incumbent firms.

This competition concern is expressed in the European Commission Notice on horizontal merger guidelines in two places. In paragraph 36 of the Notice, intellectual property is mentioned as an obstacle that hinders expansion by competitors.[10] And in para. 71.b of the Notice, intellectual property rights are listed as a barrier to entry,[11] which hinders potential entrants from contesting the merging parties' market power.

The focus on a static analysis of the effects of horizontal mergers suggests that whether intellectual property rights are part of the transaction or not would have little bearing on the content of the competitive assessment. Following the Guidelines, when a merger involves the acquisition of intellectual property rights, the Commission will determine whether these constitute a hurdle that may shield the merged entity from competitive pressure from non-merging firms or other potential entrants. However, when the transaction does not directly involve intellectual property rights, the presence of these rights will also be included in the competitive assessment when they hinder existing or potential rivals from competing with the merged entity.

Although the Guidelines seem to suggest that the Commission considers intellectual property rights as only a hurdle for the merging firm's rivals or the maverick firms to defeat the price effect of the merger without any concern for innovation, the reader should not conclude that this will constitute the sole analytical framework through which these rights will be taken into account. The Guidelines focus mostly on the static effects of the transaction, which are well understood in the context of horizontal mergers. In that analytical framework, intellectual property rights may serve as a barrier to entry, and should therefore be accounted for. But the Merger Regulation also makes it clear that the Commission will also be concerned by the impact of the merger on innovation. As a result and when appropriate, merger control may have to assess the role of intellectual property rights in the context of dynamic competition, and how the merger affects such competition.

[10] "Some proposed mergers would, if allowed to proceed, significantly impede effective competition by leaving the merged firm in a position where it would have the ability and incentive to make the expansion of smaller firms and potential competitors more difficult or otherwise restrict the ability of rival firms to compete. In such a case, competitors may not, either individually or in the aggregate, be in a position to constrain the merged entity to such a degree that it would not increase prices or take other actions detrimental to competition. [. . .] Similarly, the merged entity's control over patents (48) or other types of intellectual property (e.g. brands (49)) may make expansion or entry by rivals more difficult." *Guidelines on the Assessment of Horizontal Mergers under the Council Regulation on the Control of Concentrations between Undertakings*, OJ C 31 [2004].

[11] "The incumbents may also enjoy technical advantages, such as preferential access to essential facilities, natural resources (90), innovation and R & D (91), or intellectual property rights (92), which make it difficult for any firm to compete successfully. For instance, in certain industries, it might be difficult to obtain essential input materials, or patents might protect products or processes." *Guidelines on the Assessment of Horizontal Mergers under the Council Regulation on the Control of Concentrations between Undertaking*s, OJ C 31 [2004].

2. The role of intellectual property in practice

A closer look at some past decisions involving horizontal effects show that: (i) intellectual property rights have been treated mostly as barriers to entry in a static analysis; and (ii) only in very few cases have these rights appeared to play a significant role in the competitive assessment. The fact that intellectual property rights have been viewed as hurdles for rivals is illustrated in some of the cases where these rights figure in the competitive assessment of the decision. For example, in its decision concerning the transaction between Bayer and Aventis Crop Science (ACS),[12] the Commission expressed concerns about the horizontal overlap between Bayer's leading product, Imidacloprid, an insecticide of the neonicotinoids class and ACS's Fipronil of the pyrazoles class. In the competitive assessment, the Commission noted the weak competitive constraints exercised by generic manufacturers. Among several factors listed that contributed to explain this weakness, the Commission noted that technical production know-how is often patented and that this constitutes an important competitive disadvantage. Although the relevant products were off-patent, generic companies had to develop competitive manufacturing processes for these products coming off-patent. In addition, the Commission noted that, because incumbents rely on a registered trademark, the competitive position of generic producers *vis-à-vis* the merging parties was further weakened. They had to overcome another obstacle, i.e., brand recognition. In this case the Commission described the competitive environment of the relevant market and included in its assessment the presence of intellectual property that prevented generic competitors from exercising sufficient competitive constraints post-merger.

In its decision to prohibit the transaction between CVC and Lenzing,[13] the Commission expressed concerns that the combination of the two firms would create a worldwide monopoly for the production of lyocell, a staple fiber. Because the merging parties hold the vast majority of existing patents for lyocell production and treatment, it was considered unlikely that any entry would occur in a timely fashion following the completion of the transaction. Without a licence from the parties, any entrant would face a serious risk of litigation. And because of their monopoly position, the parties would have no incentive to license their technology to allow new entrants to compete and take their rents away.

These two cases illustrate how the Commission treated intellectual property rights in the competitive assessment of horizontal mergers. When intellectual property rights form a barrier to entry, i.e., a barrier to access to critical input necessary for the development of competing products or

[12] M.2547, *Bayer/Aventis Crop Science*, OJ C 318 [2001].

[13] M.2187, *CVC/Lenzing,* OJ C 141 [2001].

services, the combination of two pre-existing competitors may raise some competition concerns. Given that these transactions removed part or all of the competitive constraints faced by the merging parties pre-transaction, the Commission concluded that the presence of intellectual property rights along with other factors prevented rivals from defeating the anticompetitive effects of the transaction post-merger.

Although the presence and the acquisition of intellectual property rights may have had an impact on dynamic competition, in general such assessment either was not present in the decision reviewed or it remained relatively modest. For example, in *Bayer/Aventis,* some considerations were discussed touching on dynamic competition. However, by and large, and despite the ostensibly high frequency of references to intellectual property indicated by the keyword search, the role of intellectual property rights has been modest in the vast majority of merger decisions, with some exceptions. For example, in most pharmaceutical cases, the presence of patent protection is given considerable weight, and as is the role of potential competition through the assessment of products already in the pipeline and closer to launch. But often, little consideration is given as to how the acquisition of intellectual property is going to affect future innovation.

Among all the prohibition decisions reviewed, intellectual property rights were important only in *CVC/Lenzing* and, to some extent, in *Tetra Laval/Sidel*, where patents prevented new competitors from entering the market for aseptic machines.[14] In all other prohibition cases, intellectual property rights did not appear to play any major role in the competitive assessment. Similarly, in all Phase 2 cases reviewed a closer examination of the cases reveals that in very few decisions did intellectual property rights play a significant role in the competitive assessment. In only five decisions, intellectual property appears to have been important for the competitive assessment. These decisions are *Air Liquide/BOC*, *Dow Chemical/Union Carbide*, *Astra Zeneca/Novartis*, *Bayer/Aventis Crop Science* and *Promatech/Sulzer*.[15]

3. Vertical mergers and intellectual property

Until recently, and as far as I know, intellectual property rights were given some weight in the static assessment of vertical mergers but were not central to any merger review in the Commission's practice, and considerations on dynamic competition did not feature prominently in any decision. One major

[14] M.2416, *Tetra Laval/Sidel*, OJ C 39 [2004].

[15] M.1630, *Air Liquide/BOC*, OJ C 79 [2004]; M.1671, *Dow Chemical/Union Carbide*, OJ C 321 [1999]; M.1806 *Astra Zeneca/Novartis*, OJ C 143 [2001]; M.2547, *Bayer/Aventis Crop Science*, OJ C 318n [2001]; and M.2698, *Promatech/Sulzer,*OJ C 67 [2004].

exception was the Commission's recent in-depth investigation of the joint acquisition of ContentGuard by Microsoft and Time Warner.[16] ContentGuard is a patent holder in the field of digital rights management (DRM) solutions, while Microsoft sells DRM solutions (licensing patents from ContentGuard in that connection) and Time Warner purchases such solutions. DRM technology consists of software that enables digital content of any type to be transmitted securely over an open network. DRM is already the standard for the online delivery of media content such as music and video.

The Commission expressed concerns that the transaction would give Microsoft control over 'essential' patents (alternatively, the term 'blocking' is often used). The competition concerns arose because access to this intellectual property gave Microsoft the ability to foreclose rival providers of DRM solutions and to further protect its monopoly position on the market for PC operating systems. Acquiring such assets with a veto right on licensing ContentGuard's intellectual property would have enabled Microsoft to foreclose its rivals on the DRM solution markets. The core issue was the extent to which the ContentGuard patent portfolio was 'essential'. Even though the validity of a patent remains uncertain until established by a court, the acquisition of such a portfolio would have given Microsoft additional ammunition to sue its rivals for infringement of intellectual property. The greater risk of litigation would not only have hampered existing rivals but also would have deterred potential entry on the DRM solution market, and would have negatively affected future innovation.

The Commission issued a Statement of Objections, whereupon the deal was abandoned and the parties withdrew their notification. In fact, the deal was restructured: Thomson became a third party, acquiring 33% of ContentGuard, and the parties were no longer required to notify the transaction.

The *ContentGuard* case is probably the only recent case where intellectual property rights were at the core of the competition concerns. The Commission raised objections to the fact that this transaction would allow the parties to control a set of essential patents and thus foreclose existing and potential rivals on many markets.

D. Intellectual Property and Merger Remedies

To clear a transaction, the Commission accepts commitments by the merging parties when all competition concerns raised by the transaction being reviewed are eliminated by the parties' proposal. Divestiture of assets such as

[16] See Press release IP/04/1044 of 25.08.2005, "Commission opens in-depth investigation into Microsoft/Time Warner/ContentGuard JV".

entire business divisions are sometimes required to eliminate the competition concerns. The keyword search conducted in relation to the Merger Regulation decisions of the last five years shows that commitments involving intellectual property rights are usually associated with the divestment of a business unit regardless of whether these rights were mentioned in the competitive assessment or not.

Often, the parties commit to divest whole or part of a business division to eliminate the competition concerns created by the transaction. In general, when a business unit or a subsidiary is divested, all of its assets, tangible and intangible, including intellectual property rights, are sold to a third party. A typical example is found in the *GE/Instrumentarium* conditional clearance decision,[17] where the Commission agreed to the transfer of Spacelab (a division of Instrumentarium) to a third party. The divestiture of Spacelab included the transfer of Spacelab's intellectual property rights as well as the current agreements concluded by Spacelab with third parties as regards technology licences.

In merger decisions involving branded retail products, the divestiture of brands including the trademark rights has also been a commonly proposed undertaking to solve the identified competition issue posed by the transaction. In *Unilever/Bestfood*, the Commission maintained that the transaction risked creating or strengthening a dominant position in various food product markets.[18] After examining the market shares of the merging parties, the Commission based its concern on the magnitude of the horizontal overlap. To eliminate the various overlaps, the merging parties proposed to dispose of several brands with the rights to the registered trademark to a third party. In the *Nestlé/Ralston Purina* decision, the case was very similar, except that it concerned pet food.[19] The merging parties proposed to divest some brands to remove the competition concerns. The same approach was followed in *MasterFood/Royal Canin* and *Barilla/BPL/Kamps,* where the merging parties divested brands with the associated trademark rights.[20] In each case, the right to the trademark was sold with the rest of the divested business. Because the Commission focused on the horizontal overlap between the merging parties' brands, there was no reference to trademarks or their role in the competitive assessment.

The Commission has also agreed to the licensing of intellectual property that was used by the divested business unit prior to the transaction. For example, in its *Alcan/Alusuisse* conditional clearance decision, the Commission accepted the divesture of a business unit and the commitment to grant a license if requested by the buyer concerning the usage of Alcan's

[17] M.3083, *GE/Instrumentarium*, OJ C 54 [2003].

[18] M.1990, *Unilever/Bestfood.*

[19] M.2337, *Nestlé/Ralston Purina*, OJ C 239 [2001].

[20] M.2544, *MasterFood/Royal Canin* and M.2817, *Barilla/BPL/Kamps*, OJ C 117 [2002].

existing technology and know-how in the lamination of aluminium foil for the manufacture of smooth wall semi-rigid containers and the accompanying lids.[21] The Commission found that rival producers were not meeting the quality standard of the merging companies, and as a result the merged entity would face only weakened competitive constraints. The accepted commitments removed this concern, notably by providing third party access to Alcan's intellectual property. The advantage of this type of arrangement is that it still allows the merging parties to profit from their intellectual property without depriving the divested business of such a competitive advantage. In other decisions, the Commission followed a similar approach. In its *Bombardier/ADtranz* clearance decision, the Commission agreed that the divestment business should also be entitled to a non-transferable licence of intellectual property rights, that is, patents, patent applications, trade secrets, know-how and copyrights that are necessarily used by the divested business, but excluded trademarks from the package.[22] A similar commitment was provided by the merging parties in *Degussa/Laporte*, where the parties proposed to divest business units including a licence to intellectual property rights (i.e., patents, patent applications, technology, know-how, including operational know-how, trade secrets, copyrights and software but not trademarks) which were used by the divested businesses.[23] In these cases, intellectual property rights did not figure prominently or at all in the competitive assessment, but intellectual property rights were nevertheless part of the remedy package accepted by the Commission.

The transfer of know-how, innovative production processes or other substantial competitive advantages protected by intellectual property rights may enable rivals to become sufficiently potent to ensure that competition will not be lessened post-merger. The advantage of licensing intellectual property rights is that the patent holder maintains the rights to use its patent as well, and is not deprived from competing using its own assets. This type of remedy can be particularly effective in alleviating the competition concerns created by the merger. However, while this practice has been used by the US antitrust agencies,[24] the European Commission has hardly ever accepted such a stand-alone transfer without further divestments.

One of the rare cases where the Commission accepted this type of undertaking is the recent Phase 1 decision, *Alcatel/Finmeccanica*.[25] In its decision, the Commission accepted a commitment that entailed granting a licence over technologies, know-how and manufacturing processes rather than a divestiture of a business unit. In this case, the Commission had identified competition problems in the TTC (Tracking, Telemetry and Command subsystems)

[21] M.1663, *Alcan/Alusuisse*, OJ C 288 [1999].

[22] M.2139, *Bombardier/ADtranz*, OJ C 63 [2002].

[23] M.2277, *Degussa /Laporte*, OJ C 140 [2001].

[24] See Gilbert and Tom (2001).

[25] M.3680, *Alcatel/Finmeccanica/Alcatel Alenia Space & Telespazio*, OJ C 63 [2005].

equipment and command receivers markets. To resolve the issue, the parties offered to license technologies related to TTC equipment to another existing supplier of space equipment. The purpose would be to transfer a comprehensive technology package that would significantly reduce the cost and effort to develop and manufacture TTC equipment. This solution was preferred to divestment for several reasons. One of them was that the divestiture would prove infeasible because the assets used to produce TTC equipments do not constitute 'stand-alone businesses', and are too intertwined with other companies' assets that did not have a close link with the identified competition problems.

E. Conclusion

The first and main conclusion to draw from this brief review is that intellectual property rights would appear to encounter European merger control very frequently. Based on the result of a keyword search on relatively common intellectual property rights, many Commission decisions cite intellectual property rights. However, a closer examination reveals that these rights often do not play a central role in the competitive assessment or in the commitments section. In fact, in very few cases are these rights part of the central competitive issue. As a result, the risk of conflict between intellectual property rights and merger control, if there has been any, should have been rather limited to a few cases.

In the context of horizontal mergers, intellectual property rights have been treated like any other obstacles when they thwart rivals from exerting sufficient competitive constrain on the merging parties. However, this does not imply that the Commission would disregard the impact of the merger and the role of intellectual property rights on the innovation process.

Annex

Table 1A summarizes the results of the keyword search performed over all merger decision in the selected sample as explained in the text. Every time a word is found by the search engine, the table records the hit as "1", otherwise "0".

Table 1A: List of Merger Decisions citing intellectual property rights.

			IPR cited in		Type of IPR cited					
Case name	Case No.	Decision type section	competitive assessment	remedies section	patent	trade-mark	copyright	trade secret	know-how	brand
ENI /EDP /GDP	M.3440	Art. 8.3	1	0	0	0	0	0	1	1
Tetra Laval /Sidel	M.2416	Art. 8.3	1	1	1	1	1	1	1	1
Schneider /Legrand	M.2283	Art. 8.3	0	1	0	0	0	0	1	1
GE /Honeywell	M.2220	Art. 8.3	1	1	1	0	0	0	1	0
CVC /Lenzing	M.2187	Art. 8.3	1	1	1	0	0	0	0	1
SCA /Metsä Tissue	M.2097	Art. 8.3	0	0	0	0	0	0	0	1
MCI WorldCom /Sprint	M.1741	Art. 8.3	0	1	0	0	0	0	1	1
Volvo /Scania	M.1672	Art. 8.3	0	0	0	0	0	0	0	1
Sonoco /Ahlstom	M.3431	Art. 8.2	1	1	0	1	0	0	1	0
GE /Instrumentarium	M.3083	Art. 8.2	1	1	1	1	0	1	1	1

			IPR cited in		Type of IPR cited					
Case name	Case No.	Decision type section	competitive assessment	remedies section	patent	trade-mark	copyright	trade secret	know-how	brand
Lagardere /Natexis /VUP	M.2978	Art. 8.2	1	1	1	0	1	0	1	1
DSM /Roche Vitamins	M.2972	Art. 8.2	1	1	1	1	1	1	1	0
Verbund /Energie Allianz	M.2947	Art. 8.2	0	1	0	0	0	0	1	1
Daimler Chrysler / DeutscheTelekom /JV	M.2903	Art. 8.2	1	0	0	0	0	0	0	1
Newscorp /Telepiu	M.2876	Art. 8.2	1	1	0	1	0	0	1	1
Promatech /Sulzer	M.2698	Art. 8.2	1	1	1	1	1	1	1	1
Haniel /Ytong	M.2568	Art. 8.2	0	1	0	1	0	0	0	0
Bayer /Aventis Crop Science	M.2547	Art. 8.2	1	1	1	1	1	1	1	1
Südzucker /Saint Louis Sucre	M.2530	Art. 8.2	0	0	0	0	0	0	0	1
Grupo Villar Mir / ENBW /Hidroelectrica del cantabrico	M.2434	Art. 8.2	1	0	0	0	0	0	1	0
Mitsui /CVRD /Caemi	M.2420	Art. 8.2	1	0	0	0	0	0	1	0
Shell /DEA	M.2389	Art. 8.2	0	0	0	0	0	0	0	1

Bombardier /ADtranz.	M.2139	Art. 8.2	0	1	1	1	1	1	1	1
Metso /Svedala	M.2033	Art. 8.2	1	1	0	0	0	0	1	1
The Post Office /TPG /SPPL	M.1915	Art. 8.2	1	1	0	1	0	0	1	1
EDF /EnBW	M.1853	Art. 8.2	0	0	0	0	0	0	0	1
AOL /Time Warner	M.1845	Art. 8.2	1	0	0	0	1	0	0	1
Industri Kapital / (Norekem) /Dyno	M.1813	Art. 8.2	1	0	0	0	0	0	1	0
Aztra Zeneca /Novartis	M.1806	Art. 8.2	1	1	1	1	0	0	1	1
Alcoa /Reynolds	M.1693	Art. 8.2	1	0	1	0	0	0	1	0
VEBA /VIAG	M.1673	Art. 8.2	1	1	1	0	0	0	1	1
Dow Chemical /Union Carbide	M.1671	Art. 8.2	1	1	1	0	0	0	1	0
Alcan /Alusuisse	M.1663	Art. 8.2	1	1	1	0	0	0	1	1
MMS /DASA /ASTRIUM	M.1636	Art. 8.2	1	1	1	0	0	0	1	0
Air Liquide /BOC	M.1630	Art. 8.2	1	1	1	1	1	1	1	0
TotalFina /Elf	M.1628	Art. 8.2	0	1	0	1	0	0	1	1
Sony /BMG	M.3333	Art. 8.2	1	0	0	0	1	0	0	1
Oracle /PeopleSoft	M.3216	Art. 8.2	0	0	0	0	0	0	0	1
Carnival Corporation / P&O Princess	M.2707	Art. 8.2	1	0	0	0	0	0	1	1

			IPR cited in		Type of IPR cited					
Case name	Case No.	Decision type section	competitive assessment	remedies section	patent	trade-mark	copyright	trade secret	know-how	brand
DeBeers /LVMH	M.2333	Art. 8.2	1	0	0	1	0	0	1	1
MAN /Auwarter	M.2201	Art. 8.2	0	0	0	0	0	0	0	1
Framatome /Siemens / Cogema	M.1940	Art. 8.2	1	0	0	0	0	0	1	0
Pirelli /BICC	M.1882	Art. 8.2	1	0	0	0	0	0	1	0
Boeing /Hughes	M.1879	Art. 8.2	1	0	0	0	0	0	1	0
Reuters /Telerate	M.3692	Art. 6.2	0	1	1	1	1	1	0	0
Honeywell /Novar	M.3686	Art. 6.2	0	1	1	1	0	0	1	1
Alcatel /Finmeccanica / Alcatel Alenia Space & Telespazio	M.3680	Art. 6.2	1	1	1	1	0	0	1	0
Cytec /UCB Surface Specialties	M.3558	Art. 6.2	0	1	1	1	0	0	1	0
Bayer Healthcare /Roche	M.3544	Art. 6.2	0	1	1	1	1	1	1	1
Syngenta CP/ Advanta	M.3465	Art. 6.2	0	1	0	0	0	0	1	1
Owens-Illinois /BSN Glasspack	M.3397	Art. 6.2	0	0	0	0	0	0	0	0

Group 4 Falck /Securicor	M.3396	Art. 6.2	1	1	0	0	0	0	1	1
Air Liquide /Messer Targets	M.3314	Art. 6.2	1	1	1	0	0	0	1	1
Air France /KLM	M.3280	Art. 6.2	0	0	0	0	0	0	0	1
Teijin /Zeon /JV	M.3235	Art. 6.2	1	1	0	1	0	0	1	1
Alcan /Pechiney	M.3225	Art. 6.2	1	1	1	1	1	0	1	0
Candover /Cinven / Bertelsmann Springer	M.3197	Art. 6.2	1	1	0	0	1	0	1	0
Procter & Gamble /Wella	M.3149	Art. 6.2	0	1	0	1	0	0	1	1
GE /AFGA NDT	M.3136	Art. 6.2	1	1	1	1	1	1	1	1
Konica /Minolta	M.3091	Art. 6.2	0	1	0	0	0	0	1	1
Pfizer /Pharmacia	M.2922	Art. 6.2	1	1	1	1	1	1	1	1
RAG /Degussa	M.2854	Art. 6.2	0	1	0	0	0	0	1	0
Barilla /BPL /Kamps	M.2817	Art. 6.2	0	1	1	1	1	1	1	1
Telia /Sonera	M.2803	Art. 6.2	1	1	0	1	0	0	1	1
Imperial Tobacco / Reemtsma	M.2779	Art. 6.2	1	1	0	1	0	0	0	1
BP /VEBA OEL	M.2761	Art. 6.2	0	0	0	0	0	0	0	1
Solvay /Montedison-Ausimont	M.2690	Art. 6.2	1	1	1	1	0	0	1	0

			IPR cited in		Type of IPR cited					
Case name	Case No.	Decision type section	competitive assessment	remedies section	patent	trade-mark	copyright	trade secret	know-how	brand
GERLING /NCM	M.2602	Art. 6.2	1	0	0	0	0	0	1	0
NORDBANKEN /POSTGIROT	M.2567	Art. 6.2	0	0	0	0	0	0	0	1
MASTERFOODS /ROYAL CANIN	M.2544	Art. 6.2	0	1	0	1	0	0	1	1
INDUSTRI KAPITAL /PERSTORP	M.2396	Art. 6.2	1	0	0	0	0	0	1	0
NESTLE /RALSTON PURINA	M.2337	Art. 6.2	0	1	0	1	0	0	1	1
YLE / TDF/ DIGITA/JV	M.2300	Art. 6.2	1	0	0	0	0	0	1	0
BUHRMANN /SAMAS OFFICE SUPPLIES	M.2286	Art. 6.2	0	1	0	1	0	0	1	1
DEGUSSA /LAPORTE	M.2277	Art. 6.2	0	1	1	1	1	1	1	1
PERNOD RICARD /DIAGEO / SEAGRAM SPIRITS	M.2268	Art. 6.2	0	1	0	1	0	0	0	1
VIVENDI /CANAL + /SEAGRAM	M.2050	Art. 6.2	1	0	0	0	0	0	1	1
SCA PACKAGING /METSA CORRUGATED	M.2032	Art. 6.2	0	0	0	0	0	0	0	1
FRANCE TÉLÉCOM /ORANGE	M. 2016	Art. 6.2	0	1	0	0	0	0	0	1

Unilever /Bestfoods	M.1990	Art. 6.2	0	1	0	1	0	0	0	1
Volvo /Renault	M.1980	Art. 6.2	0	0	0	1	0	0	0	1
Rexam (PLM) /American National Can	M.1939	Art. 6.2	0	1	0	0	0	0	1	0
BASF /American Cyanamid (AHP)	M.1932	Art. 6.2	1	1	1	1	0	0	0	1
Nabisco /United Biscuits	M.1920	Art. 6.2	0	1	0	0	0	0	1	1
Sara Lee /Courtaulds	M. 1892	Art. 6.2	0	1	0	0	0	0	1	1
Pfizer /Warner Lambert	M.1878	Art. 6.2	1	1	1	1	0	1	1	1
Lafarge /Blue Circle	M.1874	Art. 6.2	0	1	1	1	0	0	1	0
Glaxo Wellcome / Smithkline Beecham	M.1846	Art. 6.2	1	1	1	1	0	0	1	1
Monsanto /Pharmacia & Upjohn	M.1835	Art. 6.2	1	0	1	0	0	0	1	1
Vodafone Airtouch / Mannesmann	M. 1795	Art. 6.2	0	1	0	0	0	0	0	0
EADS	M.1745	Art. 6.2	1	1	1	0	0	0	1	0
The Coca-Cola Company / Kar-Tess Group	M.1683	Art. 6.2	0	0	0	0	0	0	0	1

Table 2A summarizes the results of the keyword search for notifications that were withdrawn after the Commission opened an in-depth investigation. The keyword search was performed over the Commission press releases.

Table 2 A: List of case withdrawn in Phase 2

Case name	Case No.	IPRs cited in press releases	exists a press release "withdrawn"	exists a press release for 6.1.c
AKER MARITIME/ KVAERNER	M.2117	0	1	1
BHP /CAEMI	M.2363	0	1	0
CGD /PARTEST / BCP /SAIRGROUP / PORTUGALIA	M.1646	0	0	1
CRH /ADDTEK	M.2322	0	0	1
FÖRENINGSSPAR-BANKEN /SEB	M.2380	0	1	1
INA /AIG /SNFA	M.3093	0	1	1
INDUSTRI KAPITAL / PERSTORP	M.1963	0	0	1
MICROSOFT / LIBERTY MEDIA / TELEWEST	JV.27	0	0	1
MICROSOFT /TIME WARNER / CONTENTGUARD JV	M.3445	1	1	1
RWA / AMI / INTER-FERT	M.3423	0	0	1
SCHNEIDER / LEGRAND	M.2283	1	0	1
TIME WARNER / EMI	M.1852	1	0	1
T-ONLINE INTERNATIONAL / TUI /C&N TOURISTIC /JV	M.2149	0	0	1

III

James F. Rill and *Penny G. Newman*[*]

Reflections on Enforcement Actions and Statements Concerning Intellectual Property Elements of Merger Review

A. Introduction

There is a fair amount of literature emanating from academics, practitioners, and enforcement officials discussing various aspects of merger review in the United States involving intellectual property (hereinafter IP).[1] Conversely, there is a relative paucity of case law dealing with the issue. Nevertheless, some trend lines can be discerned from existing case law and the agencies' statements revealing certain thoughts and analysis characterizing jurisprudence in this area.

This paper reviews some of the existing case law and statements related to IP aspects in merger cases, and tries to summarize the thoughts and analyses reflected in them. Most of the paper focuses on treatment of these issues in the United States. The last section of the paper deals separately with the parallel notions on these issues as developed under European Union competition law.

B. US Reflections

The following review suggests that an increasingly rigorous analysis based on empirical evidence will be employed before a merger of IP assets will be successfully challenged. The following observations are supported by a review of enforcement actions and statements and cases with parallel analysis.

- Review fits cautiously within the unilateral effects box, i.e. where a merging firm finds it profitable to alter its behavior unilaterally following the

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[1] See, e.g., Chin A. (1998): "Analyzing Mergers in Innovation Markets", 38 *Jurimetrics Journal* 119 (1998); Dahdouh T. N. and Mongoven J. F. (1996): "The Shape of Things to Come: Innovation Market Analysis in Merger Cases", 64 *Antitrust Law Journal* 405; Hoerner R. J. (1995): "Innovation Markets: New Wine in Old Bottles?", 64 *Antitrust Law Journal* 49; and Gilbert R. J. and Sunshine S. C. (1995): "Incorporating Dynamic Efficiency Concerns in Merger Analysis: The Use of Innovation Markets", 63 *Antitrust Law Journal* 569.

acquisition by elevating price and suppressing output,[2] although there is some dispute whether a pure research and development (hereinafter R&D) merger should ever be challenged.

- An IP market may be broader than the "smallest market" paradigm indicates.[3]
- Market share evidence, and possibly market definition, is of lesser importance in these contexts.
- Concrete empirical evidence is required to examine the scope of R&D, R&D in related fields, and the strength and proximity of participants in evaluating whether a merger would limit R&D competition so as to cause consumer harm.
- Industry expert analysis, market performance, and documentary evidence of firms' intentions and capacities are of particular significance.
- Customer testimony is suspect unless based on real life experience.
- There is a tendency by the enforcement agencies to invoke IP licensing remedies rather than to block transactions.

1. Case law and official statements

Limited learning can be derived from existing case law and agency enforcement proceedings and guides dealing with R&D markets.

A threshold point for analysis has been *SCM Corp. v. Xerox Corp.*, 645 F.2d 1195 (2d Cir. 1981), *cert. denied*, 455 US 1016 (1982), which expresses doubt as to competitive concerns arising from the possession of intellectual property in fields represented by high technology and rapidly evolving R&D and suggests that an innovation market cannot form the basis for a merger challenge in the absence of a commercial transaction in the relevant product. However, the Federal Trade Commission (hereinafter FTC) staff has cautioned against such a broad reading of *SCM*.[4]

The 1988 Department of Justice (hereinafter DOJ) Antitrust Enforcement Guidelines for International Operations abandoned the market share test, asserting instead that "the Department would regard all possible comparable R&D to be of equal comparable significance. As a general matter . . . the

[2] On the unilateral effects theory of competitive harm, see generally, US Department of Justice and US Federal Trade Commission (1992): *Horizontal Merger Guidelines*, section 2.2, reprinted in 4 Trade Reg. Rep. (CCH) para. 13,104 (April 2, 1992, rev. April 8, 1997), also available at http://www.usdoj.gov/atr/public/guidelines/hmg.htm (hereinafter US Guidelines); for an economic review thereof, see Coleman M. and Scheffman D. T. (1993): "Quantitative Analyses of Potential Competitive Effects from a Merger", June 9, 2003, available at http://www.ftc.gov/be/quantmergeranalysis.pdf.

[3] See US Guidelines, *supra* n. 3, section 1.21.

[4] US Federal Trade Commission (1996): *Anticipating the 21st Century: Competition Policy in the New High-Tech, Global Marketplace*, at chapter 7, p. 2, n. 6, available at http://www.ftc.gov/opp/global/report/gc_v1.pdf (hereinafter FTC 1996 Report).

Department believes that an anticompetitive effect in an R&D market is unlikely where there are at least four other comparable R&D efforts underway or where there is substantial potential for such efforts by firms or groups of firms included in the market . . . ."[5]

The 1995 DOJ/FTC Antitrust Guidelines for the Licensing of Intellectual Property[6] remained consistent with that position, requiring a focus on the development of new products and an examination of the specialized assets or capabilities of the firms involved. Although the 1995 Guidelines deal with licensing arrangements, the FTC staff notes that this path should be followed in IP merger analysis.[7]

United States v. General Motors Corp., Civ. No. 93-530 (D. Del. 1993)[8] was one of the first, at least somewhat recent, US government agency cases challenging an acquisition, in part, on grounds that the transaction threatened competition in R&D innovation. The case involved GM's proposed sale of its Allison Transmission Division to ZF Friedrichshafen AG, a German company with American operations. Allison and ZF were each other's main competitors in the US market for the manufacture of medium and heavy automatic transmissions for trucks and buses, and both companies engaged in extensive R&D. The Government's suit claimed the proposed transaction would substantially limit competition in three markets that include the worldwide technological innovation in the design and production of automatic transmissions for medium and heavy duty vehicles.

It is interesting that the complaint attempted to assign R&D shares on the basis of the parties' shares in the product market, which was also the target of the government's complaint. Possibly, the DOJ wanted some case support for the forthcoming IP licensing guidelines (support for such hypothesis may be found in the fact that the announcement of the 1995 IP Guidelines indeed cited the *General Motors* case).[9] Finally, note that the technological innovation market was considered on a global basis, suggesting that traditional geographical boundaries may become less relevant where R&D is involved.

[5] US Department of Justice, *Antitrust Enforcement Guidelines for International Operations,* reprinted in 4 Trade Reg. Rep. (CCH) para. 13,109 (1988), repealed b*y* US Department of Justice and US Federal Trade Commission, *Antitrust Enforcement Guidelines for International Operations,* reprinted in 4 Trade Reg. Rep. (CCH) para. 13,107 (April 1995), also available at http://www.usdoj.gov/atr/public/guidelines/internat.htm.

[6] US Department of Justice and US Federal Trade Commission (1995): *Antitrust Guidelines for the Licensing of Intellectual Property*, sections 3.2 and 3.3, *reprinted in* 4 Trade Reg. Rep. (CCH) para. 13,132 (April 6, 1995), also available at http://www.usdoj.gov/atr/public/guidelines/0558.htm.

[7] FTC 1996 Report, *supra* n. .

[8] Complaint, United States v. Gen. Motors Corp., Civ. No. 93-530 (D. Del., filed Nov. 16, 1993), *reprinted in* 6 Trade Reg. Rep. (CCH) para. 45,093, at 44,660 (D. Del. 1993).

[9] Gilbert R. J. (1995): "The 1995 Antitrust Guidelines For The Licensing Of Intellectual Property: New Signposts for the Intersection of Intellectual Property and the Antitrust Laws", address before the ABA Section of Antitrust Law, Spring Meeting (April 6, 1995), available at http://www.usdoj.gov/atr/public/speeches/0167.htm.

2. Agency investigations, settlements, consents

There is a dearth of case-law analysis illuminating DOJ/FTC approaches in IP merger enforcement proceedings. Virtually all cases were settled by consent, and the public record is sparse. Nevertheless, several of the consents support the proposition that a unilateral effects analysis is appropriate with a somewhat murky focus on the competitive proximity of the merging parties and the space between them and other firms exploring or at the fringe of the market.

- *CIBA-Geigy/Sandoz*, FTC Docket No. C-3725, (Mar. 24, 1997).[10] The case involved an enormous $63 billion merger of Ciba-Geigy Limited and Sandoz Ltd. to form Novartis. The merger would have combined two firms with competing products in the Food & Drug Administration (hereinafter FDA) approval pipeline for markets for the research, development, and sale of gene therapy products. Neither firm had a product on the market at that stage. A second concern was that the combined firm's post-merger IP asset portfolio would be so broad that it would give Novartis an "unmatchable portfolio of intellectual property assets that are necessary to commercialize gene therapy products." Consequently, the FTC was concerned that such an extensive portfolio of patents and patent applications could be used unilaterally as a tool to prevent new entry into gene therapy research markets.[11]

  The FTC's decision on the proposed merger included specific licensing remedies compelling the companies involved to offer non-exclusive licenses to either specific companies or any interested person. Note that one of the unique circumstances of the *Ciba-Geigy/Sandoz* case involved an identified product market of "gene therapy technology and research and development of gene therapies, including *ex vivo* and *in vivo* gene therapy."[12] It has been suggested that perhaps the breadth of such a research and development market and the fact that it did not apply to a *particular* product made it somewhat novel[13] which led the FTC to impose such licensing remedies.
- *United States v. Compuware Corp. and Viasoft, Inc.*, Case No. 1:00CV02884 (D.D.C. filed Oct. 29, 1999).[14] Viasoft was a weak competitor as measured

[10] *In the Matter of CIBA-Geigy Ltd., CIBA-Geigy Corp., Chiron Corp., Sandoz Ltd., Sandoz Corp., & Novartis AG*, FTC Docket No. C-3725 (Mar. 24, 1997) (Commissioner Azcuenaga concurring in part and dissenting in part), available at http://www.ftc.gov/os/caselist/c3725.htm.

[11] See *Ciba-Geigy Limited et al.*; Analysis to Aid Public Comment, 62 Fed. Reg. 409, 410–411 (Jan. 3, 1997).

[12] Complaint, Ciba-Geigy, *supra* n. 11, para. 9.

[13] See Azcuenaga M. L. (1997): "Antitrust and Intellectual Property: Recent Highlights and Uncertainties", Address Before the American Law Institute-American Bar Association (April 24, 1997), available at http://www.ftc.gov/speeches/azcuenaga/aliaba97.htm.

[14] *United States v. Compuware Corp. & Viasoft, Inc.*, Case No. 1:99CV02884 (D.D.C. 1999), available at http://www.usdoj.gov/atr/cases/indx201.htm.

by market share, substantially smaller than Compuware. However, Viasoft was the only firm with the technology, IP, and customer confidence potentially to compete with Compuware.

- *Hoechst AG/Rhône-Poulenc*, FTC Docket No. C-3919 (Jan. 18, 2000).[15] This case involved the proposed merger of German-based Hoechst and France-based Rhône-Poulenc (hereinafter R-P) into a new entity called Aventis. The relevant markets included the market for "research, development, manufacture and sale of direct thrombin inhibitors" (used to treat blood clotting disorders). The FTC concluded that Hoechst & R-P controlled the substantial proprietary rights necessary to commercialize direct thrombin products and possessed the technology, manufacturing, clinical and regulatory expertise to successfully take a thrombin inhibitor product to market.[16] (Hoechst was already in the market while R-P was in the development state.) The complaint also alleged the combined IP portfolio of the merging firms could be used unilaterally as an effective barrier to entry into that market.[17]

  In its decision, which did not relate to a confined geographic area, the FTC limited the parties ability to assert certain rights under a specific IP licensing agreement, and imposed various licensing and sub-licensing and know-how revealing requirements aimed at preserving competition in the R&D market.[18]
- *United States v. 3D Systems,* CA No. 1:01CV01237 (D.D.C. filed June 6, 2001).[19] The DOJ was concerned that the merger would have reduced the number of competitors in the US market for rapid prototyping systems software from three to two, with the new firm controlling up to eighty percent of the market. This was feared to eliminate the dynamic competition that existed between the parties to the merger, 3D and DTM, in the development, manufacture and sale of industrial rapid prototyping systems—competition which has resulted in technological improvements to industrial rapid prototyping systems as well as lower prices to companies and governmental entities that purchased them. The possibility of enhanced market power, the exercise of unilateral effects, and the exclusionary effect of the firms' consolidated patent portfolios was key to the DOJ's strong interest in what was, in other respects, a relatively small acquisition. The DOJ also considered the patents in that area when defining the relevant market, noting that patents served as effective barriers which prevented

[15] *In the Matter of Hoechst AG & Rhône-Poulenc S.A., to be renamed Aventis S.A.*, FTC Docket No. C-3919 (January 18, 2000), available at http://www.ftc.gov/os/2000/01/.

[16] Complaint, *Hoechst AG/Rhône-Poulenc*, para. 9, available at http://www.ftc.gov/os/2000/01/hoechstcmp.pdf.

[17] *Id.* para. 16.f.

[18] Decision and Order, *Hoechst AG/Rhône-Poulenc*, paras. II.A, II.C, II.E, II.F, available at http://www.ftc.gov/os/2000/01/hoechst.do.pdf.

[19] *United States v. 3D Sys.*, Case No. 1:01CV01237 (D.D.C. 2001), available at http://www.usdoj.gov/atr/cases/indx303a.htm.

imports into the US Thus, even though it acknowledged that industrial rapid prototyping systems manufactured outside of the US were in some cases less expensive than those made in the US, it found that US customers had not been able to turn to foreign producers because of such patent barriers, which were aggressively enforced by the parties. This provides an example of a case wherein the territorial nature of patents may be used to create legal geographic barriers to entry that do not organically emanate from the nature of the products.

- *United States v. General Dynamics*, CA No: 1:01CV02200 (D.D.C. 2001).[20] The only customer for nuclear submarine parts and technology—the United States Department of Defense—objected to the merger on price and innovation grounds. The complaint concerned itself with the potential elimination of competition in the design, development and integration of various submarine components, some of them utilizing new technology that was still under development. The parties abandoned the transaction.
- *Cytyc Corp./Digene*, FTC File No. 021-0098 (June 24, 2002).[21] Cytyc and Tri-Path were the only competitors in the US market for liquid-based "Pap" tests for the diagnosis of cervical cancer. Cytyc accounted for ninety-three percent of the market. Digene produced a DNA-based pap test, which required the use of Cytyc or Tri-Path's liquid test media to administer.

  The parties abandoned the transaction soon after the FTC's decision to challenge it, and hence a formal administrative complaint was never issued. The FTC's potential complaint in the matter would have alleged that Cytyc's acquisition of Digene was a move against TriPath, that would have eliminated it by limiting access to Digene's test resulting in a dilution of competition between Cytyc and TriPath. Furthermore, it was suggested that such acquisition would prevent entry of other companies that had potential plans to sell liquid Pap tests, as well as eliminate competition between Cytyc's Pap test and Digene's DNA test.[22]
- *Amgen, Inc./Immunex Corp.*, FTC Docket No. C-4056 (Sept. 6, 2002).[23] The FTC concluded that competition in the US market for IL-1 Inhibitor, a tumor inhibitor, would be impacted by a merger of the sole firm with IL-1 on the market and the nearest likely competitor, a firm whose IL-1 product was in clinical trials. The Complaint also alleged that the firms' combined IL-1 patent portfolio would allow the merged firm to block

[20] *United States v. Gen. Dynamics*, Case No: 1:01CV02200 (D.D.C. 2001), available at http://www.usdoj.gov/atr/cases/indx337.htm.

[21] Press Release, US Federal Trade Commission, FTC Seeks to Block Cytyc Corp.'s Acquisition of Digene Corp. (June 24, 2002), available at http://www.ftc.gov/opa/2002/06/cytyc_digene.htm.

[22] *See*, US Federal Trade Commission (1995): *Overview of FTC Antitrust Actions in Healthcare Services and Products* at 28, *available at* http://www.ftc.gov/bc/050802antitrust pharmprods.pdf.

[23] *In the Matter of Amgen Inc. & Immunex Corp.*, FTC Docket No. C-4056 (Sept. 6, 2002), available at http://www.ftc.gov/os/caselist/c4056.htm.

competition by the next likely competitor, which at the time was a hypothetical construct.

- *Baxter International Inc./Wyeth*, FTC Docket No. C-4068 (Feb. 7, 2003).[24] The FTC was concerned that a merger of the two branded suppliers of neuromuscular blocking agent therapies would prevent or delay new entry, with entry further suppressed by the declining use and price of the products. The FTC required a divestiture of technology and IP rights to a third party who would replace the competition lost to the merger.
- *Aspen Technology/Hyprotech*, FTC Docket No. 9310 (Aug. 7, 2003).[25] The merging firms were numbers one and two in a three-competitor market of highly specialized software. Here, too, the relevant geographic market was defined by the agency as worldwide. Customer testimony addressed the value of innovation competition between two firms, and the non-viability of a distant third competitor's product, which lacked customer confidence. The parties abandoned the transaction.
- *United States v. GE/Instrumentarium*, Civil Action No. 03-1923 (D.D.C. filed Feb. 23, 2004).[26] This case involved head-to-head competition between the leading two producers of critical care patient monitors. Customer testimony addressed the perceived innovation benefit that had accrued as a result of the merging firms competing with one another, and asserted the unlikely potential of a distant third competitor to provide the level of competition otherwise lost to the merger. The European Commission also reviewed this transaction, ultimately deciding on a remedy structurally similar to that of the US (divestiture).
- *Sanofi-Synthelabo/Aventis*, FTC Docket No. C-4112 (Sept. 24, 2004).[27] Two colorectal treatments, Sanofi's Eloxatin and Camptosar, accounted for eighty percent of the US market. Aventis did not have a product in the US market or under development, but its extensive IP licensing arrangements with Pfizer, the exclusive marketing agent for Camptosar in the US, raised competitive concerns about diluted competition for Camptosar in US markets. The FTC worked closely with the European Commission's Competition Directorate to coordinate the terms of the remedy with the parties.
- *Cephalon/CIMA Labs, Inc.*, FTC File No. 041-00025 (Aug. 9, 2004).[28] Cephalon's acquisition of CIMA raised concerns about competition in

[24] *In the Matter of Baxter Int'l Inc., & Wyeth*, FTC Docket No. C-4068 (Feb. 7, 2003), available at http://www.ftc.gov/os/caselist/c4068.htm.

[25] *In the Matter of Aspen Tech., Inc.*, FTC Docket No. 9310 (Aug. 7, 2003), available at http://www.ftc.gov/os/caselist/d9310.htm.

[26] *United States v. Gen. Elec. Co. & Instrumentarium,* Civil Action No. 03-1923 (D.D.C. 2004), available at http://www.usdoj.gov/atr/cases/genera1.htm.

[27] *In the Matter of Sanofi-Synthelabo & Aventis*, FTC Docket No. C-4112 (Sept. 24, 2004), available at http://www.ftc.gov/os/caselist/0410031/0410031.htm.

[28] *In the Matter of Cephalon, Inc., & CIMA Labs, Inc.*, FTC File No. 041-00025 (Aug. 9, 2004), available at http://www.ftc.gov/os/caselist/0410025/0410025.htm.

markets for breakthrough cancer pain drugs. The FTC determined that a combination of the only two branded products would likely deter or prevent the creation of a generic market. The remedy created a generic competitor, a somewhat novel remedy but one well suited to the facts of the case. Support for this remedy was not unanimous, with Commissioner Thompson objecting to the substitution of a likely generic entrant for the competition lost as a result of the merger of two branded firms.[29]

- *Itron, Inc./Schlumberger Electricity, Inc.*, FTC File No. 031 0201 (Aug. 10, 2004).[30] Itron and Schlumberger shared ninety-nine percent of the market for handheld electric consumption measurement devices used by the US electricity industry. The devices utilized proprietary communications protocols integral to their interoperability with the electric industry infrastructure. Competitive harm was seen in the exclusionary effect of the proprietary protocols, which were already in place in over ninety-nine percent of the market.

Although these cases center on a unilateral effects analysis of the relationship between the merging parties and, at least in some instances, comparison with other firms R&D efforts, there is little instruction, outside some of the cases involving the FDA clearance process, as to how the agency reached the conclusion that R&D and accompanying innovation would be limited by the transaction, why the parties were the closest competitors for innovation, or why other firms were not equally on track or poised to offer sufficient competitive force. Even cases focusing on firms' positioning in the FDA clearance path do not cite evidence of the firm's commitment to actual effective entry into the product market.

3. Official statements

Past and present enforcement officials' statements reflect an evolution from traditional rigid theoretical premises toward a more fact-based institutional market analysis.

The 1996 Federal Trade Commission report, *Anticipating the 21st Century: Competition Policy in the High-Tech, Global Marketplace*,[31] provided a

[29] Dissenting Statement of Commissioner Mozelle W. Thompson, Cephalon, Inc./Cima Labs Inc., File No. 041-0025 (Aug. 9, 2004), *available at* http://www.ftc.gov/os/caselist/0410025/040809thompsonstmt0410025.pdf.

[30] *In the Matter of Itron, Inc., & Schlumberger Elec., Inc.*, FTC Docket No. C-4114 (Aug. 10, 2004), available at http://www.ftc.gov/os/caselist/0310201/0310201.htm.

[31] FTC 1996 Report, *supra* n. 5 at ch. 7, p. 4 ("This chapter reviews recent agency actions, sets out hearings testimony, and develops some considerations for assessing whether a merger is likely to create, enhance, or facilitate market power so as to lead to consumer harm through reduced innovation competition.").

comprehensive review of new thinking on analytical approaches to R&D mergers, including:

- The need for heightened attention to the problems associated with structural analysis in R&D markets;
- The possibility of over-reliance on traditional market structure giving skewed or unreliable indicators of competitive concern;
- The need for a higher tolerance of concentration levels in R&D markets than might otherwise be acceptable in traditional merger analysis;
- The importance of fact-specific empirical evidence and the challenges that R&D markets pose in extracting it;
- The analytical insight to be gained from the application of empirical evidence to relevant economic models of competitive harm; and
- The need for flexible remedies.

Recent comments by FTC Chairman Deborah Platt Majoras point, to a large extent, in the direction of these points.

On the importance of empirical evidence:

> "[M]ost of the fundamental principles of antitrust law and economics that we have applied for years are equally relevant to even the newest industries. Because our analysis, done properly, is highly fact-intensive, the unique qualities of any product market can be accounted for."[32]

On reliance on market structure analytical factors as an integrated whole:

> "Through "integrated analysis," questions of market definition, concentration, anticompetitive effects, entry, efficiencies, and other Guidelines' factors are not analyzed in a vacuum, or in a piece-meal fashion. Instead, each of these variables is considered in the context of the others. Instead of approaching the Guidelines' analysis simply as a linear step-by-step progression through each issue, both the agencies and the private bar, when counseling businesses, must conceptualize those sections as making up an integrated whole."[33]
>
> "[I]n many technology markets, there is often no easily classified "product" in the traditional sense of the word. Instead, the consumer is often buying functionality or services, not a particular physical item that is easily identifiable . . . . Thus, determining which emerging technology services compete or will likely soon compete with the service offered by the parties under investigation is a potentially challenging task."[34]

[32] Platt Majoras D. (2005): "Protecting Markets and Consumers in a High-Tech World", Address Before the Software Information Industry Alliance (February 1, 2005) at 4, available at http://www.ftc.gov/speeches/majoras/050201protectingmarkets.pdf.

[33] Platt Majoras D. (2004): "Looking Forward: Merger and Other Policy Initiatives at the FTC", Address Before the ABA Antitrust Section Fall Forum (November 18, 2004) at 6, available at http://www.ftc.gov/speeches/majoras/041118abafallforum.pdf.

[34] Platt Majoras D., *supra* n. 33 at 6.

On customer testimony:

> "One of the factors that we are examining is customer testimony. The courts in [ArchCoal and Oracle/PeopleSoft] discounted the significance of the testimony of many of the agencies' largest customer witnesses. My view is that we should continue to give significant weight to the views of customers in our merger investigations, and continue to present customer testimony at trial. Customers are valuable sources of information about many mergers' competitive effects because they have the most to lose from an anticompetitive deal, and usually have little incentive to provide misleading information."[35]

On flexible remedies in IP cases:

> "What is most important is that remedies analysis in merger cases be as fact-driven as the overarching competitive analysis. Differences from case to case can most easily be understood by examining the underlying nature of the markets and industries involved."[36]
>
> "Divestitures of physical assets are clear and relatively easy to administer. Nonetheless, because our merger work increasingly involves the transfer of intellectual property and other information technology, we must devise new solutions to effectively remedy violations."[37]

4. Analogous cases

The analytical route may be further clarified by recent developments in somewhat related cases. Recent court and FTC merger reviews, while not arising, strictly speaking, in R&D cases, give some suggestions as to depth of factual analysis that could be applied appropriately in R&D merger proceedings.

The district court opinion in *Oracle/PeopleSoft*,[38] dismissing the government's complaint against an enterprise management software acquisition, elaborates on the competitive strength of possible repositioners and fringe firms and on the unreliability of customer statements that are not supported by empirical proof. Similar skepticism of unsupported customer fears of the post-merger world also resides in the district court's preliminary injunction decision in *ArchCoal*.[39]

[35] Platt Majoras D. (2005): "US Antitrust Practice—How Does It Affect European Business?", Address Before the Studienvereinigung Kartellrecht (Apr. 7, 2005) at 10, available at http://www.ftc.gov/speeches/majoras/050411brussels.pdf.

[36] Platt Majoras D., *supra* n. 34 at 9.

[37] Platt Majoras D. (2005): "Recent Actions at the Federal Trade Commission", Address Before the Dallas Bar Association's Antitrust and Trade Regulation Section (January 18, 2005) at 7, available at http://www.ftc.gov/speeches/majoras/050126recentactions.pdf.

[38] *United States v. Oracle Corp.*, 331 F. Supp. 2d 1098 (D.C. N. D. Cal. 2004).

[39] *Federal Trade Comm'n v. Arch Coal, Inc.*, 329 F. Supp 2d 109 (D.D.C. 2004).

United States v. SunGard Data Systems Inc. and Comdisco[40] supports the approach that a rigidly strict narrow-market approach should not dictate merger analysis in a high tech market without an in-depth factual review of alternative competitive systems.

The FTC's majority statement addressing the *Royal Caribbean/Carnival Cruise Lines* merger proposal[41] also underscores the need for institutional market analysis and, in addition, the need to take account of competitive alternatives which affect but may not be technically "in" the market.

5. The significance of *Genzyme/Novazyme*

The *Genzyme* case,[42] which was closed in 2004 after three years of investigation, seems to confirm the necessity of unilateral effects analysis in R&D innovation mergers, but underscores that the agency will evaluate actual research incentives regardless of the activities of rivals. The case involved Genzyme Corporation's acquisition of Novazyme Pharmaceuticals. At the time of the acquisition, Genzyme and Novazyme were the only two competitors seeking to develop an enzyme-replacement treatment for Pompe disease, a rare and often fatal disease for which there was no cure. Both companies did not yet have a product in the market, as they were still at pre-clinical testing stages. Another important fact in the case was that the relatively small number of Pompe patients brought it under the Orphan Drug Act, which meant that the first of the two companies to gain FDA approval would have enjoyed seven years of regulatory market exclusivity.[43]

The FTC's investigation focused on "the transaction's potential impact on the pace and scope of research into the development of a treatment for Pompe disease."[44] The statement of then-Chairman Muris on closing the investigation begins by noting that "[a]ssessing the effects of a merger on the pace of innovation is especially fact dependant"[45] and makes clear that "neither economic theory nor empirical research supports an inference regarding the merger's likely effect on innovation . . . based simply on observing how the

[40] *United States v. SunGard Data Sys. Inc. & Comdisco*, Civil No.01-2196 (D.D.C. 2001), available at http://www.usdoj.gov/atr/cases/f9400/9439.htm.

[41] Statement of the Federal Trade Commission Concerning Royal Caribbean Cruises Ltd., *P&O Princess Cruises plc and Carnival Corporation/P&O Princess Cruises plc*, FTC File No. 021 0041 (Oct. 4, 2002), *available at* http://www.ftc.gov/os/2002/10/cruisestatement.htm.

[42] Statement of Chairman Timothy J. Muris in the matter of *Genzyme Corporation/Novazyme Pharmaceuticals, Inc*. (Jan. 13, 2004) at 5–6, *available at* http://www.ftc.gov/os/2004/01/murisgenzymestmt.pdf (hereinafter Muris Genzyme Statement).

[43] Orphan Drug Act, Pub. L. No. 97-414, 96 Stat. 2049 (1983).

[44] Press Release, US Federal Trade Commission, FTC Closes its Investigation of Genzyme Corporation's 2001 Acquisition of Novazyme Pharmaceuticals, Inc. (January 13, 2004), available at http://www.ftc.gov/opa/2004/01/genzyme.htm.

[45] Muris Genzyme Statement, *supra* n.43 at 2.

merger changed the number of independent R&D programs. Rather, one must examine whether the merged firm was likely to have a reduced incentive to invest in R&D . . . ."[46]

The Chairman and majority specifically rejected the dissents' view that the innovation mergers should be viewed through a lens whereby a merger would "establish a rebuttable presumption of [anti]competitive effects . . . if the change in, and resulting level of, market concentration is significant,"[47] because, as the majority realized, "[t]here is no reason to believe, a priori, that a particular merger is more likely to harm innovation than to help it . . . . "[48]

Instead, the supporting statement correctly points out that the key consideration is whether, absent the merger, the competition between Genzyme and Novazyme would have had a substantial effect on the amount of or timing of the parties' spending on R&D or on when one of their products would reach the market, *regardless* of the presence of other competitors.[49]

Moreover, by noting that the "number of independent R&D programs"[50] does not itself support any inference of reduced incentives, the Chairman's statement also confirms that the normal presumptions of coordinated interaction theories may not be appropriate for mergers that result in only a few players.

Thus, *Genzyme* helps to illuminate two basic principles of antitrust analysis in R&D mergers. First, that market shares, concentration levels or even the existence of other R&D rivals do not in themselves predict incentives to innovate, as prediction of firms' incentives to innovate does not yield to traditional analysis that ties between market structure and the robustness of the competitive process; and second, that a unilateral effects analysis must focus on the likely post-merger effects on innovation rather than pre-merger status of innovation efforts.

6. Conclusion—US reflections

Notwithstanding a consensus that the *Genzyme* matter is of landmark significance, there are varying views as to its concrete ramifications. Richard Rapp, NERA, stated to the 2004 FTC/DOJ Workshop on Merger Enforcement that *Genzyme* suggests that there is no innovation market policy at all, *i.e.*, the policy is one of noninterference.[51] Conversely, two senior FTC

[46] Muris Genzyme Statement at 5–6.

[47] *Id.* at 23.

[48] *Id.*

[49] *Id.* at 11–12.

[50] *Id.* at 6.

[51] Rapp R. T. (2004): "Innovation Market Analysis After *Genzyme-Novazyme*", Address Before the Federal Trade Commission-Department of Justice Workshop on Merger Enforcement (February 18, 2004), available at http://www.ftc.gov/bc/mergerenforce/presentations/040218rapp.pdf.

staff members have observed that a challenge to an IP merger remains likely, post-*Genzyme*, so long as two firms are in development and a merger of patent portfolios may block future entry, there is a close IP substitute relationship between the merging parties, or one party is in the goods market and the other is next in line.[52] Perhaps the correct notion is a broader one that scholars have suggested prior to the *Genzyme* decision, namely, that despite the fact that innovation effects are identified in an increasing number of merger actions, innovation concerns are usually not decisive in them. To be sure, innovation impacts are considered by the agencies as a factor in these actions, but there is no separate innovation theory analysis, nor is the outcome of these cases necessarily different from what it would have been had innovation been excluded from the analysis.[53] So it seems that there is no coherent separate innovation-market theory, but rather different notions that are highlighted here.

In theory, a unilateral effects analysis remains viable. The difficult question is what nature and quality of evidence will be required to justify a challenge to an IP merger. It seems likely that some combination of business plans, analysis by scientific and/or technological experts as well as industry experts, economic projections, and informed customer views will be needed. The hurdle is, and should be, high, and whether a "pure" IP merger challenge would fall to such a standard seems problematic. Nevertheless, the landscape is open to continued exploration in the US and certainly in other jurisdictions.

C. EU Reflections

1. Case law

Similarly to the US, the European Commission (hereinafter EC) has seen a growing number of merger cases that involved a potential reduction in R&D competition. The following are some examples thereof.

[52] Moore R. and Vedova H. (2004): "The Road to *Genzyme*: A Look at Competition in Innovation Cases at the Federal Trade Commission", ABA Antitrust Section Intellectual Property Committee Newsletter, Vol. 5, No. 2 (Fall 2004).

[53] See Gilbert R. J. and Tom W. K. (2001): "Is Innovation King at the Antitrust Agencies? The Intellectual Property Guidelines Five Years Later", 69 *Antitrust Law Journal* 43; and Landman L. B. (1998): "Competitiveness, Innovation Policy, and the Innovation Market Myth: A Reply to Tom and Newberg on Innovation Markets as The "Centerpiece" of 'New Thinking' on Innovation", 13 *St. John's Journal of Legal Commentaries* 223.

- *Shell/Montecatini* (1994).[54] A proposed joint venture in the market for the production and sales of polypropylene (hereinafter PP), whereby the relevant geographic market for licensing of PP technology was defined as a worldwide one.[55] The EC found that the development of new or improved PP technologies was patented or otherwise protected by intellectual property rights, and thus PP manufacturers who had not developed their own technology needed to license PP technology. In the specific circumstances of the proposed venture, the EC was concerned that the intellectual property rights posed barriers to entry into the technology market for the development of PP.[56] The deal was therefore only approved subject to a detailed undertaking of the parties to leave certain PP technology outside the deal, and to implement a specially tailored structure that will maintain the technology with a third independent enterprise that was set up specifically for this purpose.[57]
- *Glaxo/Wellcome* (1995).[58] Glaxo's acquisition of Wellcome drew the attention of the EC with respect to three specific pharmaceutical markets, anti-emetics, systemic antibiotics and anti-migraine drugs. While the EC noted that the patent over Wellcome's anti-migraine drug had expired some twenty years earlier and it was being offered in a generic version, it also noted that both parties were carrying out R&D in the area of anti-migraine drugs and were already in pre-clinical trial stages. Therefore, the merger was approved only after the parties agreed to license to third parties the technology to further develop or market one of these advanced anti-migraine technologies that were at pre-clinical stages.[59] Also note that, geographically, the impact of the concentration in the area of R&D was assessed in relation to "European Union or even worldwide markets."[60]
- *Ciba-Geigy/Sandoz (Novartis)* (1996).[61] In this case, which was reviewed in parallel by the FTC and the Canadian Competition Bureau, the EC considered the planned merger between the two Swiss companies, Ciba-Geigy AB and Sandoz AG, into a new company called Novartis AG. Since

[54] Case No IV/M.269—*Shell/Montecatini*, Commission Decision of declaring the compatibility of a concentration with the common market, 1994 OJ L 332 [1994], available at http://ec.europa.eu/comm/competition/mergers/cases/decisions/m269_19940608_600_en.pdf.

[55] *Id.* paras. 49–51.

[56] *Id.* paras. 31–32.

[57] *Id.* para. 116.

[58] Case No IV/M.555—*Glaxo/Wellcome*, Commission Decision of 28/02/1995 declaring a concentration to be compatible with the common market according to Council Regulation (EEC) No 4064/89, OJ C 65 [1995], available at http://europa.eu.int/comm/competition/mergers/cases/decisions/m555_en.pdf.

[59] *Id.* paras. 27–31.

[60] *Id.* para. 18.

[61] Case No IV/M.737—*Ciba-Geigy/Sandoz*, Commission Decision of 17 July 1996 in a proceeding pursuant to Council Regulation (EEC) No 4064/89, OJ L 201 [1997], available at http://europa.eu.int/eur-lex/lex/LexUriServ/LexUriServ.do?uri=CELEX:31997D0469:EN:HTML.

Novartis was about to be the world's leading supplier of crop protection products and second largest supplier in the pharmaceuticals, animal health and seed sectors, and as Ciba-Geigy and Sandoz have been market leaders across a range of products in these sectors for many years, the EC was concerned that specific sectors, especially pharmaceuticals, crop protection products and animal health, required detailed investigation.

More specifically, the concern was that the pooling of the R&D capabilities of Ciba-Geigy and Sandoz would create a potential which will be far greater than that of other competitors. To alleviate these concerns, the EC's decision required that in the gene therapy sector Ciba-Geigy-Sandoz (or Novartis) would, for two years following the merger, grant requesting competitors' non-exclusive licenses to the technology that its European patents covered.[62]

- *Crown Cork/Carnud Metal Box* (1996).[63] The EC was concerned that this proposed merger between two leading manufacturers of metal and plastic packaging, would create a dominant position in the market for tinplate aerosol cans, among other things, through "concentration of know-how, R&D and technology of the two market leaders."[64] The decision, which relied heavily on testimonials from customers, found that the specific market at hand was experiencing a fast-moving and costly evolution in technology and know-how, and that possessing and updating state-of-the-art know-how was a primary factor driving competition in that market (as customers felt they had a need to source from large international companies with strong technical resources such as the merging parties). As a result, the EC approved the merger only upon the parties commitment to sell certain IP rights.

  The EC has cited the *Crown Cork* decision elsewhere as reflecting its view that "[a]ccess to . . . leading technologies may give the merging firms a strategic advantage over their competitors."[65] However, it also noted that such a remedy of selective divestiture of certain assets may risk the viability and efficiency of the resulting business and therefore needs to be considered with great care.[66]

[62] *Id.* paras. 107 and 275.

[63] Case No IV/M.603—*Crown Cork & Seal/CarnaudMetalbox*, Commission Decision of 14 November 1995 declaring a concentration to be compatible with the common market and the functioning of the EEA Agreement, OJ L 75 [1996], available at http://europa.eu.int/eur-lex/lex/LexUriServ/LexUriServ.do?uri=CELEX:31996D0222:EN:HTML.

[64] *Id.* para. 61.

[65] Commission notice on the appraisal of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (December 11, 2002) at 5, available at http://europa.eu.int/comm/competition/mergers/review/final_draft_en.pdf.

[66] Commission notice on remedies acceptable under Council Regulation EEC No 4064/89 and under Commission Regulation (EC) No 447/98, OJ C 68 [2001], para. 18, available at http://europa.eu.int/eur-lex/pri/en/oj/dat/2001/c_068/c_06820010302en00030011.pdf.

- *Glaxo Wellcome/Smithkline Beecham* (2000).[67] This case involved various specific human pharmaceutical markets. In its analysis, the EC noted that competitive assessment in the pharmaceutical industry requires consideration of products that are not yet in the market but are at an advanced stage of development. It then goes on to note that it looks at R&D potential in such cases both in terms of its importance to existing markets as well as to future markets, and provides some guidance on how it assesses competition in pipeline products that are not in the market yet.[68]

  More specifically, with respect to the pipeline products evaluated there, the EC engaged in extensive analysis of the circumstances. With respect to the market for asthma treatment, it found "no risk of eliminating actual R&D competition"[69] between the parties. Second, with respect to treatment of COPD (Chronic Obstructive Pulmonary Disease), it found that

  > "[g]iven the attractiveness of the market and the fact that GW and SB pursue different lines of research and development in COPD . . . the operation is unlikely to lead to an elimination of the existing R&D currently being conducted by the merging parties. While it is feasible to believe that the parties will streamline their R&D efforts in the future, given the large number of current pipeline products and resourceful competitors on the market, the Commission does not consider that this would lead to the diminution of the overall R&D potential either."[70]

  Nevertheless, the EC did note Glaxo Wellcome's strong position in a specific line of COPD therapy that was likely to grow even stronger although the circumstances for such growth was not certain. It therefore adopted a specially-tailored remedy, under which Glaxo Wellcome has committed to license that technology to third parties only if potentially-competing compounds for this line of therapy fail stage III of the clinical trials, and thus no longer pose a competitive threat to that technology.[71] Similarly, it approved the merger only after the parties made a broader formal commitment that after the merger they would license a list of other technologies to interested third parties.[72] In doing so, the EC showed its willingness to take into account future, and hence somewhat uncertain, changes to the pertinent market.
- *Philips/Agilent Health Care Solutions* (2001).[73] This was a case involving Philips' acquisition of Agilent, a medical imaging company. The EC

[67] Case No IV/M.1846—*Glaxo Wellcome/Smithkline Beecham*, Commission Decision of 08/05/2000 declaring a concentration to be compatible with the common market according to Council Regulation (EEC) No 4064/89, OJ C 170 [2000], available at http://europa.eu.int/comm/competition/mergers/cases/decisions/m1846_en.pdf.

[68] *Id.* paras. 70–72.

[69] *Id.* para. 177.

[70] *Id.* para. 188.

[71] *Id.* paras. 194-195.

[72] *Id.* paras. 197, 218–223, and Annex to the decision.

[73] Case No IV/M.2256—*Philips/Agilent Health Care Solutions*, Commission Decision of 02/03/2001 declaring a concentration to be compatible with the common market according to

approved the merger without instigating a phase II review. However, its regulatory review analyzing the potential for unilateral effects in the market for cardiac ultrasound imaging equipment relied on, among other things, evidence that market shares in that market tended to fluctuate due to rapid technological innovation. This was viewed as allowing competitors with the newest products to gain market shares quickly at the expense of existing older products, thus creating a market that is dynamic, competitive and easy to enter.[74] In other words, the market's high innovation nature was taken as a pro-competitive consideration.

- *Bayer/Aventis Crop Science* (2002).[75] An extensive decision, nearly 300 pages, dealing with a proposed merger in the crop protection industry, which the EC viewed as an industry driven by R&D competition between a few large multinational companies. The EC considered the parties R&D capabilities and incentives[76] and has sounded some notions that reflect a rather interventionist and extreme competition analysis. Thus, for example, in dismissing competitive threats from the generic industry, the EC suggested that technology is protected longer than the original patent protection period, as essential know-how is often not accessible nor transparent from patent applications and literature.[77] The EC also rejected specific claims that the introduction of new products would pose a competitive threat to the parties' products.[78] Nonetheless, despite its far-reaching findings and observations, the EC approved the merger, subject to a long list of commitments that are listed in a sixty page annex to the decision. The commitments included obligations to grant interested parties licenses to certain technologies. Some of the specific commitments were omitted from the public decision due to their confidential nature.

Unfortunately, some cases have expressed concern about combining strong R&D capabilities, but the concern did not emanate from a hypothesis of a reduction of innovation caused by the removal of an R&D competitor. Rather, these cases reflect a concern that combining strong R&D assets would strengthen the combined firm's dominance and discourage others from engaging in their own R&D. For example, in *Boeing/McDonnell Douglas*,[79]

Council Regulation (EEC) No 4064/89, OJ C 292 [1991], available at http://europa.eu.int/comm/competition/mergers/cases/decisions/m2256_en.pdf.

[74] *Id.* paras. 30–31.

[75] Case No COMP/M.2547—*Bayer/Aventis Crop Science*, Commission Decision of 17 April 2002 declaring a concentration to be compatible with the common market and the EEA Agreement, OJ L 107 [2004], available at http://europa.eu.int/eur-lex/pri/en/oj/dat/2004/l_107/l_10720040415en00010136.pdf

[76] *Id.* para. 18.

[77] *Id.* para. 160.

[78] *Id.* para. 681.

[79] Case No IV/M.877—*Boeing/McDonnell Douglas*, Commission Decision of 30 July 1997 declaring a concentration compatible with the common market and the functioning of the EEA Agreement, OJ L 336 [1997], available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31997D0816:EN:HTML.

the EC recognized the importance of intellectual property in the commercial aircraft manufacture industry and expressed concern that Boeing's large patent portfolio was an element strengthening its dominant position.[80]

2. Guidelines

The new EC Horizontal Merger Guidelines,[81] that seem more grounded in sound economics than previous practice, acknowledge the efficiencies often flowing from combining R&D assets. They also note that contrary circumstances may exist, although they do not attempt to provide detail on when that may happen, providing generally that:

> "In markets where innovation is an important competitive force, a merger may increase the firms' ability and incentive to bring new innovations to the market and, thereby, the competitive pressure on rivals to innovate in that market. Alternatively, effective competition may be significantly impeded by a merger between two important innovators, for instance between two companies with 'pipeline' products related to a specific product market. Similarly, a firm with a relatively small market share may nevertheless be an important competitive force if it has promising pipeline products."[82]

The Guidelines also seem to offer a balanced approach. On the one hand, they highlight the importance of post-merger efficiencies that may offset anti-competitive effects, and specifically mention potential efficiency gains in R&D and innovation. They also acknowledge that in analyzing innovative markets current market shares may play a smaller role. On the other hand, they mention R&D and intellectual property rights as potential barriers to entry.[83]

The Block Exemption Regulation for R&D joint ventures[84] may, by way of analogy, provide insight into the Commission's current thinking. The Regulation exempts from Article 81(1) an R&D joint venture between competitors if both parties compete in the market that would include the jointly developed product, so long as their combined share in that market does not exceed twenty-five percent. Accordingly, we can expect that a merger

[80] Case No IV/M.877para. 103. Note, however, that this case also involved unique circumstances under which the merger would have greatly increased Boeing's R&D budget thanks to governmental funding.

[81] *Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings*, OJ C 31 [2004], *available at* http://europa.eu.int/eur-lex/pri/en/oj/dat/2004/c_031/c_03120040205en00050018.pdf.

[82] *Id.* para. 38 (referring to *Glaxo Wellcome/Smithkline Beecham, supra* n. 68).

[83] *Id.* paras. 76–78, 81, 15 and 71 (b), respectively.

[84] *Commission Regulation (EC) No 2659/2000 of 29 November 2000 on the application of Article 81(3) of the Treaty to categories of research and development agreements*, OJ *L 304 [2000], available at* http://europa.eu.int/eur-lex/lex/LexUriServ/LexUriServ.do?uri=CELEX:32000R2659:EN:HTML.

having this same effect would be cleared by the EC. Moreover, the Block Exemption Regulation is only a safe-harbor. It provides no analysis for the thresholds, let alone a framework for assessing individual cases where the "share" of an innovation market exceeds twenty-five percent. The Block Exemption Regulation does not discuss the importance of competition between the particular parties concerned.

3. Conclusion: EC Reflections

In sum, the EC approach seems to be a flexible one that does not tend to impede proposed mergers involving IP aspects. Rather, it carefully considers such mergers and tends to offer specially-tailored obligations (such as time limited licensing requirements) that allow such mergers to go through. Moreover, other developments provide optimism for a rigorous and careful analysis before prohibiting a merger of IP assets:

- The new EC Merger Regulation now emphasizes the law's goal of preventing impediments to competition, relegating the creation of dominance to mere example. This shows promise for a broader approach, namely, one that goes beyond the traditional paradigm that treated intellectual property rights as the usual suspect for competition restriction.
- The EC's new Horizontal Merger Guidelines provide a largely sound economic approach to merger assessment, including a new treatment of efficiencies, and recognition that in analysis of highly innovative markets traditional market data share may be less important as innovative new products may easily gain impressive market shares at the expense of existing products.
- The creation of an Office of the Chief Economist within the EC's Competition Directorate in 2003 strengthens the importance of empirical data. The Chief Economist's independent position allows him to provide independent guidance on methodological issues of economics in the application of EU competition rules.
- Recent critical decisions from the European Courts may have caused the EC to test its theories with greater factual support before prohibiting a merger.

Each of these factors increases the likelihood of convergence in the treatment of mergers of IP assets.

IV

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Intellectual Property and Merger Control (Germany / EU)

A. Introduction

One of the effects of creating an intellectual property right (IP right) is that a formerly public good becomes a private good.[1] IP rights create ownership rights that can be made the subject matter of market transactions. In particular, the owner of an IP right may, to the extent permitted by intellectual property law, transfer the entire ownership right, or he may grant rights of use for other persons through licence agreements.[2] If a market transaction that involves an IP right has a critical mass and therefore reaches certain thresholds, it may fall within the ambit of merger control law, and the IP right itself may play an important role in the assessment of such a concentration.[3]

What follows are some reflections about which kind of merger control questions may be posed by the creation, transfer, licensing and other use of IP rights. They begin with a look into whether and when the use of an IP right may amount to a concentration for the purposes of German and European merger control law (*infra* section B). Next, it will be assessed what role IP rights can play in the material evaluation of a concentration, i.e., to what extent they can be a factor in deciding whether to block or to allow a concentration (C). Finally, we will deal with the role of IP rights in commitments and imposing conditions and obligations to avoid the prohibition of a concentration (D).

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[1] See Mestmäcker E.-J. (2004): "Gewerbliche Schutzrechte und Urheberrechte in der Eigentums- und Wirtschaftsordnung"*,* in *Wirtschafts- und Privatrecht im Spannungsfeld von Privatautonomie, Wettbewerb und Regulierung, Festschrift für Ulrich Immenga*, pp. 261, 267.

[2] See Mestmäcker E.-J. (2004), *supra* n. 1, at p. 261.

[3] See, e.g., Heinemann A. (2002): *Immaterialgüterschutz in der Wettbewerbsordnung. Eine grundlagenorientierte Untersuchung zum Kartellrecht des geistigen Eigentums,* 2002, Mohr Siebeck, Tübingen, pp. 175–176, 522–525.

B. Intellectual Property Rights and the Definition of a Concentration

1. German Act Against Restraints of Competition (GWB)

1.1. Section 37 of the German Act Against Restraints of Competition (GWB)

Section 37 of the German Act against Restraints of Competition (*Gesetz gegen Wettbewerbsbeschränkungen,* or 'GWB') defines what amounts to a concentration for German merger control purposes. The statutory definition is fairly detailed. It enumerates a variety of elements to a transaction, the existence of which leads to a concentration within the meaning of the GWB.[4] The elements of Section 37 GWB can be summarized as comprising four categories of concentration: (1) the acquisition of all or of a substantial part

[4] Section 37 of the GWB reads as follows:
"Concentration
(1) A concentration shall arise in the following cases:
1. acquisition of all or of a substantial part of the assets of another undertaking;
2. acquisition of direct or indirect control by one or several undertakings of the whole or parts of one or more other undertakings. Control shall be constituted by rights, contracts or any other means which, either separately or in combination and having regard to the considerations of fact or law involved, confer the possibility of exercising decisive influence on an undertaking, in particular through
a) ownership or the rights to use all or part of the assets of the undertaking,
b) rights or contracts which confer decisive influence on the composition, voting or decisions of the organs of the undertaking;
3. acquisition of shares in another undertaking if the shares, either separately or together with other shares already held by the undertaking, reach
a) 50 percent or
b) 25 percent
of the capital or the voting rights of the other undertaking. The shares held by the undertaking shall include also the shares held by another for the account of this undertaking and, if the owner of the undertaking is a sole proprietor, also any other shares held by him. If several undertakings simultaneously or successively acquire shares in another undertaking within the parameters mentioned above, this shall be deemed to also constitute a concentration among the acquiring undertakings with respect to those markets on which the other undertaking operates;
4. any other combination of undertakings enabling one or several undertakings to directly or indirectly exercise a competitively significant influence on another undertaking.
(2) A concentration shall also arise if the participating undertakings had already merged previously, unless the concentration does not result in a substantial strengthening of the existing affiliation between the undertakings.
(3) If credit institutions, financial institutions or insurance undertakings acquire shares in another undertaking for the purpose of resale, this shall not be deemed to constitute a concentration as long as they do not exercise the voting rights attaching to the shares and provided the resale occurs within one year. This time limit may, upon application, be extended by the Federal Cartel Office if it is substantiated that the resale was not reasonably possible within this period."

of the assets of another undertaking (*asset acquisition*); (2) the acquisition of direct or indirect control by an undertaking of the whole or parts of another undertaking (*control acquisition*); (3) the acquisition of shares in another undertaking if the shares, either separately or together with other shares already held by the undertaking, reach (a) 50% or (b) 25% of the capital or the voting rights of the other undertaking (*share acquisition*); and (4) any other combination of undertakings that enables one or several undertakings to directly or indirectly exercise a competitively significant influence on another undertaking (*acquisition of competitively significant influence*).

With respect to the relevance of IP rights for the definition of a concentration, it is important to note that the GWB stipulates (1) that the acquisition of a *substantial part* of another undertaking's assets suffices for the assumption of a concentration,[5] and (2) that the acquisition of control can also take place in the form of *ownership* or through *rights to use all or part of the assets* of the undertaking in question, provided that such means confer the possibility to exercise a decisive influence on the undertaking in question.[6] Rights or contracts which confer decisive influence on the composition, voting or decisions of the organs of the undertaking also qualify as control acquisition.[7]

Regarding the acquisition of control, it has generally been recognized in German case law as well as in legal literature that even separate assets, such as trademarks, patents, licences and other IP rights or IP-related rights can constitute a part of an undertaking's assets and can therefore be the subject matter of control. However, in such an instance, the asset in question must be a *substantial* part of the assets of the undertaking. The principles of Section 37(1) no. 1 GWB therefore also apply when construing Section 37(1) no. 2 sentence 2 lit. a) GWB.[8] A look at the relevant case law will help to further demonstrate and clarify these principles.

1.2. Court of Appeals Judgment, W+i Verlag/Weiss-Druck *(1988)*

In 1988, the Court of Appeals (Kammergericht—KG) had to deal with the question of whether the granting of rights to use publisher and title rights for established publications could qualify as a concentration under Section 23(2) no. 3 lit. c) GWB (old version).[9] This provision defined as a concentration "agreements with another undertaking by which all or a substantial part of

[5] Section 37 para. 1 no. 1 GWB.

[6] Section 37 para. 1 no. 2 sentence 2 lit. a) GWB.

[7] Section 37 para. 1 no. 2 sentence 2 lit. b) GWB.

[8] See, e.g., the contribution by Mestmäcker E.-J. and Veelken W. in Immenga U. and Mestmäcker E.-J. (2001): *Gesetz Gegen Wettbewerbsbeschrankungen Kommentar,* 3rd edition, Beck, Bonn, note 24 to Section 37.

[9] KG, Decision of 15.1.1988—Kart I/86—*W+i Verlag/Weiss-Druck*, WuW/E OLG 4095.

the business of another undertaking is leased or otherwise transferred".[10] In the case to be decided, the publication and title rights remained with Weiss-Druck KG, while S-W Verlag had been granted rights of use. S-W Verlag had also entered into all existing lease, advertising, postal and telecommunications agreements, and it had been given the data of existing customers.

The Federal Cartel Office (FCO) had qualified this transfer both as a concentration under Section 23(2) no. 3 lit. c) GWB (old version)[11] and as an asset acquisition under Section 23(2) no. 1 GWB (old version).[12] The Kammergericht agreed and held that the granting of a right of use with respect to title and publisher rights qualified as a concentration under Section 23(2) no. 3 lit. c) GWB (old version). The court's reasoning was that the rights constituted a substantial part of the business of Weiss-Druck KG. According to the court, the provision catches all goods that have a monetary value, irrespective of their particular kind, use and purpose. Also caught were mere business opportunities such as customer relations, for the transfer of which a fee is typically paid. For an established advertising journal publisher (such as Weiss), the court said, the publication and title rights constitute a substantial part of its business. In addition, the court held that the transfer of the customer data file and the entry into advertising, lease, postal and telecommunications agreements qualified as a concentration in the form of an asset acquisition (Section 23(2) no. 1 GWB (old version)).

1.3. Federal Supreme Court Judgment, FRAPAN/Warenzeichenerwerb (1992)

In 1992, the Federal Supreme Court (*Bundesgerichtshof—BGH*) was put in the position to deal with the similar question of whether the registration of a trademark qualified as an asset transfer under Section 23(2) no. 1 GWB (old version).

a) Federal Cartel Office Decision

The FCO had prohibited the acquisition of the trademark 'FRAPAN' for food wrapping foils which had taken place in connection with the transfer of

[10] Section 23 para. 2 no. 3 lit. c) GWB (old version) read as follows: "Als Zusammenschluss im Sinne dieses Gesetzes gelten folgende Tatbestände: (. . .) 3. Verträge mit einem anderen Unternehmen, durch die (. . .) c) dem Unternehmen der Betrieb des anderen Unternehmens ganz oder zu einem wesentlichen Teil verpachtet oder sonst überlassen wird."

[11] With respect to the transfer of title and publication rights.

[12] With respect to the transfer of leases and other areements. Section 23 para. 2 no. 1 GWB (old version) largely corresponded to Section 37 para. 1 no. 1 GWB (new version) and read as follows: "A concentration for the purposes of this statute shall arise in the following cases: 1. acquisition of all or of a substantial part of the assets of another undertaking by merger, conversion or otherwise."

the associated part of a business (*Teilgeschäftsbetrieb*).[13] The registration of the trademark for a subsidiary of Edeka had taken place one day after the trademark had been deleted from the register with respect to Melitta. The FCO considered that the registration/acquisition of the mark qualified as an asset acquisition within the meaning of Section 23(2) no. 1 of the old version of the GWB ("acquisition of the assets by . . . or otherwise"—*Zusammenschluss durch Vermögenserwerb in sonstiger Weise*), i.e., the provision which largely corresponds to Section 37(1) no. 1 GWB (new version).

b) Kammergericht

In a complaint to the Kammergericht, it was argued that the transferred part of the business had no separate value and that it had only been transferred for trademark law purposes. Economically, the acquisition only related to the trademark. Because of this, it was submitted, no acquisition of a substantial part of an asset had taken place, since the trademark was neither a separate business nor a separate functional economic entity.

However, the Kammergericht disagreed and confirmed the FCO's decision.[14] Concentrations in the form of asset acquisitions (Section 23(2) no. 1 GWB old version) could also take place solely by the transfer of a trademark, provided such trademark constitutes either all or a substantial part of the assets of an undertaking. Since each asset may qualify as an asset for concentration purposes as long as it has monetary value, trademarks could also constitute the substantial part of the assets of an undertaking, as trademarks represent absolute rights and can be made the subject matter of a specific and separate sale and transfer.

The court then looked into what defines a substantial part of an undertaking's assets. This question depended on whether the transfer of the particular asset may change the acquirer's *position on the market*. The court held that, for this test, not only are the operational conditions of the transferor relevant, but one must also consider the position to be acquired on the market and whether, in light of this position, there is an appreciable change in the market conditions. According to the court, only those parts of assets that, in relation to the entirety of the assets, are either quantitatively sufficiently valuable or possess (irrespective of their size or value) a separate qualitative importance could be regarded as "substantial". The purpose of merger control law was to prevent distortions of the competitive conditions and it was therefore not necessary to restrict the application of Section 23(1) no. 1 GWB (old version) to transfers of parts of a business. With respect to the transfer of a trademark, the question of whether the asset is substantial depended on the economic importance of the trademark in question, its name recognition and the associated function to relay the product's origin and

[13] See FCO, *Tätigkeitsbericht 1993/94,* pp. 17, 19, 100–101.

[14] KG, Decision of 23.5.1991—Kart. 13/89—*Folien und Beutel*, WuW/E OLG 4771.

quality. Using these standards, the Kammergericht decided that the competitive position of the acquirer on the relevant market could be assumed to change due to the use of the 'FRAPAN' trademark.

c) Federal Supreme Court Judgment

The BGH confirmed.[15] Whether a part of an undertaking's assets is substantial would have to be decided in light of the purpose of merger control law, which is to prevent concentrations that change structural market conditions in such a way that the effectiveness of competition is no longer guaranteed or competition is further restrained. Parts of assets can therefore be substantial if their acquisition is capable of strengthening the position of the acquirer on the relevant market. While the outcome remained the same, the court's reasoning slightly differed from that of the Kammergericht. According to the court, the palpable effects of the acquisition for the market position of the acquirer in question were irrelevant: only the abstract ability of the asset in question to change the acquirer's market position would matter.

Under these standards, what matters is a market-based, and not an 'acquirer-based' test. In slight contrast to the approach taken by the Kammergericht, the BGH ruled that not every acquisition that leads to a strengthening of market power of the acquirer and the associated significant change in market conditions qualifies as the acquisition of a substantial part of assets. It would not be in line with the purposes of merger control law if every large asset acquisition (such as the acquisition of real property or IP rights such as patents) had to be notified. Instead, only acquisitions that *enable the transferee to enter into the transferor's market position* are caught. Section 23(2) no. 1 GWB (old version)—and therefore also Section 37(1) no. 1 GWB (new version)—is only fulfilled in the case of the transfer of an asset which is separable from the remainder of the assets and which is the *primary foundation* of the transferor's position on the relevant market and thereby qualitatively capable of significantly strengthening the acquirer's position on the relevant market. According to the court, such a primary foundation (substrate) for concentration purposes can also be given in the case of the transfer of a well-established trademark that represents the business performance of an undertaking and the quality of its products.

The court emphasized that the novelty of its decision consisted in its ruling that the transfer of a trademark *as such* can qualify as an asset acquisition under Section 23(2) no. 1 GWB (old version) (and therefore also under Section 37(1) no. 1 GWB (new version)). The previous case law had only dealt with the question of whether the acquisition of a part of a business (such as a cement plant) or a certain business division of an undertaking can be

[15] BGH, Decision of 7.7.1992—KVR 14/91—*Warenzeichenerwerb*, WuW/E BGH 2783.

considered as the acquisition of a substantial part of assets. In the case at hand, however, only the trademark without an associated production entity had been transferred. The goods that were distributed under the 'FRAPAN' trademark were not manufactured by the transferor itself. The court held, however, that as long as the transferred trademark or other IP right qualifies under the primary foundation (substrate) test, it does not matter whether a business (or part of a business) is transferred as well. In the case of FRAPAN, the court held that the trademark had been the primary foundation of the transferor's market position in the wholesale distribution of aluminium foil, cling films, freezer bags, breakfast pouches and baking parchment. The acquisition of the trademark in itself as such therefore enabled the transferee to enter into that market position and thereby significantly influence market conditions. The concurrent transfer of distribution documents such as customer and supplier relations was therefore irrelevant to the analysis.

The decision led to mixed reactions. While it appears that most commentators agreed that the mere transfer of an IP right may qualify as a concentration,[16] the decision has also been criticized as being overly broad.[17]

1.4. Federal Cartel Office Decision, Cisco/IBM (2000)

The FCO's decision in *Cisco/IBM* dealt with the transfer of a business that primarily consisted of IP rights.[18] The subject matter of the transaction was IBM's business activities in the area of development and distribution of active components of data networks (open data transfer technologies such as ATM und Ethernet). All relevant IP rights for this business were transferred from IBM to Cisco, together with customer data. The parties also entered into a distribution agreement. No other assets or means of production were transferred.

The FCO decided that the transaction qualified as a concentration in the form of the acquisition of a substantial part of assets under Section 37(1) no. 1 GWB. Although (in addition to the distribution cooperation) only IP rights and customer data were transferred *in rem*, this was sufficient to infer a concentration because the entirety of the agreements was aimed at and capable of transferring the market position of IBM in the distribution of

[16] See, e.g.: Karl-Heinz Fezer, note to BGH Warenzeichenerwerb, GRUR 1993, 847, 848 (agreeing with the decision and arguing that the acquisition/transfer of a trademark may also qualify as an asset transfer and therefore as a concentration under the European merger control law); Bruhn, in Schulte J. L., ed. (2005): *Handbuch Fusionskontrolle,* Luchterhand, p. 34; Richter, in Wiedemann G. (1999): *Handbuch des Kartellrechts*, Beck, Munchen, p. 658.

[17] See Knöpfle R. (1992): "Zum Zusammenschluß durch den Erwerb eines Vermögensteiles", 8 *Newe Juristiche Wochenschrift* 472 (arguing against the BGH's position that it suffices, for purposes of Section 37 para. 1 GWB, that—qualitatively—the transferred asset is of particular importance and changes acquirer's market position, and that is irrelevant whether—quantitatively—the asset constitutes a substantial part of the transferor's assets).

[18] FCO, Decision of 3.3.2000—B7-30020-U-221/99—*Cisco/IBM*, *WuW*/E DE-V 227.

network technology for data networks to Cisco: the patents embodied the technical expertise and the customer data contained the knowledge about the identity and needs of customers which allowed Cisco to enter into IBM's position *vis-à-vis* the customers. The transfer of the market position was further protected by the cooperation agreement, which provided for the joint development and marketing of migration solutions for the transfer from products of the sold business to Cisco products. The entirety of the measures was suited to cause a significant strengthening of Cisco's market position.

1.5. Court of Appeals Judgment, National Geographic (2005)

a) Federal Cartel Office Decision

In its latest decision dealing with concentrations merely through the transfer of intangible goods, the FCO decided on 2 August 2004 that the purchase of a 10-year exclusive licence for a German edition of *National Geographic* magazine by German publisher Gruner + Jahr constituted a notifiable concentration.[19] Having acquired a licence from the National Geographic Society, Gruner + Jahr was the first publisher to introduce a German edition of *National Geographic* to the German market. Previously, only the English edition of the journal had been available in Germany (with a distribution of approximately 50,000).

The FCO did not qualify the transaction as the acquisition of assets under Section 37(1) no. 1 GWB, but it considered that the acquisition of the licence constituted an acquisition of control within the meaning of Section 37(1), second sentence no. 2a) GWB. It stated that this provision was also meant to catch the case of Section 23(2) no. 3c) GWB (old version), i.e., a concentration through an agreement with another undertaking by which all or a substantial part of the business of another undertaking is leased or otherwise transferred.[20] By building its decision on Section 37(1), second sentence no. 2a) GWB, it seems that the FCO mainly drew on the Kammergericht's reasoning in *W+i Verlag/Weiss-Druc*.[21] However, the FCO also heavily consulted the criteria used by the BGH with respect to concentrations through asset acquisition.

The FCO decided that the acquisition of control under Section 37(1), second sentence no. 2a) GWB covers the transfer of usage rights both *in rem* and *in personam*. Therefore it did not matter that the grant of the licence was only limited in time and only had *in personam* character (the rights for the German edition of *National Geographic* had only been licensed, and not fully

[19] FCO, Decision of 2.8.2004—B6-26/04—*National Geographic*, WuW/E DE-V 947.

[20] See *supra* n. 10.

[21] See *supra* B.1.2. As we have seen, the judgment in *W+i Verlag/Weiss-Druck* was based on Section 23 para. 2 no. 3 lit. c) GWB (old version).

transferred to Gruner + Jahr). According to the FCO, for merger control purposes it would only depend on whether the acquired part of assets was capable of strengthening the acquirer's position in the relevant market. Citing the BGH's *Warenzeichenerwerb* judgment, the FCO pointed out that it was not the palpable effects of the acquisition on the acquirer that mattered but rather the abstract ability of the acquired part of assets to change the market position of the transferee. The FCO held that this depended upon whether the acquired asset qualified as a substantial asset within the meaning of Section 37(1) no. 1 GWB. As explained above, according to the BGH's *Warenzeichenerwerb* judgment, this was the case if the asset in question is the primary foundation (the substrate) of the transferor's position on the relevant market and is able to transfer that position to the acquirer. Citing the *Warenzeichenerwerb* and *W+i Verlag/Weiss-Druck* judgments, the FCO found that a trademark or licence as such can qualify as a substantial asset.

According to the FCO, the title of the magazine and the name of the National Geographic Society in general are well established. Therefore, no new launch of a title for a popular science magazine on the relevant German market was necessary for Gruner + Jahr. The publication and title rights for the brand 'National Geographic' constituted a substantial part of a business under Section 23(2) no. 3c) GWB (old version) and therefore also a substantial part of an asset for the purposes of Section 37(1) no. 1 GWB (new version) by which a market position could be conferred on the transferee.

The novelty of the FCO's decision lies in the fact that, at the time of licensing, no turnover or sales were associated with the German edition of the *National Geographic* magazine. Gruner + Jahr was the first publisher ever to launch a German edition. The FCO held that this was irrelevant. Citing the *Warenzeichenerwerb* judgment, it found that the main criterion for the assumption of an acquisition of a substantial part of an asset (Section 37(1) no. 1 GWB) in the case of IP rights was the profile and publicity of the acquired brand. If a well-known trademark brand symbolized the business performance of an undertaking and the reputation of its products, it could be the foundation of its market position. These principles were held to apply in case of 'National Geographic' due to the fact that the brand was among the most well-known names worldwide and irrespective of any German edition of the magazine. Even though Gruner + Jahr still had to launch a German edition, at the time of the acquisition of the licence the brand had been firmly established in the German market through the English edition and the century-old tradition of the brand in general. Gruner + Jahr could therefore build on the existing reputation rather than launch a new and hitherto unknown title. In a parallel decision, the FCO also prohibited Gruner + Jahr's proposed acquisition of sole control of a joint venture associated with the licence transfer.[22]

[22] See FCO, Decision of 3.8.2004—B6-45/04 *National Geographic*.

b) Court of Appeals Judgment (Oberlandesgericht Düsseldorf)

Gruner + Jahr strongly opposed the FCO's position and successfully appealed to the Düsseldorf Court of Appeals (*Oberlandesgericht Düsseldorf—OLG Düsseldorf*).[23] Disagreeing with the FCO's point of view, the OLG Düsseldorf stated that the transaction neither constituted an acquisition of assets under Section 37 (1) no. 1 GWB nor an acquisition of control in the sense of Section 37 (1), second sentence no. 2a) GWB.

According to the court, usage rights are not an appropriate object of acquisition in the sense of Section 37 (1) no. 1 GWB, as this form of acquisition refers to a transfer of full ownership and title of the right in question. Moreover, according to the OLG Düsseldorf, no acquisition of control had occurred since Gruner + Jahr had not acquired a substantial part of an asset as required by Section 37 (1) second sentence no. 2a) GWB. The court stated that the criterion of substantiality, although not explicitly contained in the wording of Section 37 (1), second sentence no. 2a) GWB, was necessary to maintain a systematic coherence with Section 37 (1) no. 1 GWB, and that the criterion had to be interpreted with a view to German merger control's objective of avoiding concentrations capable of putting at risk the efficiency of competition.

In theory, according to the OLG Düsseldorf, substantiality can be determined either quantitatively or qualitatively. Since the FCO had not determined whether the publication and title rights acquired by Gruner + Jahr constituted a sufficient part of the transferor's (i.e., the National Geographic Society's) entire property, the quantitative approach was not applicable. Under the qualitative approach, the court declared that substantiality of a transferred usage right only exists where the acquired values are the primary basis of the seller's position in the relevant market and are *capable of transferring this existing position to the buyer*, similar to an asset acquisition that allows a transfer of the seller's existing market position.[24] This, according to the court, results from the BGH's *Warenzeichenerwerb* judgment[25] as well as from the European Commission's interpretation of the terms "concentration" and "undertakings concerned" in the EC Merger Regulation 4064/1989, Article 3 (1) lit. b), (3) of which functioned as a role model for Section 37 (1) no. 2 GWB. The OLG Düsseldorf also made reference to paragraph 14 of the Commission's Notice on the concept of undertakings concerned[26] and to paragraph 11 of the Notice on the concept

[23] OLG Düsseldorf, Decision of 15.6.2005—VI Kart 24/04 (V)—*National Geographic*, WuW/E DE-R 1504.

[24] OLG Düsseldorf, Decision of 15.6.2005—VI Kart 24/04 (V)—*National Geographic*, WuW/E DE-R 1504, 1505/1506.

[25] *Idem*, WuW/E DE-R 1504, 1506/1507.

[26] *Commission Notice on the concept of undertakings concerned*, OJ C 66 [1998].

of concentration,[27] according to which an acquisition of control can also refer to trademarks and licences as "parts" of an undertaking, provided that a market turnover can be clearly attributed to them.[28]

Applying these principles, the court ruled that, since the National Geographic Society had never obtained a position in the relevant geographic market for popular science magazines in the German language, the transfer of the usage rights itself was not capable of strengthening Gruner + Jahr's position on the relevant market but only created the *possibility or chance* to gain a market position by launching a German edition of *National Geographic* for the first time. The OLG Düsseldorf disagreed with the view that the potential market relevance of the transaction based on the popularity of the brand 'National Geographic' was sufficient to fulfil the criteria of Section 37 (1), second sentence no. 2a) GWB.

Despite this (preliminary) outcome, the *National Geographic* case demonstrates yet again that it is vital for companies to bear in mind the potential merger control relevance when acquiring established brand licences. Under the judgment of the OLG Düsseldorf, the acquisition of licences for brands that are absent from the relevant geographic market at the time of licensing no longer appear to risk being qualified as a concentration and subject to German merger control. However, the FCO has appealed to the BGH.[29] It remains to be seen whether the BGH will be more willing than the OLG Düsseldorf to accept the FCO's argument that the mere transfer of a brand, albeit being absent from the relevant market at the time of licensing, can trigger the applicability of German merger control law.

2. European Merger Control Regulation (Regulation 139/2004)

2.1. Article 3 of Regulation 139/2004

Article 3 of Regulation 139/2004 (European Merger Control Regulation, or 'EMCR') defines which kinds of transactions qualify as concentrations for the purposes of European merger control law.[30] A concentration arises in two

[27] *Commission Notice on the concept of concentration*, OJ C 66 [1998].

[28] OLG Düsseldorf, Decision of 15.6.2005—VI Kart 24/04 (V)—*National Geographic*, WuW/E DE-R 1504, 1507.

[29] Docket no. KVR 32/05.

[30] Article 3 of Regulation 139/2004 reads as follows:
"Definition of concentration
1. A concentration shall be deemed to arise where a change of control on a lasting basis results from:
(a) the merger of two or more previously independent undertakings or parts of undertakings, or
(b) the acquisition, by one or more persons already controlling at least one undertaking, or by one or more undertakings, whether by purchase of securities or assets, by contract or by any

instances, namely either (a) the merger of two or more previously independent undertakings or parts of undertakings (*concentration by merger*), or (b) the acquisition of direct or indirect control of the whole or parts of one or more other undertakings, whether by purchase of securities or assets, by contract or by any other means (*concentration by acquisition of control*). Acquisition of control requires that the means used for the acquisition confer the possibility of exercising a decisive influence on the other undertaking, particularly by (i) ownership or the right to use all or part of the assets of an undertaking (*control by asset acquisition*), or (ii) rights or contracts which confer decisive influence on the composition, voting or decisions of the organs of the undertaking (*control by acquisition of decisive influence*). The former provision (acquisition of ownership or the right to use all or part of the assets of an undertaking) was used as a model[31] for the wording of Section 37(1), second sentence no. 2a) GWB, on which the FCO based its finding of a concentration in its *National Geographic* decision.[32]

According to paragraph 14 of the Commission's Notice on the concept of undertakings concerned, the concept of "parts" of one or more undertakings within the meaning of Article 5(2) EMCR (a provision dealing with the calculation of turnover), "is to be understood as one or more separate legal entities . . ., internal subdivisions . . ., or specific assets which in themselves could constitute a business (e.g. *in certain cases brands or licences*) to which a market turnover can be clearly attributed".[33] More specific to the question of *assets* of an undertaking (rather then "parts" of an undertaking), paragraph 46, footnote 17 of the Notice on the concept of undertakings concerned provides as follows: "The term 'assets' as used here means specific assets which in themselves could constitute a business (e.g. a subsidiary, a division of a company or, *in some cases, brands or licences*) *to which a market turnover can be clearly attributed*."[34] For the transfer of IP rights and related rights to qualify as an acquisition of control under Article 3(1) lit. a) and Article 3(2) lit. a) EMCR, it is therefore necessary that the rights could in themselves constitute a business and that one can clearly attribute certain sales or revenues to them.[35]

other means, of direct or indirect control of the whole or parts of one or more other undertakings.

2. Control shall be constituted by rights, contracts or any other means which, either separately or in combination and having regard to the considerations of fact or law involved, confer the possibility of exercising decisive influence on an undertaking, in particular by:

(a) ownership or the right to use all or part of the assets of an undertaking;

(b) rights or contracts which confer decisive influence on the composition, voting or decisions of the organs of an undertaking."

[31] See Mestmäcker E.-J. and Veelken W., *supra* n. 8, note 2 to Section 37 GWB.

[32] See *supra* B.1.5. (a).

[33] *Commission Notice on the concept of undertakings concerned*, OJ C 66 [1998] (emphasis added).

[34] Emphasis added.

[35] See also Henschen, in Schulte (2005), *supra* n. 16, at pp. 285–286; Ulshöfer M. (2003): *Kontrollerwerb in der Fusionskontrolle, Eine Untersuchung im europäischen, deutschen und US-amerikanischen Fusionskontrollrecht,* Nomos, Baden-Baden, pp. 55–56.

Further indications are provided by the Commission's Notice on the concept of concentration. Paragraph 11 of that Notice provides: "The object of control can be one or more undertakings which constitute legal entities, or the assets of such entities, or only some of these assets.[[36]] *The assets in question, which could be brands or licences*, must constitute a business to which a market turnover can be clearly attributed."[37] Commentators have argued that, in the example of the acquisition of a renowned brand, this condition is met if one can expect that future products distributed by the transferee under the trademark will also be sold due to the name recognition of the brand. This has been linked to the requirement that, due to the acquisition of the brand, the acquirer is able to enter into an existing market position.[38]

However, as opposed to German case law,[39] it appears that, to date, no European merger decisions have been based on the finding of a concentration solely due to the acquisition or other transfer of an IP right or a related right.[40] It further appears that decisions analogous to the BGH's *Warenzeichenerwerb* judgment, or the recent *National Geographic* decisions of the FCO and OLG Düsseldorf, therefore do not (yet) exist. In light of the requirement, formulated in the relevant Commission Notices (i.e., the Notice on the concept of concentration and the Notice on the concept of undertakings concerned), according to which brands or licences may constitute separate businesses and therefore assets for purposes of 'control', if a market turnover may be attributed to them, it is unclear whether the FCO's *National Geographic* reasoning might apply under European merger control law.[41] Be that as it may, at least for IP rights to which turnover can be clearly attributed, there is European case law indicating that the transfer of a licence or IP right may qualify as an acquisition of control. However, all decisions dealing with the transfer of intangible goods, such as patents, licences and other know-how,[42] have also involved the transfer of other (tangible) assets

[36] In this connection, the Notice cites the *Zürich/MMI* Decision of 2.4.1993, M.286, OJ C 73 [1999].

[37] *Commission Notice on the concept of concentration*, OJ C 66 [1998] (emphasis added). See also Henschen, in Schulte, *supra* n. 16, at pp. 285–286.

[38] See Henschen, in Schulte, *supra* n. 16, p. 286.

[39] See B.1., *supra.*

[40] See also Staudenmayer D. (2002): *Der Zusammenschlussbegriff in Artikel 3 der EG-FusionskontrollVO,* FIW, Koln, p. 91; Henschen, in Schulte, *supra* n. 16, at p. 286.

[41] Note that the FCO has considered it irrelevant that, prior to licensing, no sales/revenues could be attributed to the 'National Geographic' brand in relation to a German edition. The OLG Düsseldorf disagreed and reversed. As noted above, the FCO has appealed to the BGH, where the matter is still pending (docket no. KVR 32/05). See *supra* B.1.5.

[42] For patents, licences and other know-how, examples from the case law include: *Zürich/MMI,* Decision of 2.4.1993, M.286, OJ C 66 [1998], para. 5; *AT&T/IBM Global Network,* Decision of 22.4.1999, M.1396, OJ C 287 [1999], para. 5. For decisions relating to other rights, see, e.g,, *Delta Air Lines/Pan Am,* Decision of 13.9.1991, M.130, OJ L 289 [1991], para. 3; *CGEA/NSC,* Decision of 21.5.1996, M.748, OJ C 116 [1996], para. 7; *Agfa-Gevaert/Sterling,* Decision of 15.4.1999, M.1432, OJ C 73 [1999], para. 5.

or other kinds of acquisition (such as the acquisition of shares).[43] For this reason, it remains debated whether the mere transfer of an IP right (without other assets or rights) may qualify as an acquisition of control.[44]

It is worth mentioning that, under European merger law as opposed to German law, the mere acquisition of an asset (or part of the assets) of an undertaking without the acquisition of control does not qualify as a concentration. However, in the course of the assessment of whether control through an asset acquisition has been acquired, the test applied is similar to the German law test relating to the acquisition of parts of assets, which inquires whether those parts of assets are substantial: while in the case of an acquisition of parts of assets the EMCR does not explicitly require substantiality of those assets,[45] the EMCR requires that the acquisition confers control over an undertaking.[46]

2.2. Case Law

As mentioned, European case law has not yet dealt with the question of whether the mere acquisition or other transfer of an IP right or a related right such as a licence may qualify as an acquisition of control and therefore as a concentration. There is, however, a substantial amount of case law dealing with the question of whether the transfer of certain assets and the corresponding activities (business areas, *etc.*) qualifies as a concentration.[47] Commentators have reported that the Commission has declared in informal preliminary discussions that it takes a pragmatic, market- and effects-driven approach (rather than a dogmatic position) to the question of an acquisition of parts of an undertaking; in practice the Commission has announced that it will analyze the competitive content, i.e., the market effects, of such an

[43] See also Staudenmayer D. (2002), *supra* n. 40, at p. 91.

[44] See, e.g., Fezer, *supra* n. 16, at pp. 847, 848 (arguing that the mere acquisition/transfer of a trademark can qualify as an asset acquisition and therefore an acquisition of control for concentration purposes); Immenga, in Immenga U. and Mestmäcker E.-J. (1997), *EG-Wettbewerbsrecht,* Munich, vol. I, note 41 to Article 3 EMCR (qualitative decision depending on whether the asset in question has a significant separate economic significance on the market; trademarks and licences qualify if a market turnover is clearly attributable to them); Knöpfle, *supra* n. 17, at p. 472.

[45] See Article 3(2)(a) EMCR.

[46] See Karl M. (1996): *Der Zusammenschlußbegriff in der Europäischen Fusionskontrollverordnung, Eine Untersuchung unterBerücksichtigung der Entscheidungspraxis der Kommission der Europäischen Gemeinschaften,* Nomos, Baden-Baden, p. 204.

[47] See, e.g., *Henkel/Nobel,* Decision of 23.3.1992, M.186, OJ L 96 [1992]; *British Airways/Dan Air,* Decision of 17.2.1993, M.278, OJ L 68 [1993]; *Bosch/Allied Signal,* Decision of 9.4.1996, M.726, OJ L 155 [1996]; *RWE-DEA/Hüls,* Decision of 11.6.1998, M.1174, OJ C 148 [1998]; *Continental/ITT,* Decision of 18.9.1998, M.1292, OJ C 385 [1998]; *Kodak/Imation,* Decision of 23.10.1998, M.1298, OJ C 17 [1999]; *Dillinger Hüttenwerke/Saarstahl/Cokerie de Carling,* Decision of 17.3.2004, M.3376, OJ C 97 [2004].

acquisition, and that it will take action in the case of asset acquisitions that allow the acquirer to take over an advanced market position.[48]

In its decisions, the Commission has generally not discussed the question of whether the transferred assets constituted business areas to which a certain market turnover could be attributed.[49] As an example, this criterion raised in the Commission's Notice on the concept of concentration and in the Notice on the concept of undertakings concerned was only implicitly discussed in *Siemens/Bosch Telecom* in the context of the composition of the acquired business area. The case dealt with the acquisition of the entire R&D department of Bosch Telecom in the area of GSM mobile phones, which consisted of more than 300 employees, including all offices, laboratories and certain facilities. Bosch also transferred all development results and development rights such as know-how as well as certain IP rights and rights of use in connection with mobile phones. Siemens entered into all contractual positions of Bosch relating to raw materials and preliminary products. Siemens also acquired a right to use the 'Bosch' trademark relating to mobile phones for a certain period.[50]

However, in its *Unilever/Diversey* Decision, the Commission did address the 'specific market turnover' criterion. Unilever had purchased the business for chemical purifying agents for institutional and industrial clients outside North America from Diversey through an acquisition of assets. The Commission determined that the transaction constituted a concentration because a specific turnover on the market could be attributed to the acquired business area.[51]

Most cases of transfers of IP rights or related rights have also included the acquisition of entire business areas and/or tangible assets.[52] For the Commission, there was therefore little incentive to discuss the specific requirements that must be fulfilled for a transfer of IP rights to constitute a concentration. A look through the case law reveals that the acquisition of a part of a business in the form of separate assets that do *not* in themselves compose a business area have rarely come before the Commission.[53]

[48] See Henschen, in Schulte, *supra* n. 16, at p. 286.

[49] See, e.g., *Continental/ITT,* Decision of 18.9.1998, M.1292, OJ C 272 [1998], para. 6.

[50] See *Siemens/Bosch Telecom,* Decision of 28.4.2000, M.1836, OJ C 91 [2000], para. 5.

[51] See *Unilever/Diversey,* Decision of 20.3.1996, M.704, OJ C 113 [1996], para. 5: "It forms a separate business to which its market turnover is clearly attributed. The acquiring of control therefore creates a concentration under Art. 3 of the Merger Regulation."

[52] Regarding patents, licences and other know-how, see *Boeing/McDonnell Douglas,* Decision of 30.7.1997, IV/M.877, OJ L 336 [1997], (para. 6: no discussion of which factors exactly led to the assumption of control acquisition); *Zürich/MMI,* Decision of 2.4.1993, M.286, OJ C 66 [1998], paras. 1, 5; *AT&T/IBM Global Network,* Decision of 22.4.1999, M.1396, OJ C 287 [1999], para. 5. For other rights, see *Delta Air Lines/Pan Am,* Decision of 13.9.1991, M.130, OJ L 289 [1991], para. 3; *CGEA/NSC,* Decision of 21.5.1996, M.748, OJ C 116 [1996], para. 7; *Agfa-Gevaert/Sterling,* Decision of 15.4.1999, M.1432, OJ C 73 [1999], para. 5.

[53] See, e.g., *Zürich/MMI,* Decision of 2.4.1993, M.286, OJ C 66 [1998]; *Terra/ICI,* Decision of 19.12.1997, M.1057, OJ C 32 [1998]; *AT&T/IBM Global Network,* Decision of 22.4.1999, M.1396, OJ C 287 [1999]; *Agfa-Gevaert/DuPont,* Decision of 11.2.1998, M.986, OJ L 211 [1998];

In *Delta Air Lines/Pan Am,* the Commission determined that the transfer of a number of assets from the transatlantic business of Pan Am was a notifiable concentration.[54] This business consisted to a large part of certain routes and the corresponding slots and airport usage rights.

In *Blokker/Toys 'R' Us II,*[55] Blokker took over from Toys 'R' Us assets such as furniture and other inventory of nine branches and was granted, in a franchise agreement, the exclusive right to use the corresponding trademark in the Netherlands. The Commission found that this constituted a concentration because each branch could be attributed a turnover: "According to Article 3(1)(b) of the Merger Regulation, a concentration arises when one undertaking acquires direct or indirect control of the whole or parts of another undertaking. Article 3(3) defines the element of control as constituted by rights, contracts or any other means which confer the possibility of exercising decisive influence on an undertaking, in particular by ownership or the right to use all or part of the assets of an undertaking. [. . .] Therefore, acquisition of control is not limited to cases where a legal entity is taken over but can also happen through the acquisition of assets. In this situation *the assets in question must constitute a business to which a market turnover can be clearly attributed.*"[56]

In *ABB Lummus/Engelhard/Equistar/Novolen,*[57] the Commission had to deal with the transfer of mostly IP rights. The Commission determined that the "business being sold by BASF/Targor to ABB Lummus/Equistar does not represent a corporate entity, but consists of assets (principally intangible assets) related to PP technology licensing".[58] However, since the Commission qualified the transaction as a concentration in the form of an acquisition of joint control by ABB Lummus and Equistar of Novolen, it did not have to draw any conclusions as to whether the transaction might qualify as an acquisition of control.

Solectron/Ericsson Switches, Decision of 29.2.2000, M.1849, OJ C 73 [2000]; *Solectron/Nortel,* Decision of 31.5.2000, M.1968, OJ C 130 [2000].

[54] *Delta Air Lines/Pan Am,* Decision of 13.9.1991, M.130, OJ L 289 [1991], para. 7.

[55] *Blokker/Toys 'R' Us II,* Decision of 28.6.1997, M.890, OJ C 363 [1998].

[56] *Idem*, para. 13 (emphasis added).

[57] *ABB Lummus/Engelhard/Equistar/Novolen,* Decision of 25.9.2000, M.2128, OJ C 187 [2001].

[58] *Idem*, para. 7.

C. Intellectual Property Rights and the Criteria for the Assessment of a Concentration

1. Germany

1.1. Section 36 GWB

Section 36 GWB contains the material criteria for the assessment of a concentration. If a concentration is expected to create or strengthen a dominant position, it will be prohibited by the FCO unless the participating undertakings prove that the concentration will also lead to improvements of the conditions of competition, and that these improvements will outweigh the disadvantages of dominance.[59]

1.2. Case Law

It lies in the nature of IP rights that their owners may exclude others from their use and use them as a means of competition. Such use may create a tension *vis-à-vis* competition law.[60] Although the mere existence or ownership (as owner or licensee) of an IP right does not allow an inference of a dominant position, in certain instances the existence, ownership and/or use of IP rights may constitute an important aspect to be considered in determining whether their owner or licensee has such a position[61] (see a) *infra*). In particular, the existence and use of IP rights may operate as a barrier to entry and thereby serve as evidence that a dominant position in the relevant market is created and/or strengthened (see b) *infra*).

[59] Section 36 reads as follows:
"Principles for the Appraisal of Concentrations
(1) A concentration which is expected to create or strengthen a dominant position shall be prohibited by the Federal Cartel Office unless the participating undertakings prove that the concentration will also lead to improvements of the conditions of competition, and that these improvements will outweigh the disadvantages of dominance.
(2) If a participating undertaking is a controlled or controlling undertaking within the meaning of Section 17 of the Joint Stock Corporation Act (*Aktiengesetz*) or a group company within the meaning of Section 18 of the Joint Stock Corporation Act, then the undertakings so affiliated shall be regarded as a single undertaking. If several undertakings act together in such a way that they can jointly exercise a controlling influence on another undertaking, each of them shall be regarded as controlling.
(3) If a person or association of persons which is not an undertaking holds a majority interest in an undertaking, it shall be regarded as an undertaking."

[60] See Mestmäcker, *supra* n. 1, p. 261.

[61] See Heinemann, *supra* n. 3, pp. 175–176.

a) IP rights and the creation or strengthening of a dominant position

As has been set out above,[62] there are various decisions under German antitrust law that deal with the question of a merger solely by acquisition or transfer of an IP or related right. The following will therefore focus exclusively on aspects of those decisions, since, as opposed to decisions that also deal with concentrations through other means, they appear best suited to demonstrate the relevance of IP rights for the material assessment of mergers.

In its *W+i Verlag / Weiss-Druck* judgment, the Kammergericht explained that its determination of a strengthening of a dominant position in the relevant market was partly motivated by the grant of publisher and title rights. Through those rights, it was possible to build on a previous market position and to benefit from it.[63]

In its *FRAPAN* judgment, the Kammergericht held that the acquisition of the 'FRAPAN' brand had led to the strengthening of a superior position on the markets for aluminium foil, cling films, freezer bags, breakfast pouches and baking parchment.[64] The acquisition of the trademark had enabled the transferee to enter into the market position that was associated with the 'FRAPAN' trademark which was previously held by the transferor. In addition, the intensity of competition from the transferor had been reduced due to the fact that the transferor planned to exit the market. Even if the acquirer were to follow a different strategy in the use of the trademark and even if it priced the associated goods on a different (cheaper) level, it still benefited from the inherent advertising power of the brand associated with its reputation. Even if the acquirer did not use the brand for some of its products, it was in a position to prevent competition under this brand which might otherwise have been created. The trademark was therefore used by the acquirer partly to improve, partly to maintain and safeguard its market position.

The BGH confirmed this approach.[65] It held that—as opposed to the position expressed in the appellant's complaint—it was irrelevant whether the value percentage of sales under a trademark had changed post-acquisition. The Kammergericht had been right in considering the trademark's significant reputation instead of looking at the acquirer's market share associated with the 'FRAPAN'-branded products in light of lessened pressure from competitors.

[62] See *supra* Section B.1.

[63] KG, Decision of 15.1.1988—Kart I/86—*W+i Verlag/Weiss-Druck*, WuW/E OLG 4095, 4107; see supra B.1.2..

[64] KG, Decision of 23.5.1991—Kart. 13/89—*Folien und Beutel*, WuW/E OLG 4771, 4782/4783; see *supra* B.1.3., bb).

[65] BGH, Decision of 7.7.1992—KVR 14/91—*Warenzeichenerwerb*, WuW/E BGH 2783, 2792/2793; see *supra* II.1.c), cc).

In the FCO's *National Geographic* decision,[66] the licence agreement in question was blocked by the FCO on the basis that it strengthened the publisher's dominant position in the German market for popular science journals. The publisher, Gruner + Jahr, had already held a market share of approximately 60% prior to the transaction, and the addition of National Geographic had increased that share to 75%. The company had already established two leading titles in the market for popular science journals, and the addition of the newly licensed title was held to increase the distance between Gruner + Jahr and its competitors (which merely had market shares between 7% and 9%) rather significantly. Gruner + Jahr's position on the relevant market was therefore strengthened and strategically safeguarded through the concentration. On appeal, the OLG Düsseldorf did not have to deal with the competitive effects of the licence, as the court disagreed with the FCO's finding of a concentration.[67] The matter is currently on appeal before the BGH.[68]

b) IP rights as barriers to entry

In markets with significant barriers to entry, the plausibility increases that incumbents with significant market shares may enjoy a dominant position. At the same time and for the same reasons, the creation, existence and reinforcement of entry barriers in a given market may mandate a closer scrutiny of the associated effects on competition in that market. Moreover, where significant barriers to entry exist, the importance of the 'controlling forces' of remaining competition and of potential competition may be of particular interest.

It is well established that IP rights and associated rights may operate as entry barriers. For instance, paragraph 5 of the FCO's Checklist for the assessment of dominance explicitly addresses the issue of entry barriers arising from IP rights:[69] "Legal Barriers to Entry. Legal provisions may restrict the market entry or use of parameters of undertakings and thereby restrict potential competition in favour of the incumbents. Examples are [. . .]. The same is true for resources in the possession of the incumbents such as . . . patents."[70]

The FCO's *Henkel/Luhns* decision[71] illustrates how these principles may apply in practice. In relation to Henkel's gaining and securing of innovation

[66] FCO, Decision of 2.8.2004—B6-26/04—*National Geographic*, WuW/E DE-V 947; see *supra* B.1.5. (a).

[67] OLG Düsseldorf, Decision of 15.6.2005—VI Kart 24/04 (V)—*National Geographic*, WuW/E DE-R 1504; see *supra* B.1.e), bb).

[68] Docket no. KVR 32/05.

[69] *Market Dominance in Merger Control: Checklist of the Federal Cartel Office,* 1990, reprinted in Langen E. and Bunte H.-J. (2001): *Kommentar zum deutschen und europäischen Kartellrecht,* 9th edition, vol. 2, Neuwied, at p. 2827.

[70] See also Heinemann, *supra* n. 3, at p. 176.

[71] FCO, Decision of 20.9.1999—B3—24511-U-20/99—*Henkel/Luhns*. See also Monopoly Commission, *Hauptgutachten 1998/1999, Wettbewerbspolitik in Netzstrukturen,* pp. 313–314.

leadership against imitating competition, the FCO held Henkel's focused and extensive use of IP rights, i.e. the use of innovations through patents and trademarks, to be of particular importance. The FCO stressed the introduction of the three-dimensional trademark—i.e. a right solely for the shape of a product—through the then new trademark law. It stated that this development had enlarged the possibilities for IP protection in an excessive fashion. One of the main characteristics of Henkel's behaviour, according to the FCO, was the method of sealing off markets by 'ring fencing', i.e. by protecting the entire environment and surroundings of an innovation through the acquisition of blocking rights. Even the smallest patentable element of an innovation (e.g., its shape, chemical formula, preliminary product or manufacturing procedure), including all developments that are not even used in the innovation in question but could be conceived as technological alternatives to produce comparable results, were covered by Henkel's IP rights. Henkel's competitors were therefore deprived of the corresponding rights, methods and uses. Competitors had described Henkel's behaviour as 'mine fielding'. As an example, for its tab-technology alone, Henkel had 60 patents and patent applications. In addition, for this product alone, Henkel used more than 50 trademarks or trademark applications for every conceivable product shape and colour combination. The product 'megaperls' was similarly protected so that the associated successful washing detergent technology could be exclusively used by Henkel. The FCO did not accept Henkel's argument that its strongest competitors, Procter & Gamble and Lever, used similar IP strategies. The FCO accepted that Henkel's competitors held a similarly large amount of IP rights. However, it considered that Henkel had an innovation advantage, as it was not the aggregate number of IP rights that mattered but rather the number of rights that protect the successful products and key technologies.[72] Henkel's IP policy was found to not only constitute a significant obstacle for imitating competitors and for smaller market participants, but also to constitute a significant entry barrier for potential competitors, who could be caught in a thicket of IP rights.[73] With respect to the assessment of a strengthening of an already existing superior market position, the FCO held that recourse to product innovations, Henkel technology and Henkel know-how which was not open to competitors, created a significant competitive disadvantage for 'private brand' manufacturers (Handelsmarkenhersteller).

[72] FCO, Decision of 20.9.1999—B3—24511-U-20/99—*Henkel/Luhns*, paras. 44–45.

[73] Id., para. 46.

2. Regulation 139/2004

2.1. Article 2 of Regulation 139/2004

Article 2 EMCR defines the material criteria for the assessment of a concentration.[74] Article 2(3) EMCR provides that a concentration which would significantly impede effective competition, in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant position, shall be declared incompatible with the common market. Both the European case law and Commission Notices and Guidelines deal with the question of the extent to which IP rights may play a role in the analysis of a significant impediment to effective competition, particularly through the creation or strengthening of a dominant position.

[74] "Article 2. Appraisal of concentrations
1. Concentrations within the scope of this Regulation shall be appraised in accordance with the objectives of this Regulation and the following provisions with a view to establishing whether or not they are compatible with the common market. In making this appraisal, the Commission shall take into account:
(a) the need to maintain and develop effective competition within the common market in view of, among other things, the structure of all the markets concerned and the actual or potential competition from undertakings located either within or outwith the Community;
(b) the market position of the undertakings concerned and their economic and financial power, the alternatives available to suppliers and users, their access to supplies or markets, any legal or other barriers to entry, supply and demand trends for the relevant goods and services, the interests of the intermediate and ultimate consumers, and the development of technical and economic progress provided that it is to consumers' advantage and does not form an obstacle to competition.
2. A concentration which would not significantly impede effective competition in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant position, shall be declared compatible with the common market.
3. A concentration which would significantly impede effective competition, in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant position, shall be declared incompatible with the common market.
4. To the extent that the creation of a joint venture constituting a concentration pursuant to Article 3 has as its object or effect the coordination of the competitive behaviour of undertakings that remain independent, such coordination shall be appraised in accordance with the criteria of Article 81(1) and (3) of the Treaty, with a view to establishing whether or not the operation is compatible with the common market.
5. In making this appraisal, the Commission shall take into account in particular:
— whether two or more parent companies retain, to a significant extent, activities in the same market as the joint venture or in a market which is downstream or upstream from that of the joint venture or in a neighbouring market closely related to this market,
— whether the coordination which is the direct consequence of the creation of the joint venture affords the undertakings concerned the possibility of eliminating competition in respect of a substantial part of the products or services in question."

2.2. Combination of IP right portfolios as strengthening a dominant position—case law

In its *Boeing/McDonnell Douglas* Decision, the Commission explicitly assessed the effects of the IP rights owned by Boeing on competition and competitors.[75] Boeing and McDonnell Douglas (MDC) had entered into an agreement by which MDC would become a wholly owned subsidiary of Boeing.[76] The Commission qualified the transaction as a concentration in the form of an acquisition of control under Article 3 EMCR.[77] Under the heading "Strengthening of Boeing's dominant position", the Commission discussed, *inter alia*, the "[o]verall effects resulting from the defence and space business of MDC." It concluded that "[t]he overall effects resulting from the take-over of MDC's defence and space business would lead to a strengthening of Boeing's dominant position", and cited as one of the reasons "an increase in Boeing's access to publicly funded R&D and intellectual property portfolio".[78] The Commission elaborated on this topic as follows:

> "(b) Access to publicly-funded R&D
> [. . .]
> vi) Intellectual property
> In a high-technology industry such as commercial aircraft manufacturing, intellectual property, whether patented or in the form of unpatented know-how, is extremely important for the competitive potential of the players in the market. The combination of the world's leading manufacturer of commercial aircraft with the world's leading manufacturer of military aircraft will lead to the *combination of two large portfolios of intellectual property*. There are more than 500 published patents which belong to Boeing and might be of relevance for commercial aircraft. MDC is estimated to hold around 150 such patents. 86 Boeing patents and 26 MDC patents could *potentially restrict access to important future technology*. These include the following areas:
>
> — aircraft structures, where considerable R&D has been made in order to produce lighter, more resistant materials allowing for increased aircraft range, speed and payload, as well as extending aircraft life and reducing maintenance costs; it appears that both Boeing and MDC have taken out patents to enable them to exploit certain of such areas exclusively,
> — composites, that is a combination of two or more discrete material constituents, which offer a very important improvement in performance for airframe structures in terms of weight reduction, specific strength and stiffness, fatigue resistance and design flexibility (for example, Boeing's all-composite B-2 wings),

[75] *Boeing/McDonnell Douglas,* Decision of 30.7.1997, Case M.877, OJ L 336 [1997].

[76] *Idem*, para. 5.

[77] *Idem*, para 6.

[78] *Idem*, para. 72. The other reasons enumerated by the Commission in this context were: an increase in Boeing's overall financial resources; an increase in Boeing's bargaining power *vis-à-vis* suppliers; and opportunities for offset and "bundling deals".

> — aerodynamics, where recent innovations contribute to lower fuel costs, less noise on take-off and landing, improved range and speed and shortened development cycles,
> — flight controls, which have been among the areas where the most specular [*sic*] technological progress has been made in recent years; Boeing and MDC have been active in this area, inter alia in the framework of NASA's advanced subsonic technology programme, and Boeing has started patenting technology in the field of fly-by-light,
> — electricity and electronics, which are vital for safety and cost effectiveness and where R&D has been done extensively by both Boeing and MDC, especially through contracts from government agencies.
>
> To sum up, the Commission considers the *combination of Boeing's and MDC's know-how and patent portfolios* to be a *further element* for the strengthening of Boeing's dominant position in large commercial aircraft."[79]

As can be seen from the Commission's reasoning, the extent of IP protection was only one factor in its competitive assessment. Moreover, the Commission emphasized the fact the amount of IP rights could lead to a restriction of market access.[80] The *Boeing/McDonnell Douglas* Decision therefore does not give any guidance as to the relevance of a transfer or combination of IP rights by itself (without the transfer of other assets, *etc.*) for the material assessment of a concentration. As the combination of Boeing's and MDC's IP rights was held to constitute a potential entry barrier, the decision also does not allow any conclusions to be drawn with respect to the importance of IP rights for antitrust analysis where there is no danger that those IP rights may operate as barriers to entry.

The same appears to hold true for other decisions that discuss the relevance of IP rights for competitors. In *Dow Chemical/Union Carbide*[81]—yet another decision that dealt with patents—the Commission discussed the competitive situation post-transaction with respect to catalysts:[82]

> "Dow will obtain joint control, through its 50% share in Univation, of the most successful gas-phase process technology, Unipol, which may in the future be used with Exxon's metallocene catalyst. Most PE producers replying to the Commission's questionnaires consider that the only other leading metallocene catalyst is already owned by Dow. They further consider that the two catalysts are *protected by the leading patents in the field*. This position has not been challenged by the parties. Following the proposed operation the exploitation of these two catalysts will be under the control of Dow, directly in the case of its own metallocene catalysts and indirectly, through Univation, in relation to the Exxon catalysts.

[79] *Idem*, paras. 102–103 (emphasis added).

[80] See also *infra* C.2.4.

[81] *Dow Chemical/Union Carbide,* Decision of 3.5.2000, Case M.1671, OJ L 245 [2001].

[82] In this decision too, the Commission analysed the effects of the existing IP rights for competitors in close connection with an entry barriers discussion. *Idem*, paras. 115–123, for the entry barrier discussion; see also *infra* C.2.4. (a).

> The *intellectual property situation* relating to metallocene catalysts is complex with *over 2300 individual patents* to be considered. A majority of those replying to the Commission's questionnaires considered that the combination of Dow, UCC and Univation will severely reduce the options for companies wishing to have gas-phase process technology with metallocene capability.
>
> As one respondent to the Commission's enquiries put it 'A potential licensee expects the licensor to make available proven technology free of third-party patent rights. The licensee would take a licence from the licensor offering the technology best meeting its requirements. If a licensor cannot meet these requirements due to *intellectual property constraints* the licensee would turn to another licensor that could or if no such licensor is available, amend its requirements or refrain from taking a licence.' Another producer has stated that '. . . the combination of Dow and Union Carbide will not face serious competition in the single-site catalyst technology.' (The reference to Union Carbide has to be understood as meaning Univation).
>
> *Following the concentration*, and in particular following the acquisition by Dow of indirect control of the exploitation of Exxon's metallocene catalyst through its acquisition of UCC's 50% share of Univation, *the new entity will be*, at least for several years, the *only licensor* able to offer both metallocene catalyst capability, that is to offer a package including the possibility of using such a catalyst later, and *legal certainty as to the intellectual property rights*. Under these circumstances potential licensees will have a natural preference for the combined entity's combination of process and catalysts. Details of the competitors are given below.
>
> [. . .]
>
> [W]hile there were two competing metallocene catalyst systems for gas-phase processes there was an incentive for each catalyst owner to seek partners to exploit its product. Once the two catalysts are under the control of single group this incentive will be considerably reduced. [. . .] The parties' natural behaviour will be to develop either one or both catalysts for use with the Unipol process technology. They would have no interest in granting licences to or collaborating with a potential competitor."[83]

These principles apply irrespective of the nature of the IP right. Discussions of the competitive significance of a portfolio combination with respect to *trademarks* can be found in the Commission's *Kimberly-Clark/Scott* Decision[84] as well as in the Court of First Instance's *Seb/Moulinex* judgment.[85] In the latter case, the CFI stated that:

> "[I]t is common ground that the brand is the most important competition factor in the markets concerned and the reputation of the brand is to the advantage of all the products carrying it. Likewise, in order to assess an undertaking's *competition*

[83] *Idem*, paras. 107–114 (emphasis added).

[84] *Kimberly-Clark/Scott,* Decision of 16.1.1996, M.623, OJ L 183 [1996], *passim*. See, e.g., id., para. 5: "KC and Scott will strengthen their market position by combining strong consumer brands and bringing together their considerable production and marketing resources."

[85] Case T-114/02 *Babyliss SA v Commission* ("*Seb/Moulinex*") [2003] ECR II-1279, paras. 343 *et seq*.

> *position*, the Commission may have to take into account its *portfolio of brands* or the fact that it has large market shares in numerous product markets ('the portfolio effect').
>
> In the present case the Commission took the portfolio effect into account. Throughout the contested decision, [. . .] the Commission pointed out that the strength of the combined entity was accentuated by a unique portfolio of brands (whereas its competitors had only a single brand) [. . .]."[86]

2.3. Horizontal Merger Guidelines: hindrance of competitor expansion through the use of IP rights

The Commission's Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (Horizontal Merger Guidelines)[87] give some additional guidance for the relevance of IP rights for purposes of merger control. In paragraph 36 of the Horizontal Merger Guidelines, the Commission discusses the ability of IP rights to restrain competitor expansion:

> "Merged entity able to hinder expansion by competitors
> Some proposed mergers would, if allowed to proceed, significantly impede effective competition by leaving the merged firm in a position where it would have the ability and incentive to make the expansion of smaller firms and potential competitors more difficult or otherwise restrict the ability of rival firms to compete. In such a case, competitors may not, either individually or in the aggregate, be in a position to constrain the merged entity to such a degree that it would not increase prices or take other actions detrimental to competition. For instance, the merged entity may have such a degree of control, or influence over, the supply of inputs or distribution possibilities that expansion or entry by rival firms may be more costly. Similarly, the *merged entity's control over patents* or *other types of intellectual property* (e.g., brands) may make *expansion or entry by rivals more difficult*. In markets where interoperability between different infrastructures or platforms is important, a merger may give the merged entity the ability and incentive to raise the costs or decrease the quality of service of its rivals. In making this assessment the Commission may take into account, inter alia, the financial strength of the merged entity relative to its rivals."[88]

Again, this discussion by the Commission of IP rights and its relevance for competitors of the owner of the respective IP right is closely related to entry barrier considerations.[89]

[86] *Idem*, paras. 343/344 (emphasis added).

[87] *Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings*, OJ C 31 [2004].

[88] *Idem*, para. 36 (emphasis added).

[89] See also *infra* C.2.4., particularly under b), with respect to further mention of the link between entry barriers and IP rights in the Horizontal Merger Guidelines.

2.4. IP rights as barriers to entry

Article 2(1) b) EMCR explicitly mentions “any legal or other barriers to entry” as a relevant factor in the assessment of whether effective competition is impeded by a concentration and is therefore incompatible with the common market. As has already been set out above, the Commission has raised the relevance of IP rights as potential entry barriers in various contexts.

a) Case law

The Commission has recognized that patents and the bundled ownership of other know-how may constitute a cause for the existence of barriers to entry. The Commission’s exposition in the *Boeing/Mc Donnell Douglas* case is exemplary,[90] and there is a significant amount of other case law that contains similar arguments.[91] With respect to patents, for instance, the Commission provided the following considerations in its *Dow Chemical/Union Carbide* Decision:[92]

> “Barriers to entry
> This is not a market that can be easily entered. A licensee has to make very considerable capital investments, up to EUR [. . .]* million to install the PE technology they have purchased. The plant has a life of perhaps 30 years. Potential licensees will therefore take all steps possible to ensure that they make the correct decision in choosing a PE technology package. [. . .]
>
> PE technology is constantly evolving. A potential licensee will require assurance that its licensor has the research and development facilities to improve and upgrade the licensed technology over the life of the plant. A track record in this area is therefore indispensable.
>
> The field of PE technology is covered by a *multitude of patents* covering the process technology, all aspects of the catalysts used and the resins made by the various processes. *A potential licensee will need assurances that the licensor has the right to grant licences and that it will act vigorously to protect these rights* and thus the ability of the licensee to continue to operate its production plant and sell its output.
>
> A licensor must be able to show that its PE technology package works, preferably on an industrial scale. [. . .] Secondly it must be able to demonstrate its commitment to research and development. This will require considerable investment in both laboratories and pilot plants. It should also be able to *demonstrate that it has protected intellectual property rights* and will continue to do so with regard to future developments.

[90] *Boeing/McDonnell Douglas, supra* n. 75.

[91] See, e.g., *Shell/Montecatini,* Decision of 8.6.1994, M.269, OJ C 8 [1994], paras. 88–89; *Voith/Sulzer II,* Decision of 29.7.1994, M.478, OJ L 11 [1997], para. 32; *Crown Cork & Seal/CarnaudMetalbox,* Decision of 14.11.1995, M.603, OJ L 75 [1996], para. 76. See also Immenga, in Immenga U. and Mestmäcker E.-J., *supra* n. 24, vol. I, note 158 to Article 2 EMCR.

[92] *Dow Chemical/Union Carbide,* Decision of 3.5.2000, M.1671, OJ L 245 [2001], paras. 115–123. See also *supra* C.2.2.

> The parties set out the requirements for a successful licensor as follows 'In order to compete in the PE technology market, a prospective licensor must possess or acquire the infrastructure required for a licensing business, including engineering, technical support, marketing, *legal*, sales, catalyst supply and training capability.' [. . .]
>
> The established licensors therefore have a very considerable advantage in that their achievements and record are already in the public domain. Newcomers find themselves in a difficult situation [. . .].
>
> Any competitors (whether existing licensors or merely owners of competing gas-phase process technologies) would face the similar problems in relation to metallocene catalyst capability. *The most important intellectual property rights are held by Dow and Exxon*."[93]

Similarly, the Commission found in *CVC/Lenzing*[94] that a combination of patents may block market entry, thereby contributing to the creation of a worldwide quasi-monopoly on certain technologies through which any remaining competition in that sector would have been eliminated or severely restricted. This would have enabled the parties to act independently of potential competitors and of their customers:[95]

> "Ability effectively to block market entry
>
> On the basis of their *respective patent rights*, Acordis and Lenzing are *in a position to block or significantly delay the entry of third parties* to the lyocell production market. Third parties who might consider marketing lyocell production and processing technology or selling lyocell production lines to potential producers of lyocell are consistently confronted with a danger of violating these patents and of subsequent litigation with the parties. For the same reasons, third parties who could be seen as potential producers of lyocell are reluctant to purchase lyocell production and processing technology or production lines developed by suppliers other than Acordis or Lenzing.
>
> The notified operation will *render it more difficult for third parties to obtain packages of licences* for Acordis' and Lenzing's lyocell production and processing technologies. First, the number of potential licensors will be reduced from two to one; whilst there are currently two potential licensors [. . .] there will be only one potential licensor left after the merger. Secondly, the incentive to grant packages of 'ready-to-operate' licences to third parties will be significantly reduced after the merger; [. . .] the new entity will hold a monopoly in the downstream market for lyocell staple fibres and will thus have no interest in seeing this monopoly challenged by a potential market entrant on the basis of a licence for their own technology. *In view of these effects competition in the development of individual production and processing patents in this market will also be stifled as the number of potential buyers will be reduced*."[96]

[93] *Idem*, (emphasis added).

[94] *CVC/Lenzing,* Decision of 17.10.2001, COMP/M.2187, OJ L 82 [2004].

[95] *Idem*, para. 253.

[96] *Idem*, para. 248/249 (emphasis added).

b) Horizontal Merger Guidelines

The Horizontal Merger Guidelines contain a specific section on entry barriers that also discusses the relevance of IP rights.[97] The link between the entry barrier discussion and the material criteria for the prohibition of a concentration under Article 3 EMCR is provided by paragraph 68 of the Horizontal Merger Guidelines, where, under the heading "Entry", the Commission states: "When entering a market is sufficiently easy, a merger is unlikely to pose any significant anti-competitive risk. Therefore, entry analysis constitutes an important element of the overall competitive assessment." IP rights are then listed as a possible example for an entry barrier in the form of a "technical advantage" or an "established position of an incumbent":

> "Entry
> [. . .]
> Barriers to entry can take various forms:
> (a) Legal advantages encompass situations where regulatory barriers limit the number of market participants by, for example, restricting the number of licences. They also cover tariff and non-tariff trade barriers.
> (b) The incumbents may also enjoy technical advantages, such as *preferential access to* essential facilities, natural resources, *innovation and R&D, or intellectual property rights*, which *make it difficult for any firm to compete successfully*. For instance, in certain industries, it might be difficult to obtain essential input materials, or *patents might protect products or processes*. Other factors such as economies of scale and scope, distribution and sales networks, access to important technologies, may also constitute barriers to entry.
> (c) Furthermore, barriers to entry may also exist because of the established position of the incumbent firms on the market. In particular, it may be difficult to enter a particular industry because experience or reputation is necessary to compete effectively, both of which may be difficult to obtain as an entrant. Factors such as consumer *loyalty to a particular brand*, the closeness of relationships between suppliers and customers, the importance of promotion or advertising, or other advantages relating to reputation will be taken into account in this context. [. . .]"[98]

c) Notice on Remedies Acceptable under the Merger Regulation

The Commission's Notice on Remedies Acceptable under the Merger Regulation[99] contains certain explanations as to the relevance of IP rights as entry barriers. These statements are in line with the views expressed by the Commission in its Horizontal Merger Guidelines:

[97] With respect to the discussion of IP rights and entry barriers in the Horizontal Merger Guidelines, see also *supra* C.2.3.

[98] *Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings*, OJ C 31 [2004].

[99] *Commission Notice on remedies acceptable under Council Regulation (EEC) No. 4064/89 and under Commission Regulation (EC) No. 447/98*, OJ C 68 [2001].

> "[C]ompetition problems can also result from specific features, such as the existence of exclusive agreements, the combination of networks ('network effects') or the *combination of key patents*. In such circumstances, the Commission has to determine whether or not other types of remedy may have a sufficient effect on the market to restore effective competition. [. . .]
>
> The change in the market structure resulting from a proposed concentration can lead to major *barriers or impediments to entry* into the relevant market. Such barriers may arise from control over infrastructure, in particular networks, or *key technology including patents, know-how or other intellectual property rights*. [. . .]"[100]

2.5. Ancillary agreements relating to IP rights: Commission Notice on Ancillary Restraints (2005)

So far, the discussion of the principles relating to the relevance of IP rights for material merger control in Europe has dealt with examples of when IP rights may create or strengthen a dominant position and/or significantly impede effective competition. However, the Commission has recently published a (revised) Notice on restrictions directly related and necessary to concentrations (Notice on Ancillary Restraints)[101] that also deals with IP-related aspects of concentrations that are considered *not* to create material problems. In the Notice on Ancillary Restraints, the Commission lays out principles for admissible ancillary restrictions to a concentration. It includes a discussion of the granting of licences in general, and of IP right licensing in particular.

The Merger Regulation provides, in Article 6(1)(b) and in Articles 8(1) and (2), that a decision declaring a concentration compatible with the common market shall be deemed to cover restrictions directly related and necessary to the implementation of the concentration. For a restriction to qualify as "directly related to the implementation of the concentration", it must be closely linked to the concentration itself, whereas it is not sufficient that an agreement has been entered into in the same context or at the same time as the concentration. The agreement in question has to be "necessary to the implementation of the concentration". This means that, in the absence of the agreement in question, the concentration could not be implemented or could only be implemented under less certain conditions, at substantially higher costs, over an appreciably longer period or with significantly greater difficulty. Applying these criteria to the licensing of IP rights and know-how, the Commission has laid out the following principles its Notice on Ancillary Restraints:

> "Licence agreements
>
> The transfer of an undertaking or of part of it can include the *transfer* to the purchaser, with a view to the full exploitation of the assets transferred, *of*

[100] *Idem*, paras. 26, 28 (emphasis added).

[101] *Commission Notice on restrictions directly related and necessary to concentrations*, OJ C 56 [2005].

> *intellectual property rights or know-how*. However, the vendor may remain the owner of the rights in order to exploit them for activities other than those transferred. In these cases, the *usual means* for ensuring that the *purchaser* will have the full use of the assets transferred is to conclude *licensing agreements* in his/her favour. Likewise, where the *vendor* has transferred intellectual property rights with the business, she/he *may still want to continue using* some or all of these rights for activities other than those transferred; in such a case the purchaser will grant a licence to the vendor.
>
> *Licences of patents, of similar rights, or of know-how, can be considered necessary to the implementation of the concentration*. They may equally be considered an *integral part* of the concentration and, in any event, *need not be limited in time*. These licences can be simple or exclusive and may be limited to certain fields of use, to the extent that they correspond to the activities of the undertaking transferred.
>
> However, *territorial limitations* on manufacture reflecting the territory of the transferred activity are *not necessary* to the implementation of the operation. As regards licences granted by the *seller* of a business to the buyer, the seller can be made subject to territorial restrictions in the licence agreement under the same conditions as laid down for non-competition clauses in the context of the sale of a business.
>
> *Restrictions in licence agreements going beyond the above provisions*, such as those which protect the licensor rather than the licensee, are *not necessary to the implementation* of the concentration.
>
> Similarly, in the case of licences of *trademarks, business names, design rights, copyrights or similar rights*, there may be situations in which the vendor wishes to remain the owner of such rights in relation to activities retained, but the purchaser needs those rights in order to market the goods or services produced by the undertaking or part of the undertaking transferred. Here, the *same considerations as above apply*."[102]

D. The role of intellectual property rights in accepting commitments and imposing conditions and obligations

1. Germany

1.1. General remarks

In 1999, the sixth amendment to the GWB *(6. GWB-Novelle*) entered into force. It created the possibility for the FCO to allow concentrations subject to conditions and obligations (*Bedingungen und Auflagen*). Prior to the sixth amendment, the FCO had to rely on undertakings and commitments on the part of the undertakings which were agreed upon in the form of agreements

[102] *Idem*, paras. 27–31 (emphasis added).

under public law without a legal basis in the GWB, which led to a variety of problems.[103]

In pertinent part, the relevant provision—Section 40(3) GWB—reads as follows: "The clearance may be granted subject to conditions and obligations. These shall not aim at subjecting the conduct of the participating undertakings to a continued control." This wording remains unaffected by the seventh amendment to the GWB (*7. GWB-Novelle*), which entered into force on 1 July 2005. Therefore, under the GWB there is a statutory preference for so-called structural conditions and obligations which do not require the control of an undertaking's behaviour, and continued supervision of an undertaking's conduct is not permissible.[104] This is in contrast to European merger control law, which does not contain a statutory prohibition of continuous monitoring of conduct and therefore grants greater discretion with respect to behavioural commitments.[105]

Under German law, the test for distinguishing between an inadmissible ongoing control of conduct (*laufende Verhaltenskontrolle*) and other permissible conditions and obligations is based on whether no further management decisions are required to do away with the competition concerns: if, for instance, in the case of structural remedies only one act is required to make a concentration compatible with the material merger laws (e.g., a sale of shares or assets), the remedy will be in compliance with Section 40(3) GWB.[106]

The relevant remedies can be distinguished as follows:[107]

— *Divestiture commitments or divestiture conditions/obligations*. Such divestitures may concern certain shareholdings, parts of undertakings or businesses, and/or assets or parts of assets. In German practice, the FCO's practical emphasis and preference with respect to merger remedies clearly is on divestiture commitments.[108] This is probably due to the fact that

[103] See Richter, in Wiedemann, *supra* n. 16, pp. 726–729; Mestmäcker and Veelken in Immenga and Mestmäcker, *supra* n. 8, note 66 to Section 43.

[104] The distinction between structural conditions/obligations on the one hand and continued supervision of behaviour on the other is discussed by Veelken W. (2003): *Die Abgrenzung zwischen Strukturauflage und laufender Verhaltenskontrolle in den Freigabeentscheidungen des Bundeskartellamts und bei der Ministererlaubnis,* WRP, p. 692.

[105] See *infra* D.2.

[106] See Schulte, in Schulte, *supra* n. 16, pp. 192–193; Veelken, *supra* n. 104, pp. 712–713; Rust U. (2004): "Fusionskontrolle und Nebenbestimmungen nach dem GWB"*,* 2 *Zeitschrift für Wettbewerbsrecht* 477, at pp. 477, 490–491.

[107] See, e.g., Schulte, in Schulte, *supra* n. 16*,* 2005, p. 174–176; Mestmäcker and Veelken, in Immenga and Mestmäcker, *supra* n. 8, notes 59–62 to Section 40.

[108] See, e.g., Mestmäcker and Veelken, in Immenga and Mestmäcker, *supra* n. 8, note 60 to Section 40; Uhlig T. (1996): *Zusagen, Auflagen und Bedingungen im Fusionskontrollverfahren, Eine Untersuchung zum deutschen und europäischen Recht,* at p. 69; Schulte, in Schulte, su*pra* n. 16, p. 174. See also the following overviews of the FCO's commitments/ conditions practice: Monopoly Commission, *Hauptgutachten XIII 1998/1999—Wettbewerbspolitik in Netzstrukturen*, pp. 316–328 (covering the period from 1975 through 2000); Monopoly Commission, *Hauptgutachten XV 2002/2003—Wettbewerbspolitik im Schatten "Nationaler Champions",* pp. 331–340 (covering the period from 2000–2003); Schulte, in Schulte, *supra* n. 16, pp. 181–192 (covering the period from 1999 through August 2004).

divestitures provide for relatively stable solutions to competition problems. Also, the complexity of supervising the undertakings' compliance is relatively limited when compared to the supervision of the adherence to other conceivable measures. In relation to IP rights, asset sales will typically include intangible assets that belong to the business or are necessary to it, such as patents or licences. In certain industries, IP rights and associated know-how may even constitute the bulk of assets that come into question for a divestiture. For instance, in relation to divestitures in the pharmaceutical industry, it is not uncommon to link the divestiture obligation to certain identified products (with their registration rights), which substantially affects IP rights such as patents and trademarks as well as certain know-how.

— *Limitations of corporate influence*. Such limitations are usually effectuated through means available under corporate law and generally do not include the sale of shareholdings (which qualify as divestitures). For instance, voting rights may be contractually restricted or transferred to a trustee.[109] They normally do not affect IP rights.

— *Market-opening Remedies*. The contents of commitments aimed at the opening (or maintaining the openness) of markets may vary, and largely depend on the industries affected. Most market-opening remedies are used in entry barrier situations. They include the allowance of access to markets, technologies or other facilities for competitors or undertakings in upstream or downstream markets, and aim at committing market leaders to provide other undertakings with certain know-how, thereby lowering the particular entry barriers.[110] In industries characterized by intensive use of IP rights, market-opening commitments may include the duty to grant licences for the IP right or to allow access to know-how.[111] By their very nature, licences for the transfer of IP rights and know-how are remedies that are particularly close to the kind of continued conduct supervision that is prohibited within the meaning of Section 40(3) GWB. Such commitments may therefore be problematic if they restrict the freedom of choice with respect to the identity of transferees or subject the licence fee to an 'adequacy' requirement.[112] Remedies that aim at granting competitors access to patents and know-how have therefore been considered as being dangerously close to a constant supervision of behaviour by the German Monopoly Commission.[113] However, commentators have criti-

[109] Schulte, in Schulte, *supra* n. 16, pp. 175–176; Mestmäcker and Veelken, in Immenga and Mestmäcker, *supra* n. 8, note 61 to Section 40.

[110] See, e.g., Monopoly Commission, *Hauptgutachten VIII 1988/1989—Wettbewerbspolitik vor neuen Herausforderungen,* paras. 537 *et seq*.

[111] Schulte, in Schulte, *supra* n. 16, p. 176; Mestmäcker and Veelken, in Immenga and Mestmäcker, *supra* n.8, note 62 to Section 40.

[112] Mestmäcker and Veelken, in Immenga and Mestmäcker, *supra* n. 8, note 62 to Section 40.

[113] See Monopoly Commission, *Hauptgutachten XIII 1998/1999, Wettbewerbspolitik in Netzstrukturen,* para. 519.

cized the Monopoly Commission's approach as not being in line with reasonable case law: it was argued in this context that, generally, a complete sale and transfer is necessary for a market-opening mechanism to work. Supervision is therefore only necessary until such final sale or licensing has been completed. The danger of a continued supervision could therefore be faced by the authorities through the setting of clear deadlines for such sale or grant of licences.[114]

In deciding which remedy is appropriate for purposes of conditions and/or obligations, the FCO generally has a broad range of discretion. The only legal constraints are the principle of *ex officio* investigation (*Amtsermittlungsgrundsatz*) and the principle of proportionality (*Verhältnismäßigkeitsprinzip*).[115] In practice, however, due to the fact that conditions and obligations modify the notified concentration, it only makes sense for the FCO to prescribe merger remedies if they have previously been accepted and offered by the parties to the transaction. Further, the FCO has to ensure that the modifications are viable from a business standpoint, that they will be integrated into the business strategies of the parties, and that they will adhere to them.[116]

1.2. Case law

The FCO may combine different kinds of remedies; as an example, limitations of corporate influence and market-opening conditions/obligations are often used in addition to divestiture remedies.

a) Divestitures

Since they address the structure of a notified concentration and of the markets affected, divestitures are usually less prone than other remedies to infringe the prohibition of continued supervision of conduct contained in Section 40(3) GWB. However, every structural condition/obligation necessarily mandates certain measures, and thus determines the conduct, of the affected undertakings.[117] As explained above,[118] the general test for the distinction between inadmissible control of conduct and permissible remedies is whether significant additional entrepreneurial or management decisions are

[114] See Heinemann, *supra* n. 3, pp. 524–525, note no. 1301. For the European merger law, see also *Commission Notice on remedies, supra* n. 99, at para. 48: "The divestment has to be completed within a fixed time period agreed between the parties and the Commission, which takes account of all relevant circumstances. The package will specify what kind of agreement—binding letter of intent, final agreement, transfer of legal title—is required by what date. The deadline for the divestment should start on the day of the adoption of the Commission decision."

[115] Schulte, in Schulte, *supra* n. 16, p. 179.

[116] *Idem.*

[117] See Rust, *supra* n. 106, p. 490.

[118] See *supra* D.1.a.

necessary in order to comply with the condition/obligation, or whether a single action suffices. In its *E.ON/Ruhrgas* Decision of December 2002, the OLG Düsseldorf dealt with the question of the admissibility of conduct-related obligations.[119] It reviewed different standards proposed by various commentators but ultimately did not rule in favour of any particular standard. The court took the view that measures aiming at doing away with barriers to entry, such as allowing access to upstream or downstream markets, can lead to an inadmissible continued supervision of conduct within the meaning of Section 40(3).[120] The decision has partly been criticised as overly broad.[121]

For instance, divestiture remedies with respect to IP rights and related rights were the subject of decisions in the fields of publishing and dental technologies. In its "*Axel Springer/Top Spezial*" decision, the FCO demanded the divestiture of certain journals, including all title and publication rights.[122] Another example of a divestiture of professional journals, including all rights and assets necessary for the continuation of the journals, is the FCO's decision in *SV-C/Weka/Franchise-Verlag*.[123] In its *Dentsply/Degussa* decision,[124] the FCO found that the concentration would lead to the strengthening of a dominant position on the market for EM-alloy and that it could only be cleared subject to divestiture remedies which, according to the FCO were necessary and sufficient but did not lead to a continued supervision of conduct: both the alloy business of Dentsply and the entire product line 'Carat' (for the EEA), including the 'Carat' trademark, had to be disposed of in order to avoid a prohibition of the transaction.

b) Market-opening remedies

Market-opening obligations hardly come alone: the case law dealing with merger remedies through IP-related market opening mechanisms usually also contains certain divestiture elements. For example, in *Mannesmann/Kienzle*, the FCO did not block the acquisition of shares in Kienzle Apparate GmbH through Mannesmann AG because the parties had given commitments that addressed the anticipated strengthening of Kienzle's dominant position on the market for mechanical tachographs through the additional financial resources of the Mannesmann group. The parties committed themselves to granting licences for IP rights and construction know-how for partly

[119] The decision dealt with this question in the context of a ministerial authorization under Section 42 GWB. However, the legal issue of distinguishing admissible from inadmissible conditions/obligations is the same under Sections 40 and 42.

[120] OLG Düsseldorf, Decision of 16.2.2002—Kart 25/02 (V)—*E.ON/Ruhrgas II*, WuW/E DE-R 1013, 1026.

[121] See, e.g., Rust, *supra* n. 106, p. 491.

[122] FCO, Decision of 27.9.2000—B6-88/00—*Axel Springer/Top Spezial*, paras. 26–27.

[123] FCO, Decision of 22.8.2001—B6-56/01—*SV-C/Weka/Franchise-Verlag*, paras. 44–52.

[124] FCO, Decision of 27.9.2001—B4-69/01—*Degussa Dental*, WuW/E DE-V 493, paras. 90–94.

electronic hybrid tachographs to domestic tachograph manufacturers. They also agreed to sell Kienzle's stake in VDO-Argo Instruments Inc., USA.[125]

In its *ASK/Rexnord* decision, the FCO did not prohibit the acquisition of a majority stake in Amstadt-Siemag-Kette GmbH (ASK) through Rexnord GmbH, despite the fact that both undertakings competed in the field of chains, and despite the fact that Rexnord had a strong, patent-based position in a certain market that was strengthened by the takeover of ASK. To avoid a prohibition, Rexnord agreed to offer to interested third parties certain identified production machines as well as licences for technical support measures at fixed prices which were to be assessed by an expert. The commitment aimed at providing incentives to third parties to enter into the market for a certain product.[126]

In *Federal Mogul/Alcan*,[127] in addition to divestiture remedies, the FCO imposed an obligation to grant interested undertakings a patent and distribution licence under the same conditions as in a reference agreement. The concentration would have created a dominant position of Federal Mogul (the largest manufacturer of piston rings) on the market for high-speed Diesel car engines. In Germany, Federal Mogul was the sole provider of piston rings for such engines, as the firm had a patent for a certain surface treatment of such rings. In light of the concentration and its effects, Federal Mogul undertook to open up the patent and grant licences to interested undertakings. Prior to the FCO's clearing decision, one such licence agreement had already been concluded with the largest piston provider, Mahle GmbH. The FCO's decision to clear the concentration was subject to the additional condition that Federal Mogul would sell its shares in König KG GmbH & Co. (Austria) to an independent third party.

In *BASF/Bayer Crop Science*,[128] the FCO cleared the acquisition of certain pesticide businesses of Bayer CropScience AG by BASF AG, subject to the condition that an exclusive distribution licence for grain fungicide products would be granted to third parties. Through the acquisition, BASF would have reached a superior position on the market for fungicides for wheat. In order to avoid a prohibition of the transaction, BASF agreed with the FCO that it would grant to interested third parties, for a period of at least five years, an exclusive, sub-licensable distribution licence for certain crop fungicides. The licence would have to cover all of Germany and would have to include further minimum elements such as: rights of use for the brand names; access to all inventory; access to registration rights, particularly through the grant of a

[125] See FCO, *Tätigkeitsbericht 1981/82,* pp. 54, 106.

[126] See FCO, *Tätigkeitsbericht 1981/82,* p. 48.

[127] FCO, Decision of 27.5.1999—B5-34301-U-16/99—*Federal Mogul/Alcan*, *Tätigkeitsbericht 1999/2000,* p. 125. See also Uhlig T. (2000): „Auflagen und Bedingungen in der deutschen Fusionskontrolle, Erste Erfahrungen mit der neuen Regelung, Fusionskontrolle nach der 6, GWB-Novelle", *Wirtshaft und Wettbewerb*, pp. 574–575.

[128] FCO, Decision of 22.5.2003—B3-24200-U-6/03—*BASF/Bayer CropScience*, WuW/E DE-V 801.

'letter of access' for certain ingredients for the purpose of defending the registrations for certain products; access to biological data; access to customer data; the right to manufacture the licensed goods; and, with respect to certain ingredients, the obligation to desist from enforcing certain IP rights, to the extent that such IP rights might prevent the licensee from manufacturing and distributing the licensed products. The FCO considered these remedies to be suitable to prevent the creation of a dominant position for BASF on the domestic market for wheat-treatment fungicides and to prevent a degradation of the market structure: during the term of the licence, the chance that licensees would grant sublicenses will increase. Other competitors might improve their market position and decrease the difference between their market shares and that of BASF. The rights associated with the licence would make possible the development of new products on the basis of certain ingredients, possibly under inclusion of proprietary ingredients and products of the licensee and potential sub-licensees. This might create a counterbalance to BASF's R&D pipeline, so that innovation competition between BASF and other competitors on the market for wheat fungicides will be fostered.

2. European law

2.1. Articles 6(2) and 8(2) of Regulation 139/2004 and general principles

Article 6(2) subparagraph 2 and Article 8(2) subparagraph 2 EMCR address the question of commitments and remedies: "The Commission may attach to its decision [to allow the concentration] conditions and obligations intended to ensure that the undertakings concerned comply with the commitments they have entered into vis-à-vis the Commission with a view to rendering the concentration compatible with the common market." Although Article 6(2) subparagraph 2 and Article 8(2) subparagraph 2 EMCR distinguish between conditions and obligations, this distinction originally has hardly been elaborated on by commentators, and it has not always consistently been made the subject of Commission decisions.[129] Since 2001, however, the Commission's Notice on remedies acceptable provides for a conceptually clear distinction between these instruments.[130]

As opposed to the German law, the European merger control regime does not explicitly prohibit a continued supervision of an undertaking's behaviour through conditions and obligations. The Commission may therefore prescribe conditions and/or obligations that include more of a 'behavioural'

[129] See Richter, in Wiedemann, *supra* n. 16, pp. 601–602; Korthals, in Schulte, *supra* n. 16, p. 385.

[130] *Commission Notice on remedies, supra* n. 99, para. 12.

element than would be allowed under German merger law. However, even under the EMCR, structural remedies and divestitures in particular are the preferred and most widely used remedies.[131] For the most part, this seems to be due to the fact that divestitures are usually best suited to provide a permanent and complete solution to the competitive concerns associated with a concentration. Also, the undertakings' adherence to divestiture commitments and/or obligations is easier for the Commission to monitor.

2.2. Notice on remedies acceptable under the Merger Regulation

In its Notice on remedies,[132] the Commission has laid out principles on modifications, i.e., 'remedies' to concentrations. The Commission describes the purpose of the Notice as follows:

> "The purpose of this notice is to provide guidance on modifications to concentrations, including, in particular, commitments to modify a concentration. Such modifications are more commonly described as 'remedies' since their object is to reduce the merging parties' market power and to restore conditions for effective competition which would be distorted as a result of the merger creating or strengthening a dominant position. The guidance set out in this notice reflects the Commission's evolving experience with the assessment, acceptance and implementation of remedies under the Merger Regulation since its entry into force [. . .]."[133]

In relation to the role of IP rights for remedies that reduce the merging parties' market power, and to restore conditions for effective competition, the Notice contains fairly specific principles drawn from the Commission's practice:

> "Whilst being the preferred remedy, divestiture is not the only remedy acceptable to the Commission. First, there may be situations where a divestiture of a business is impossible. Secondly, competition problems can also result from specific features, such as the existence of exclusive agreements, the combination of networks ('network effects') or the *combination of key patents*. In such circumstances, the Commission has to determine whether or not other types of remedy may have a sufficient effect on the market to restore effective competition.
>
> [. . .]
>
> The change in the market structure resulting from a proposed concentration can lead to major *barriers or impediments to entry into the relevant market*. Such barriers may arise from control over infrastructure, in particular networks, or *key technology including patents, know-how or other intellectual property rights*. In such

[131] See, e.g., *Commission Notice on remedies*, *supra* n. 99, paras. 13, 26.

[132] *Commission Notice on remedies, supra* n. 99. See also Reynolds M. J. and Burnley R. (2005): "Merger Remedies in a New Era of EC Merger Control", in Hawk B., ed., *Annual Proceedings of the Fordham Corporate Law Institute, International Antitrust Law & Policy,* New York, Juris Publ., pp. 397, 403–407.

[133] *Commission Notice on remedies, supra* n. 99, para. 2.

circumstances, remedies may aim at facilitating market entry by ensuring that competitors will have access to the necessary infrastructure or key technology.

Where the competition problem is created by control over key technology, a *divestiture of such technology is the preferable remedy* as it eliminates a lasting relationship between the merged entity and its competitors. *However, the Commission may accept licensing arrangements* (preferably *exclusive* licences without any field-of-use restrictions on the licensee) as an alternative to divestiture where, for instance, a *divestiture would have impeded efficient, on-going research*. The Commission has pursued this approach in mergers involving, for example, the pharmaceutical industry.

Owing to the specifics of the competition problems raised by a given concentration in several markets, the parties may have to offer remedy packages which comprise a combination of divestiture remedies and other remedies that facilitate market entry by granting network access or access to specific content. Such packages may be appropriate to remedy specific *foreclosure problems* arising, for instance, in concentrations in the telecommunication and media sectors. In addition, there may be transactions affecting mainly one product market where, however, *only a package including a variety of other commitments* will be able to remedy the competitive concerns raised by the specific concentration on an overall basis."[134]

2.3. Case law

The distinction between divestitures, influence limitations and market-opening measures referred to above in the discussion of remedies in Germany[135] has fewer merits in the context of European merger control law. This is mostly due to the fact that influence restrictions have been less prominently used on a European scale than in Germany.[136] However, as the distinction makes it possible to identify and distinguish between typically used kinds of remedies, it appears legitimate to continue using it to help to clarify different situations and the corresponding remedies.

As under German law, conditions/obligations and commitments relating to IP rights in the European context usually form part of a package of divestiture commitments. For example, in order to avoid problematic horizontal overlaps, IP-related business activities of two parties to a horizontal merger may have to be disposed of. Such a measure may include know-how, patents, licences, trademarks and so forth. Most Commission decisions on commitments relate to obligations to divest entire undertakings or businesses. Only occasionally are divestiture obligations limited to specific assets such as certain identified IP rights. Where the Commission demands that a market be

[134] *Idem*, paras. 26, 28–30 (footnotes omitted; emphasis added).

[135] See section D.1.

[136] See Mestmäcker and Veelken, in Immenga and Mestmäcker, *supra* n. 8, note 63 to Section 40; Immenga, in Immenga and Mestmäcker, *supra* n. 8, vol. I, notes 14–15 to Article 8 EMCR.

opened or that market openness be maintained, the measures tailored to this effect often include divestiture obligations.

a) Divestitures

Examples of IP divestitures in Europe that included IP rights can be found in such diverse industries as: aviation/telecommunications/aerospace/defence, agricultural and construction machines, travel businesses, foodstuffs, anaesthetics, and liquors, just to name a few.

In its *EADS* Decision,[137] the Commission allowed the creation of EADS, which was to serve as a bundling vehicle for the activities of DaimlerChrysler AG, the French company Lagardère SCA, the French State, and the Spanish entity Sociedad Estatal de Participaciones Industriales (SEPI) in the areas of aviation, telecommunications, aerospace and defence. The merger clearance was subject to commitments. In particular, the contribution of the aerospace business of CASA raised antitrust concerns with respect to two satellite equipment markets. Aérospatiale-Matra Lanceurs ('AML'), a subsidiary of Aérospatiale Matra, was the most important European manufacturer of certain related products and held market shares of up to 70% in certain segments. The Commission also articulated concerns relating to military communication satellites in France due to the fact that a competitor—Alcatel Space—might no longer be able post-transaction to purchase certain products under competitive conditions. The Commission feared that the markets could be blocked to the disadvantage of Alcatel Space Industries and that the new entity would become the sole supplier for the French defence department. The undertakings therefore committed to divest two packages by Aérospatiale-Matra Lanceurs which should enable the purchaser to independently conceptualize, manufacture and distribute antenna reflectors and certain conduits for satellites. The divestiture included the sale of IP rights and the transfer of employees, including technical support and provision of certain equipment.

The Commission's *New Holland* decision[138] dealt with the takeover of Case Corporation through the Fiat subsidiary New Holland, both of which were active in the manufacture of agricultural and construction machines. To remove the Commission's competition concerns, the undertakings committed to divest various product lines and trademarks on all affected markets and to grant access to the distribution networks of Case and New Holland for the acquirer of the sold business areas.

In the case of *Airtours/First Choice*,[139] a bundle of commitments had been offered that aimed at establishing a competing undertaking so that sufficient competitive pressure would evolve. For this purpose, certain assets of the

[137] *EADS*, Decision of 11.5.2000, M.1745, OJ C 66 [2000].

[138] *New Holland/Case,* Decision of 28.10.1999, M.1571, OJ C 130 [2000].

[139] *Airtours/First Choice,* Decision of 22.9.1999, M.1524, OJ L 93 [2000] .

travel operator were to be transferred to a third party, among them trademarks and existing bookings. The Commission, however, considered this commitment to be insufficient on the ground that the channelling of interested purchasers had not been adequately considered and addressed.

In certain cases, the largest part of entire businesses or business units is made up of IP rights. In such instances, the transfer of the IP rights not only accompanies the divestiture of other assets, but is the focus of the merger remedy. For instance, in *Masterfoods/Royal Canin*,[140] Masterfoods, a French subsidiary of Mars Inc., notified the planned takeover of the French pet food company Royal Canin SA. Mars manufactures snacks, ice cream and animal food, among them the brands Pedigree, Advance, Cesar, Whiskas and Sheba, all of which are distributed worldwide, as well as national or regional brands such as Canigou and Brekkies. Royal Canin is a leading player in dried animal food and mainly distributes its products through specialised dealers in the European Union. The Commission's assessment revealed antitrust concerns on the markets for dried animal food in France and Germany. To address these concerns, Mars agreed to sell, *inter alia*, its business units for all of Europe that were associated with the pet food brands of the merged entity, i.e. Advance, Premium, Royal Chien, Playdog and Brekkies.

In *Astra/Zeneca*,[141] the Commission had serious concerns with respect to the markets for betablockers and local anaesthetics. The parties therefore committed to divest the Zeneca business for local anaesthetics by terminating an existing licence agreement with a third party. They also agreed to granting exclusive rights for the distribution of Zeneca's simple betablocker in Sweden and Norway and to transfer all rights of Astra in another form of betablockers to an economically healthy, independent third party.

In *Guinness/Grand Metropolitan*,[142] the Commission approved the merger of two British groups, Guinness and Grand Metropolitan (GrandMet). The approval was given subject to divestitures of renowned brands in order to reduce the 'portfolio effect' inherent in the combination. The merger was intended to create the biggest alcoholic beverages group in the world. It would have lead to the combination of substantial market shares in this area in many European countries and to the holding of a wide range of leading brands. The Commission's inquiry showed that the merger would result in the creation or strengthening of a dominant position in various geographic markets and for various alcoholic products. The undertakings of the parties included the divestment of various major liquor brands of whisky. The divestments were aimed at remedying doubts concerning the parties' strength on the whisky markets in Greece and Spain, and to enable the new owner to develop the brands in other European markets. The transfer of Ainslie, a

[140] *Masterfoods/Royal Canin,* Decision of 15.2.2002, M.2544, OJ C 79 [2002].

[141] *Astra/Zeneca,* Decision of 26.2.1999, M.1403, OJ C 335 [1999].

[142] *Guinness/Grand Metropolitan,* Decision of 15.10.1997, M.938, OJ L 288 [1998]. See also the *Ralston Purina* case, discussed in *infra* D.2.3. (b).

major brand in the Benelux, aimed at removing doubts concerning that market. Regarding Belgium and Luxembourg, the parties also undertook to leave the distribution of Gilbey gin to a third party and to terminate their distribution agreement for Wyborowa vodka. This was considered to be sufficient to meet the Commission's competition concerns regarding the markets in gin and vodka in Luxembourg and Belgium. The parties also undertook to terminate their distribution agreement for Bacardi in Greece in order to resolve the problems created by their 'portfolio power' in view of their strong initial market shares in various categories of spirits. Regarding Ireland, the parties undertook to divest some interests so as to ensure continued competition in the distribution of spirits.

The divestiture of brands, particularly where it is effectuated only in certain geographic markets while the transferor continues to own the brand in other geographic markets, may create certain tensions with respect to 'brand unity' considerations. One solution that has been put forward to resolve the tension between the effectiveness of a brand transfer and the need to maintain brand unity is the so-called 're-branding'. The acquirer of a brand may, for instance, use the acquired brand in connection with an existing proprietary brand or a new (own) brand and, in the course of time, will emphasize this second brand while trying to reduce the importance of the acquired brand, thereby 're-branding' his product.[143]

b) Market-opening remedies

As explained above, the Commission's Notice on remedies provides specific guidance for the licensing of key technologies as an alternative to divestitures.[144] Such licences can mainly serve to decrease entry barriers and to create or maintain market access.[145] In its *Gencor* decision, the CFI held that, generally, merger control law aims at controlling market structures while the control of market conduct generally is to take place under Articles 81 and 82 EC. However,

> "the categorisation of a proposed commitment as behavioural or structural is [. . .] immaterial. It is true that commitments which are structural in nature, such as a commitment to reduce the market share of the entity arising from a concentration

[143] See Berg W. (2003): "Zusagen in der Europäischen Fusionskontrolle"*, Europäische Zeitschrift für Wirtschaftsrecht* 362, 366–367.

[144] See supra D.2.2.. Paragraph 29 of the *Notice on remedies*, *supra* note 99, provides: "Where the competition problem is created by control over key technology, a divestiture of such technology is the preferable remedy as it eliminates a lasting relationship between the merged entity and its competitors. However, the *Commission may accept licensing arrangements (preferably exclusive licences without any field-of-use restrictions on the licensee) as an alternative to divestiture where, for instance, a divestiture would have impeded efficient, on-going research.* The Commission has pursued this approach in mergers involving, for example, the pharmaceutical industry." (emphasis added)

[145] See, e.g., Stoffregen, in Schröter H., Jakob T. and Mederer W. (2003): *Kommentar zum Europäischen Wettbewerbsrecht,* Nomos, Baden-Baden, note 27 to Article 8 EMCR.

> by the sale of a subsidiary, are, as a rule, preferable from the point of view of the Regulation's objective, inasmuch as they prevent once and for all, or at least for some time, the emergence or strengthening of the dominant position previously identified by the Commission and do not, moreover, require medium or long-term monitoring measures. Nevertheless, the possibility cannot automatically be ruled out that commitments which prima facie are behavioural, for instance *not to use a trademark for a certain period*, or to make part of the production capacity of the entity arising from the concentration available to third-party competitors, or, more generally, to grant access to essential facilities on non-discriminatory terms, may themselves also be capable of preventing the emergence or strengthening of a dominant position. It is thus necessary to examine on a case-by-case basis the commitments offered by the undertakings concerned."[146]

Where a concentration leads to control over key technologies, market-opening remedies usually aim at allowing access to technology. In that context, licence agreements may open up to competitors areas protected by patent law. The Commission usually assesses: (i) whether the suggested licence will allow the licensee to overcome the main entry barriers; (ii) whether the licensor is able to circumvent the effects of the licence, for instance by withholding technical support; (iii) whether the licence fees are adequate; and (iv) whether the commitment requires a continued supervision of conduct.[147] The mere opening of markets does not automatically lead to intensified competition. Accordingly there must be a sufficient likelihood that new players will enter the market in order to effectively limit the market power of the new entity.[148] For instance, in *Vivendi/Canal+/Seagram*,[149] the Commission accepted a package of commitments which included access for competitors to Universal's films. Other examples include *Vodafone Airtouch*[150] (access to roaming tariffs and wholesale services) and *BSkyB/Kirch Pay TV*[151] (access to Kirch's technical pay TV platform and Kirch's pay TV services in order to lower barriers to entry on the German pay-TV market and prevent KirchPayTV from leveraging its dominance on this market into the market for digital interactive television services).

The Commission has on various occasions combined structural remedies like divestitures with market-opening mechanisms. Thus, in *Pfizer/Warner-Lambert*,[152] the merger of Pfizer Inc. and Warner-Lambert Inc. (by which one of the largest pharmaceutical companies with revenues of US$27.7 billion was created) received clearance from the Commission because the undertakings had addressed the Commission's competitive concerns—for instance, by

[146] Case T-102/96 *Gencor v. Commission* [1999] ECR II-753.

[147] See Stoffregen, in Schröter, Jakob and Mederer, *supra* n. 145, note 28 to Article 8 EMCR.

[148] See *idem*, note 30 to Article 8 EMCR.

[149] *Vivendi/Canal+/Seagram,* Decision of 13.10.2000, M.2050, OJ C 311 [2000].

[150] *Vodafone/Airtouch,* Decision of 21.5.1999, M.1430, OJ C 295 [1999].

[151] *BSkyB/Kirch Pay TV,* Decision of 21.3.2000, JV.37, OJ C 110 [2000].

[152] *Pfizer/Warner-Lambert,* Decision of 22.5.2000, M.1878, OJ C 210 [2000].

doing away with overlaps in various fields of treatments through divestitures and the granting of licences.

Another example of the licensing of important technologies is the Commission's *Boeing/McDonnell Douglas* Decision.[153] The Commission decided to declare the acquisition of MDC by Boeing compatible with the common market subject to full compliance with undertakings given to the Commission by Boeing. Boeing had made proposals to remedy the strengthening of its dominant position, which was caused by factors such as the combination of DAC's competitive potential with Boeing's dominant position, increased opportunities to conclude exclusive supply agreements which would virtually close off the market, and spin-offs from military activities, particularly R&D for the large commercial jet aircraft business. With respect to the links between the military and the civil aircraft business, Boeing offered to grant competitors non-exclusive licences for patents and related know-how concerning applications of government-funded R&D. It also undertook to submit, over a ten-year period, an annual report to the Commission on non-classified aeronautics R&D projects in which it was involved. Those undertakings aimed at increasing the transparency of the links between military and civil business.[154]

[153] *Boeing/McDonnell Douglas,* Decision of 30.7.1997, M.877, OJ L 336 [1997]. See also C.2.2, *supra*.

[154] The commitments relating to IP rights were dealt with in great detail in the Commission's decision: "Boeing will, upon request by a commercial aircraft manufacturer, licence on a non-exclusive, reasonable royalty-bearing basis, any 'government-funded patent' which could be used in the manufacture or sale of commercial jet aircraft. Boeing will also licence the know-how related to such a patent which is necessary for the full, effective and rapid exploitation of the patent.

'Government-funded patent' means any patent which claims an invention conceived or first actually reduced to practice by Boeing in the performance of one or more of its contracts with the US Government, and which Boeing legally may so license.

Boeing also will license on a non-exclusive, reasonable royalty-bearing basis any blocking patent, including the related know-how as defined in the first paragraph, to another aircraft manufacturer which agrees to similar terms for cross-licensing of its blocking patents.

If Boeing and the other commercial aircraft manufacturer cannot agree on the royalty or whether the patent is a 'government-funded patent' which could be used in the manufacture or sale of commercial jet aircraft or whether the patent is blocking, such disagreement shall be submitted to independent arbitration under terms and procedures to be mutually agreed between Boeing and the other manufacturer.

For a period of 10 years, or until such earlier time as the Commission agreed that similar information is provided pursuant to governmental bilateral agreements or a significant change has occurred in the competitive environment including market share and product line, Boeing will supply to the Commission an annual report of its current unexpired patents which claim an invention conceived or first actually reduced to practice by Boeing in the performance of one or more of its contracts with the US Government. [. . .]

B. Assessment

As regards, the strengthening of Boeing's dominant position resulting from its large increase in the defence and space business, the undertakings submitted by Boeing have the following consequences:

— the commitment on patents gives other aircraft manufacturers access to intellectual property gained by publicly funded R&D and also with respect to blocking patents, meets the general concern about Boeing's increased patents portfolio".

See *Boeing/McDonnell Douglas,* Decision of 30.7.1997, M.877, OJ L 336 [1997], paras. 117, 122.

Similarly, in *Ciba-Geigy/Sandoz,* the Novartis merger was only cleared subject to the licensing of certain IP rights.[155] The Commission allowed the combination of Ciba-Geigy and Sandoz subject to compliance with an obligation in the area of animal health products, a segment on which the parties were considered to be particularly strong due to their control of three out of five existing ingredients. The access to those ingredients was vital for competitors and the parties therefore proposed the following undertaking:

> "Both undertakings hereby declare their willingness on behalf of Novartis AG to provide within a time period of 2 years after the merger constituting Novartis to any serious and appropriate interested party for application in small animal ectoparasiticides for sale in Europe an [*sic*] non-exclusive and unlimited licence for the production of the active ingredient RS and S Methoprene. The licensee will have access to the necessary technical data and the master file. The term of this licence will be fair and reasonable, with the turnover-related licence fee not exceeding 5% and the duration not exceeding 10 years, and with the initial contribution payable to cover costs being offset against the licence fee. If the turnover of the licensee is realized with products containing several active ingredients, the licence fee will be calculated only for the part of the product containing Methoprene. For the time between the conclusion of the contract and the commencement of production by the licensee, but subject to a maximum period of two years, Novartis is willing to supply Methoprene to the licensee on normal market conditions."[156]

The Commission's assessment of this undertaking is instructive:

> "Through the merger, the *parties will acquire an extremely strong position* in the market for SAEs, in particular as regards IGR active ingredients which are critical to future market developments and which they supply to a number of market competitors. [. . .]
>
> The proposed *undertaking enables competitors to purchase a licence* for the production of RS and S Methoprene. *As a result, the adverse competition consequences caused by the combination of the IP-rights for the three IGR active ingredients are avoided.* Methoprene will remain available in the market place for use by competitors in the development of the next generation of IGRs. A complete technical package incorporating the details of the master file will be made available to competitors. This will facilitate the development of Methoprene-based IGRs by competitors. The *granting of licences will therefore maintain market access* for other producers who will have to compete against the other significant advantages of Novartis.
>
> At the same time, *existing competitors will have the ability to free themselves of any supply dependency* on Novartis for Methoprene, whether of the S or RS type. Consequently, in implementing their business strategy in the SAE sector, they will be unconstrained by any supply dependency on Novartis for Methoprene.

[155] *Ciba-Geigy/Sandoz,* Decision of 17.7.1996, M.737, OJ L 201 [1997], paras. 275–280. Note that the pharmaceutical industry is emphasized by the Commission as an example for the licensing of IP rights as opposed to divestitures; see para. 29 of the *Notice on remedies*, *supra* n. 99.

[156] *Ciba-Geigy/Sandoz,* Decision of 17.7.1996, M.737, OJ L 201 [1997], para. 275.

> In the light of the above, the Commission considers that while Novartis will still be the leading SAE producer in Europe and will enjoy a strong market position, it is no longer foreseeable with sufficient probability that the merging parties will be able to behave to a significant extent independently of their competitors."[157]

The Commission also dealt with the question of how to effectively monitor compliance with the remedy:

> "In order to enable the Commission *to monitor* the implementation of the undertaking during the two-year period, the parties are required to submit *a three-monthly report* containing the following information:
>
> — Methoprene licence requests received,
> — Methoprene licence requests granted,
> — where a Methoprene licence request is not granted, the reasons for refusal,
> — details of Methoprene RS and S supplied, either in the form of active ingredients or contained in finished products, to third parties."[158]

There is an abundance of other decisions that also have dealt with market-opening issues in connection with technology and IP questions, and with patents in particular.[159]

In the field of trademarks, the *Nestlé/Ralston Purina* Decision[160] provides a good illustration of the Commission's approach. The notification related to the planned acquisition of control over Ralston Purina, which mainly produced and distributed pet foods through Nestlé, a manufacturer and distributor of a large variety of foods, including pet foods. The Commission articulated competition concerns with respect to, *inter alia*, the market for dried cat food in Spain. Here, the Commission combined an 'up-front buyer' commitment[161] with a 'crown jewels' commitment.[162] The first alternative of the two-pronged commitment consisted of the grant of a licence for the two brand families 'Friskies' and 'Felix' for a duration three years and the transfer of associated assets including production facilities for Spain, plus a

[157] *Idem*, paras. 276–279 (emphasis added).

[158] *Idem*, para. 280 (emphasis added).

[159] See, e.g., *AstraZeneca/Novartis,* Decision of 26.7.2000, M.1806, OJ 1 100 [2004]; *Bombardier/ADtranz,* Decision of 3.4.2001, M.2139, OJ C 63 [2002]; *Glaxo Wellcome/SmithKline Beecham,* Decision of 8.5.2000, M.1846, OJ C 170 [2000]; *Shell/BASF (Project Nicole),* Decision of 29.3.2000, M.1751, OJ C 142 [2000]; *Akzo Nobel/Hoechst Roussel Vet,* Decision of 22.11.1999, M.1681, OJ C 11 [2000]; *MMS/DASA/Astrium,* Decision of 21.3.2000, M.1636, OJ C 285 [2003]; *Glaxo/Wellcome,* Decision of 28.2.1995, M.555, OJ C 31 [1995]; *Alcan/Pechiney (II),* Decision of 29.9.2003, M.3225, OJ C 299 [2003]; *Siemens/Drägerwerk/JV,* Decision of 30.4.2003, M.2861, OJ C 269 [2003]; *Tetra Laval/Sidel II,* M.2416, OJ C 196 [2001]; *Vivendi/Canal+/Seagram,* Decision of 13.10.2000, M.2050, OJ C 311 [2000]; *Dow Chemical/Union Carbide,* Decision of 3.5.2000, M.1671, OJ C 345 [1999]; *Allied Signal/Honeywell,* Decision of 1.12.1999, M.1601, OJ L 152 [2001]; *Hoechst/Rhône-Poulenc (Aventis),* M.1378, OJ C 254 [1999]; *Hoffmann-La Roche/Boehringer Mannheim,* Decision of 4.2.1998, M.950, OJ C 70 [1998].

[160] *Nestlé/Ralston Purina,* Decision of 27.7.2001, M.2337, OJ C 179 [2001]. See also Berg (note 143, *supra*), p. 365.

[161] See *Notice on remedies*, *supra* n. 99, para. 20.

[162] See *Notice on remedies*, *supra* n. 99, paras. 22–23.

subsequent standstill obligation for an additional five years. The licensee would have been obliged, for the duration of the licence, to re-brand the products, while at the same time Nestlé and Ralston Purina would be prevented from exporting the brand into Spain for the duration of the standstill period. The Commission was not convinced by the viability of the first commitment and therefore asked for a second, alternative commitment: the sale of a 50% stake held by Ralston Purina in a joint venture that handled Ralston Purina's entire animal food business for Spain. This alternative sale should include the joint venture's right to use all relevant trademarks on an exclusive basis for three years.

In the *SEB/Moulinex* case,[163] the Commission had to assess the effects of a concentration on the market for small household appliances. SEB, a French manufacturer of such goods, offered its goods under brands such as Tefal, Rowenta Calor and SEB. Moulinex, also a French firm, was a direct competitor of SEB and owned brands such as Moulinex, Krups and Swan. On the European scale, the concentration would have significantly changed market conditions in Germany, Austria, Denmark, Sweden and Norway for various products. The non-French aspects of the concentration were cleared after SEB had offered to grant exclusive licences for the 'Moulinex' trademark for a duration of five years in nine countries. After the expiration of the exclusive licences, SEB would abstain for an additional three-year period from exporting goods under the trademark 'Moulinex' into the countries in question. Similar to the Ralston Purina case, this remedy was tailored to allow licensees sufficient time to gradually introduce their own brand names.

Similar to the field of technology questions, there are many other European decisions on merger remedies that have aimed to address trademark-related concerns about market openness and entry barriers.[164]

E. Summary

The acquisition and other forms of transfer of IP rights, as well as the existence and use of IP rights and related rights can raise various merger control issues. First, the acquisition of an IP right may constitute a concentration and may therefore trigger the duty to notify the transaction to the FCO or to the

[163] *SEB/Moulinex,* M.2621, OJ C 134 [2005].

[164] See, e.g., *Pernod Ricard/Diageo/Seagram,* Decision of 8.5.2001, M.2268, OJ C 16 [2002] ('hold separate' obligation for trademarks under which rum was distributed); *Procter & Gamble/Wella,* Decision of 30.7.2003, M.3149, OJ C 148 [2003]; *Imperial Tobacco/Reemtsma Cigarettenfabriken,* Decision of 8.5.2002, M.2779, OJ C 75 [2002]; *Unilever/Bestfoods,* Decision of 28.9.2000, M.1990, OJ C 311 [2000]; *Rhodia/Donau Chemie/Albright & Wilson,* M.1517, OJ C 162 [1999]; *Kimberly-Clark/Scott,* Decision of 16.1.1996, M.623, OJ L 183 [1996]; *Du Pont/ICI,* Decision of 2.10.1997, M.984.

Commission. Although there are no European decisions to date that deal with the question of whether an IP right transfer in itself (i.e., without a simultaneous transfer of other assets, business units, *etc.*) can qualify as a concentration, there are various indications for this to be the case. Under German case law, the question has been affirmed. In a recent FCO decision, the corresponding legal principle has even been applied to the transfer of a right to which no current turnover could be attributed. This decision was set aside by the OLG Düsseldorf in June 2005, but the FCO, disagreeing with the OLG Düsseldorf, has appealed to the BGH, the decision of which is still pending. Second, with respect to the substantive standards, IP rights mainly become relevant for the assessment of competition concerns in two situations which are often closely connected: (a) where the concentration would lead to a pooling of significant amounts of IP rights (in certain situations also referred to as 'ring fencing'), and (b) where IP rights operate as barriers to entry or reinforce such entry barriers. Third, in the context of merger remedies, the relevance of IP rights primarily comes into play with respect to divestitures of assets, such as IP rights or know-how, and market-opening mechanisms, such as the licensing or other granting of access to vital protected technology, know-how or trademarks. In both instances, the relevance of granting access to IP rights mainly lies in the lowering of entry barriers as a response to antitrust concerns otherwise raised by the concentration.

V

*Patrick Rey**

Intellectual Property and Merger Control

A. Introduction

1. *Accounting for dynamic efficiency* might be of greater importance than the current focus on prices and output volumes.
2. *Difference between static and dynamic analyses*. In standard static analyses of the impact of mergers on prices and output, the general presumption is that, absent synergies or other efficiency gains, a horizontal merger between two competing firms fosters market power to the detriment of consumers and total welfare; in contrast, the impact of market structure on firms' innovative activity is much less clear (Section B). A similar comment applies to non-horizontal mergers (Section C).
3. In any event, *accounting for innovation* might drastically affect the enforcement of merger control (Section D).

B. Market Structure and Innovation

Static merger analyses focus on allocative efficiency through the effects on prices or output. Generally speaking, a merger eliminates the rivalry between the merging firms, which in turn relaxes the competitive pressure that they exert on the remaining market participants. As a result, the merger increases market power in the industry and, as such, it hurts consumers and reduces total welfare. The merger should thus be accepted only if it also generates efficiency gains that are large enough to compensate for the undesirable increase in market power.[1]

In contrast with this clear message, the impact of market structure on dynamic efficiency, through the firms' ability and incentives to engage in R&D, is much more ambiguous.

The Schumpeterian view[2] tends to argue that monopoly is more conducive to innovation. According to this view, the prospect of monopoly rents is the

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[1] Ivaldi *et al.* (2003a) provide an extensive review of this traditional economic analysis.

[2] Schumpeter (1942).

main driver for innovation. In addition, monopolists are in a better position to exploit the economies of scale that are inherent to R&D projects due to the large fixed and sunk costs involved; monopolists are also more likely to have the financial ability to invest and can better manage the risk attached to innovative activity. Conversely, competition dissipates the return on innovation and further exacerbates the risk of expropriation through the dissemination of information and the imitation of innovation.

Other observers emphasize instead the role of competition in fostering innovation and growth.[3] According to this view, competition forces firms to innovate in order to survive; the Darwinian view furthermore points out the role of selection played by the competitive process; also, since competition yields higher volumes of output, it increases the value of process innovation. Finally, a monopolist 'replaces itself' when it innovates; in contrast, a new entrant or another innovator does not take into account this replacement effect and thus has greater incentives to invest in R&D[4] (this 'business stealing' line of argument may actually lead in theory to excessive innovation, compared with what would be socially desirable).

This theoretical debate is matched by a similar ambiguity in empirical findings. I briefly summarize below the main ideas and mention some recent empirical studies.

1. Theory

Market structure can affect innovation and growth in two ways:

— it can affect the expected returns from innovation;
— it can affect the way the firms will behave.

1.1. The value of innovation

Consider for example a process innovation, say, that reduces the cost of producing a good, and denote by π and Π, respectively, the profits that a monopolist would enjoy before and after the innovation. For a monopolist, the net value of the innovation is the incremental profit it generates, that is, the difference $\Pi - \pi$. In contrast, for a new entrant, the value of innovation corresponds to the profits it can get from entering the market and producing at a lower cost than the incumbent firm. If, for example, the innovation is 'drastic', in the sense that the monopoly price lies below the cost of the incumbent firm, then for the entrant the value of innovation is Π and thus

[3] See, e.g., Porter (1990).

[4] This insight is originally due to Arrow (1962).

exceeds, due to the replacement effect, the (net) value of the same innovation for the monopolist. It also can be verified that this comparison remains valid, although to a more limited extent, when the innovation is not drastic.[5]

This first insight suggests that a competitor may face higher incentives to invest in R&D than an incumbent monopolist. Competition may also foster R&D by exerting pressure on the incumbent. To see this, consider the incentives to acquire the exclusive rights over a given innovation. If the incumbent monopolist acquires the innovation, its profit will be Π. If instead the entrant acquires the innovation, the two firms will then compete in an asymmetric duopoly, in which case the entrant and the incumbent will get some profits, Π_E and π_I.[6] Thus, the net value of acquiring the information is $\Pi - \pi_I$ for the incumbent and Π_E for the entrant. Since competition usually leads to lower prices and thus dissipates profits, we should expect the industry profits to be higher in the case of a monopoly ($\Pi > \pi_I + \Pi_E$), which in turn implies that the incumbent is more eager to acquire the innovation ($\Pi - \pi_I > \Pi_E$): the incumbent monopolist's incentive to remain a monopolist is greater than the entrant's incentive to become a duopolist.[7] In addition, the incumbent's incentives to acquire the innovation (e.g., by investing more in a patent race) are increased by the threat of entry (the value of information is now higher than in the previous case: $\Pi - \pi_I > \Pi - \pi$).[8] However, the persistence of monopoly rationale may lead the incumbent to acquire patent rights even though it will not use them (sleeping patents).

One may actually question whether competition might not lead to excessive innovation. Indeed, the social value of innovation relates to its incremental impact and thus accounts for the replacement effects that are ignored by competitors. While this theoretical possibility exists, other aspects tend to mitigate its plausibility. First, firms are usually unable to appropriate the full benefits that their innovation generates for customers; second, innovation is a public good which is thus subject to free-riding problems. Both aspects suggest that innovation activity is likely to be lower than what is socially desirable. Moreover, even when R&D investments might be larger than socially desirable, increasing the R&D effort of one firm would still benefit consumers (at the expense of rival firms); innovation activity is thus unlikely to be excessive under a consumer surplus standard.[9]

[5] See, for example, Tirole (1988), Chapter 10.

[6] As before, a lower case π indicates a firm that did not innovate while a capital Π is used for a firm that benefits from the innovation.

[7] See Gilbert and Newberry (1982).

[8] Indeed, $\pi > \pi_I$ since: (i) the incumbent does not enjoy the innovation in either case, and (ii) the incumbent furthermore faces competition in the second case.

[9] In the case of static allocative efficiency, there is congruence between the consumer surplus and total welfare standards: any increase in prices above costs reduces total welfare as well as consumer surplus; in contrast, in the case of dynamic efficiency, the two criteria may well diverge, and the rate of innovation that maximizes consumer surplus may thus exceed the level that is desirable for the society as a whole.

While introducing *some competition* thus appears to create additional incentives to invest in R&D, *additional competition* may well have the opposite effect, by reducing the expected return on R&D investments. If, for example, a third competitor is likely to enter with some positive probability, the expected profit from innovation is reduced ($\Pi' = (1-p)\Pi < \Pi$, denoting by p the probability of innovation by the third party), and thus both the incumbent monopolist and the entrant face lower incentives to invest in R&D.

In practice, innovation often comes gradually, in a step-by-step manner. Hence, at a given point in time, a firm that has already made progress along the 'innovation ladder' may benefit from a strategic advantage over its competitors. When this advantage is significant, competitors may be discouraged from further running the innovation race, in which case competition may not be very effective in fostering innovation and dynamic efficiency. In contrast, neck-to-neck competition, where several competitors are currently at a similar stage of the innovation ladder, may enhance incentives to invest in R&D in order to jump ahead of the rivals.[10]

1.2. Competition as a disciplining device

As nicely put by John Hicks, the "best of all monopoly profits is a quiet life."[11] In particular, managerial problems may lead the firm to depart from profit-maximization and pursue other objectives. To the extent that adopting innovation often requires changes in the internal organization of the firm, which in turn may affect established rents and perks, one may expect that workers and managers will resist such changes, which in turn reduces the appeal of innovation.

Aghion *et al.* (1999) show, for example, in the context of an otherwise standard Schumpeterian growth model, that the impact of competition depends drastically on the objective pursued by the firms; competition may reduce the rate of introduction of new technologies when firms mainly focus on profits (because competition dissipates the expected return from adopting a new technology) but it may instead foster the pace of innovation when firms are reluctant to innovate (for example, because of internal friction cost); in a competitive environment, firms must then adopt innovation more quickly in order to keep surviving. More recently, Aghion *et al.* (2000) show that cash-constrained firms are more likely to behave according to the latter pattern; thus, the impact of competition on innovation and productivity may be larger when firms rely more prominently on outside finance.

[10] See, e.g., Fudenberg *et al.* (1983) and Aghion *et al.* (2001).

[11] Hicks (1935) at 8.

2. Empirical studies

As this brief discussion makes clear, one cannot rely on theory alone to predict the general qualitative impact of market structure on innovation and dynamic efficiency; we must therefore assess the empirical significance of the contrasted effects mentioned above. Unfortunately, as reported by Michael Katz and Howard Shelanski in a recent article, there as well the main message is rather about the lack of a clear guideline. In short: "Many analyses supported the Schumpeterian view by finding a positive correlation between market concentration and R&D investment. Other analyses, however, found data to show concentration to have a negative effect on innovation."[12]

There are several sources of difficulty. For one thing, common factors may produce apparent, spurious correlations; one must therefore disentangle the impact of these underlying factors from the direct causality links between market structure and innovation. Even this link must be scrutinized with caution: while we are primarily interested here on the causal impact of market structure on innovation, innovation has in turn an obvious impact on market structure.

In addition, many studies are too aggregate; in practice, the firms from the same industry may be confronted with different environments; for example, they may rely more or less on outside finance, or they may be confronted with different types of internal agency problems, and thus react differently to changes in the market conditions; as a result, aggregate studies may fail to provide a clear analysis.

More recently, studies relying on micro panel data have made some progress in addressing these two difficulties. Using U.K. firm-level data, Blundell *et al.* (1995) show, for example, that the rate of innovation is negatively correlated with market concentration. In a parallel work, Nickell (1996) presents evidence that competition is positively correlated with productivity growth. And Nickell *et al.* (1997) show that the positive effect of competition on productivity growth tends to be more pronounced for firms that do not have a dominant shareholder, and which might thus be more subject to internal agency problems.

[12] See Katz and Shelanski (2004) at 37–40. See also Kamien and Schwartz (1975) and Cohen and Levin (1989) for surveys of the first streams of empirical studies on the interaction between market structure and innovation. Scherer (1967) suggests, for example, that large firms tend to have higher rates of R&D and innovate more; Geroski's (1990) industry-level study suggests instead that competition has a dampening effect on innovation.

3. Conclusion

The main message from theory and empirical studies is a rather negative one: no general presumption emerges as to the impact of market structure on innovation and dynamic efficiency. In particular, and in sharp contrast with the presumption that one can draw when focussing on static allocative efficiency, it is not clear that more competition always leads to greater dynamic efficiency. Nor is it obvious that less competition guarantees more innovation and greater dynamic efficiency. At the same time, some progress has been made to identify those factors, such as agency problems, access to external finance, and so forth, that may be useful to better understand the interplay between market structure and innovation. This brief overview thus calls for an attitude that may be more 'open-minded' than that driven by static allocative efficiency considerations, but also calls for a careful analysis of the specifics of the merger case under consideration.

C. Non-horizontal Mergers

The above discussion focused on the impact of product market concentration on R&D incentives and innovation, which sheds useful light on the assessment of horizontal mergers. I now turn to non-horizontal mergers: vertical integration and conglomerate mergers.

1. Vertical integration

In the context of IP and vertical integration, a natural question concerns the impact of vertical integration between R&D and production. An inventor can choose to exploit the innovation itself, or to rely on third parties to do so. In the latter case, several options are available. For example, the inventor can rely on licensing agreements, which may be subject to specific regulations such as the TTBE. In some cases, it may choose to 'give away' the innovation (e.g., this may be a relevant option when diffusing the innovation enhances the use of some of the inventor's other products or technologies). Another solution is vertical integration. When assessing a vertical merger of that kind, one must therefore consider carefully the other possible scenarios. Blocking a merger may indeed lead the firms to adopt alternative options, such as exclusive licensing, which may be less effective for the firms, thereby contributing to discourage innovation efforts, and which may also be detrimental to consumers.

For example, consider a firm inventing a technology that allows the production of a new good. If the firm is not well equipped to develop the good itself, it is efficient for both the firm and consumers to form some kind of relationship with downstream firms that might be in a better position for producing and marketing the good. If the technology owner plans to merge with one downstream firm, the antitrust authority may be concerned that vertical integration may allow the patent owner to 'leverage' its monopoly power from the technology market into the newly created product market. Blocking the merger could however reduce the expected profit generated by the technology and thus the reward for innovation. Thus, even if the technology in question can be regarded as a bottleneck input, i.e., a necessary ingredient for competing effectively in the product market, the authority should be more cautious before intervening, compared with situations where the bottleneck position results, for example, from economies of scale or network externalities rather than from innovation.

Blocking the merger might in addition lead the technology owner to turn to alternative arrangements, such as licensing, which may be less desirable for both the firms and consumers. In particular, prospective licensees will not pay much for the technology if the patent holder cannot commit not to flood the market with licences; for if everyone holds a licence, downstream competition will destroy the profit attached to the new good. The patent holder would thus want to limit the number of licences, but there is a commitment problem: once it has granted a first licence, the patent holder is then tempted to issue further licences, thereby depreciating the value of the first one. Anticipating this, the licensees will not pay as much for the technology: while expropriation is *ex post* profitable for the licensor, it reduces its *ex ante* profit—and thus the expected return from innovation.

One possible solution for the patent owner would be to grant an exclusive right to the first licensee. But in many cases, it might be more efficient to grant several licences for different uses of the technology, e.g., because different downstream firms are best qualified for these alternative usages; yet, it might be difficult to tailor the exclusive rights accordingly, particularly when these 'alternative usages' cannot be spelled out with enough precision or when there is ambiguity. In contrast, integrating one downstream firm solves the commitment problem by ensuring that the patent owner no longer has an incentive to free ride on its own subsidiary, and at the same time it preserves some flexibility and allows the patent owner to grant additional licences for truly alternative usages. In this situation, banning vertical integration might thus lead the patent owner to turn to less desirable solutions to the commitment problem.[13]

[13] See Hart and Tirole (1990) and Rey and Tirole (2004) for a more detailed discussion of these issues.

2. Conglomerate mergers

Section C suggests that switching the focus from static allocative efficiency to dynamic efficiency and innovation drastically challenges the general presumption about the effect of a merger between suppliers of substitute goods or services: while such a horizontal merger is likely to reduce competition in prices and output, the impact on R&D and innovation is less clear. A similar comment applies conversely to mergers between complements. With respect to short-run competition in prices and output, the general presumption—going back to Cournot (1838)—is that a merger between complements avoids double marginalization, thus benefiting both the firms and its consumers; predicting the impact on R&D and innovation is instead a more challenging task.

Consider, for example, a conglomerate firm that enjoys a dominant position in its core market and is also present in an adjacent market where a complementary product is offered (e.g., operating system software and application software). It is sometimes argued that the conglomerate firm may have an incentive to strategically invest in R&D in adjacent markets, in order to discourage competitive efforts (including innovation) by rival producers. On the face of it, this concern seems at odds with the standard intuition that innovation is desirable, that competition should apply to the innovation process as well as to manufacturing processes, and that intellectual property should be protected. While this is broadly correct, there is a twist analyzed by Farrell and Katz (2000): R&D competition in the adjacent market is affected by the fact that the conglomerate firm is dominant in the core market.

Indeed, the higher the value of the good in the core market, the lower the (quality-adjusted) price of the product offered (by the conglomerate or its competitors) in the adjacent segment. This implies that the conglomerate benefits from innovation in the adjacent market in two ways: directly on the adjacent market, particularly if its innovation is superior to those of its rivals; and indirectly through the increase in demand on its core market—even if its own offering on the adjacent market remains inferior to its rivals', as long as it contributes to the competitive pressures exerted on the adjacent market leaders (increased competition in the adjacent market drives down the quality-adjusted price of the complementary product, which in turns makes the core product more attractive). While the direct effect involves no asymmetry with the competitors, the indirect effect exists only for the conglomerate firm.

This spill over effect from the adjacent to the core market increases the conglomerate firm's incentives to engage in R&D in that adjacent market. In turn, these enhanced R&D incentives reduce those of rivals. As a result, as Farrell and Katz (2000) show, the overall welfare impact is ambiguous.[14] The

[14] Requiring the conglomerate firm to share its innovation in the complementary product would not impact the indirect benefit of innovation, which would still exert pressure on rival

ambiguity of this welfare analysis suggests that antitrust involvement is overall unlikely to foster innovation unless one demonstrates that a) the reduction in the independent producers' R&D effort more than offsets the increase in that of the conglomerate, and b) the withdrawal of the conglomerate firm from the adjacent market can be effectively compensated for by entry in that market (e.g., through an effective divestiture and in the absence of economies of scope). Overall, the analysis calls for caution with respect to direct intervention in the competitive market.[15]

D. Merger Control Procedures

Beyond the previous observations, accounting for R&D and dynamic efficiency has some implications for the assessment of merger cases. I briefly point out some of them.[16] A first comment concerns the need to be forward-looking; while this is the case for any merger analysis, it becomes crucial when innovative activity is involved, and may affect the way markets are defined and the way competition is assessed. IPRs can also play a particular role in the choice of remedies.

1. Market definition

What prices should be used for the SSNIP test?[17] When assessing the impact of the increase in the (quality-adjusted) price of the hypothetical monopolist, the prices of the other products should be considered as 'exogenous', but they

suppliers and thus contribute to an enhancement of demand for the core product. However, this duty to share would reduce the direct benefit of innovation on the adjacent market; innovation sharing thus reduces investments by the conglomerate firm (and may eliminate them if the fixed costs of R&D are too large), and raises investments by rivals, with potentially detrimental welfare consequences, especially if the conglomerate firm has substantial R&D expertise and is likely to produce a superior innovation.

[15] Note that such intervention would run counter to the tradition of IPRs, which seeks to resolve the tension between the benefits of competition and the protection of innovation by protecting the innovation from direct imitation, while encouraging rival innovations. Indeed, innovation by rivals plays an important role in the process of keeping prices low, a role that IP law has consistently sought to protect. By contrast, intervention to restrict innovation by the conglomerate firm in the adjacent segment would essentially consist in removing one firm's IP protection in order to protect the innovation of another firm from post-innovation rivalry.

[16] Katz and Shelanski (2004) offer a detailed review of these issues and discuss the US experience.

[17] The magnitude of the price changes is also sometimes questioned. While the SSNIP test usually considers price increases of 5 to 10%, Pleatsikas and Teece (2001) argue that larger changes should be used in industries where innovation routinely yields more important modifications in quality-adjusted prices.

should account for technological evolution; Teece and Coleman (1998) argue that failing to do this leads to excessively narrow market definitions in industries where innovation drives down quality-adjusted prices; Katz and Shelanski (2004), however, point out that this is not necessarily so if the hypothetical monopolist's product is subject to greater technological progress compared to substitute products.[18]

A similar comment applies to the products to be considered. There again, the expected evolution of the market has to be factored in: the products in question should not only include the currently available ones, but also the new products that are likely to appear—or the existing ones that are currently too expensive but may become affordable because of technological progress. While this does not create conceptual problems, it might lead to a difficult exercise in practice—in particular, it tends to place more emphasis on the supply-side.

2. Market shares

Generally speaking, market shares are 'backward-looking': they reflect the past or current position of the merging firms, but not necessarily their ability to exert or maintain market power in the future; this observation is particularly relevant for innovation-driven markets.

To take an extreme example, consider a 'winner-take-all' type of industry, where at each moment the current 'winner' enjoys a quasi-monopoly situation. Market shares are then irrelevant for assessing competition conditions: while there will be a succession of (temporary) monopolies, the key issue concerns the rivals' ability to compete for the next 'prize', and thus the main question should be about how the merger may affect rivals' ability to be the next winner.

Relatedly, when firms compete also (or even primarily) in the development of new technologies, defining market shares may not be a trivial exercise.

3. Assessment

When assessing the possible anticompetitive impact of a horizontal merger, both the US and EC guidelines distinguish 'coordinated' effects from 'unilateral' or non-coordinated effects. The first type of effect, which refers to the impact of the merger on the market participants' ability to engage in some form of explicit or tacit collusion, is probably less of a concern in innovation-

[18] Katz and Shelanski (2004) at 23.

driven markets. Indeed, the characteristics of these markets (in terms of stability, transparency, and so forth) make them less prone to collusion.[19]

Accounting for R&D also affects the assessment of efficiencies. For example, reductions in fixed costs are usually not taken into account when applying a consumer surplus standard to static allocative efficiency. And indeed, in the short-term, prices are driven by marginal costs rather than by fixed costs; a reduction in fixed costs thus benefits firms (and thus total welfare), but this benefit need not be passed through to consumers. In contrast, from a dynamic efficiency standpoint, reducing fixed costs might have a positive impact on the cost of R&D projects and thus contribute to encourage innovative activity.

The discussion in Section C already stressed the need for a careful analysis of the various ways in which complementary assets can be combined: this applies to vertical arrangements between R&D and production, but it applies as well to complementary IP assets: when assessing a proposed merger, one must therefore evaluate the alternative means that are available (licensing, joint ventures, . . .). For example, one can explore whether there are less restrictive means.[20] Conversely, as already noted, blocking a merger or a concentrative joint venture may lead the firms to turn to less desirable alternatives (e.g., an exclusive licence).

3. Remedies

Compared with other (physical) assets, compulsory licensing does not amount to a mere transfer of the asset from one firm to another:[21] the IPR holder can still exploit the technology, either directly or through additional licences. It thus leads to more effective competition than in the case of a physical divestiture. More generally, IPRs offer a broad range of remedies:

— Complete divestiture to a third party, as in the case of a physical asset (the original owner then loses all rights over the innovation); this approach may be favoured when it is important to encourage the new IP owner to exploit the innovation, by protecting it from (direct or indirect) competition by the merged entity.

[19] See, e.g., Ivaldi *et al.* (2003b).

[20] Gugler and Siebert (2004) suggest, for example, that in the semiconductor industry, joint ventures are as effective as mergers in generating innovation efficiencies and less harmful for product-market competition.

[21] As Katz and Shelanski (2004) note, compulsory licensing as a merger remedy differs from a 'duty to deal', where it expropriates the IPR holder's from some of its expected returns; in contrast, compulsory licensing can generate a net benefit for the IPR holder when it is used as a solution

- Even when the property right is transferred to a third party, the merged entity may still be granted a licence so as to allow it to exploit the technology. This preserves or creates some competition in the product market while letting the new owner determine the best way to further exploit the technology (directly or through licensing).
- Exclusive or non-exclusive licensing to a third party; this again makes it possible to maintain or create more or less competition in the product market, but in that case the innovator decides whether to allow the further exploitation of the innovation.

Compared with the case of physical assets, these alternative scenarios thus provide much more flexibility in the design of remedies, which can also be taken into account when assessing the required 'magnitude' of the remedy.

It is sometimes feared that the transfer of intangible assets is a source of conflict and involves costly monitoring. This may be true for R&D units, where human capital plays a key role; but a similar concern would affect other structural remedies as well, as illustrated by the long-lasting dispute between MCI and Cable&Wireless, following the divestiture of the MCI Internet backbone; in both cases, there may be a conflict regarding the physical assets involved and the human resources dedicated to them. In contrast, this concern may be less acute for the transfer of an IPR, particularly if the receiving party pays an upfront price for the right.

VI

Calvin S. Goldman, QC and *Jason Gudofsky*[*]

Canada's Competition Act, Unilateral Conduct and The Licensing of IP Rights: Balancing on a Tight Rope

> ". . . while it is clear that intellectual property laws and competition laws are both intended to promote the development of an efficient economy, the different mechanisms that each employs to achieve this common long-term goal had been viewed as a possible source of tension. Intellectual property laws foster long-term dynamic efficiency gains by providing incentives to invest in the development of valuable works, whereas competition law tends to focus on the achievement of static allocative efficiency by preventing the inappropriate accumulation or exercise of market power with respect to existing products or services. Consequently, there is a danger that the adoption of a competition law focus on shorter-term allocative efficiency goals could adversely affect the incentives to innovate and the long-term benefits to society that flow from the research and development activities which are fostered by the protection of intellectual property rights."[1]

A. Introduction

An intellectual property ("IP") owner's right to exclude third parties from using its IP is a fundamental, perhaps *the* fundamental, aspect of intellectual property rights ("IPRs").[2] At first this right may appear at odds with competition law, which seeks to eliminate structural barriers and other impediments to competition. Stated differently, where IP law creates an exclusive—or monopoly—legal right, competition law may seek to eliminate

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[1] Corley R. (2004): "IP Guidelines and Information Technology in Canada", in *The Antitrust Review of the Americas 2004,* Global Competition Review, at p. 84.

[2] In *Canada (Director of Investigation and Research v. Tele-Direct (Publications) Inc. and Tele-Direct (Services Inc.)* CT-94/3, www.ct-tc.gc.ca/CMFiles/CT-1994-003_0204a_38LFB-472004-7743.pdf?windowSize=popup ("*Tele-Direct*") at p. 32, the Competition Tribunal made the following remarks regarding trade-marks in recognition of the exclusive rights that are conferred by a grant of IP: "Inherent in the very nature of the right to license a trade-mark is the right for the owner of the trade-mark to determine whether or not, and to whom, to grant a license; selectivity in licensing is fundamental to the rationale behind protecting trade-marks."

it.[3] However, this apparent conflict between IP and competition laws does not take into account the underlying goal that directs both. This goal is the maximization of economic efficiency, which may thereby, or eventually, promote consumer welfare. Having said that, the different mechanisms that each employs to achieve this goal of efficiency have sometimes been viewed as a source of tension between IP and competition laws.[4]

IP is accorded special protection under the law because of its inherent public goods nature (i.e., it "starts from the premise that ideas are free as the air—a common resource for all to use as they can and wish"[5]). Unlike tangible property, once the existence, elements, contents or qualities of thoughts and ideas are made known, it is virtually impossible to exclude their unauthorized use. Like other industrialized nations, Canada has adopted IP laws that cover the panoply of IPRs.[6] These laws confirm the proprietary nature of IP. It is as a result of these laws that inventors, creators and owners of IP can appropriate the economic benefits of their *intellectual* output.

At the same time, IP laws can produce certain negative effects. For example, the exclusionary aspects of IP can reduce short-run allocative efficiencies[7] through suboptimal use.[8] Broad IPRs (e.g. in terms of scope or duration) can operate as a barrier to third parties establishing preferred substitutes for the IP. Furthermore, IPRs can be misused, such as where an owner uses its IP to leverage into product areas that are not covered by the grant of exclusivity.

[3] The word "may" is in recognition of the fact that developing a monopoly position is not unlawful under Canadian competition law. Instead, the focus is on how the monopolist uses its monopoly.

[4] Goldman C. S., Corley R. F. D. and Witterick C. L. (2004): "A Canadian Perspective on Intellectual Property Rights and Competition Policy: Striving for Balance and Related Comity Considerations", paper presented at the 31st Annual Conference on International Antitrust Law & Policy, Fordham Corporate Law Institute, October 2004, at p. 7. See also Gotts K. I. and Goldman C. S. (2003): "The Role of Efficiencies in M&A Global Antitrust Review: Still in Flux?", in Hawk B., ed., *Fordham Corporate Law Institute 2002*, New Jork, Juris Publ., at pp. 201–300.

[5] Vaver D. (1997): *Intellectual Property Law—Copyright, Patents, Trade-Marks*, Toronto, Irwin Law, at p. 1.

[6] *Copyright Act,* R.S.C. 1985, c. C-42 (as amended); *Industrial Design Act*, R.S.C. 1985, c. I-19 (as amended); *Integrated Circuit Topography Act*, S.C. 1990, c. 37 (as amended); *Patent Act,* R.S.C. 1985, c. P-4 (as amended); *Plant Breeders' Rights Act*, R.S.C. 1985, c. C-20 (as amended); and *Trade-marks Act*, R.S.C. 1985, c. T-13 (as amended).

[7] Allocative efficiency refers to the optimal allocation of scarce resources to the production of goods and services such that the value a consumer places on the goods or services equals the cost of the resources used in their production. Allocative efficiency "is achieved when the existing stock of goods and productive output are allocated throughout the price system to those buyers who value them most, in terms of willingness to pay or willingness to forgo other consumption", see: Goldman, Corley and Witterick, *supra* n. 4, at p. 7. For a detailed discussion of the relevance of efficiencies to Canadian competition law see Gotts and Goldman, *supra* n. 4.

[8] Gallini N. T. and Trebilcock M. (1998): "Intellectual Property Rights and Competition Policy: A Framework for Analysis of Economic and Legal Issues", in OECD, *Competition Policy and Intellectual Property Rights,* DAFFE/CLP(98)18), pp. 325–364, at p. 326.

The difficult issue for policy makers and competition enforcement agencies is to find the appropriate balance between IP and competition laws. This balance is critical to attaining economic efficiency for the national economy. For example, in the context of patents, failure to give adequate protection to patents could discourage *ex ante* R&D efforts into new or, in the case of an existing patent, improved technologies. Inventors may not be willing to make investments, or at least the same level or types of investments, if their potential economic rewards are substantially reduced or eliminated. Conversely, giving excessive protection to patents could discourage (or act as a real barrier to) *ex post* (or follow-on) R&D and other related investments.[9] It could also have negative effects on allocative-efficiencies if patent owners are able to charge supra-competitive prices owing to the excessive scope and/or duration of patents. The issues are particularly acute and important in royalty charging technology industries where most, if not all, revenues derive from the commercialization and licensing of IP.[10]

Canada's Competition Bureau (the "Bureau") has taken a limited and cautious approach to applying competition laws to areas where there is an IP interface such that the Bureau really only pursues exceptional cases. This is reflected in, among other things, the following:

- the Bureau's practice of distinguishing between the mere exercise of IPRs and something more than the mere exercise of IPRs and applying the general substantive provisions of the *Competition Act*[11] (the "CA") to only the latter conduct;
- the Bureau's confirmation that it does not automatically equate IP to a relevant product market nor to market power; and
- the Bureau's decision to not (or at least not formally) consider innovation markets, but instead to restrict its analysis to technology markets and intermediate/final product markets and leave the examination of possible reduced innovation to the more limited potential competition approach.

[9] Robert Pitofsky describes the potential adverse effects that can result from according too much deference to IPRs and rendering competition (antitrust) laws subordinate to these rights in the following terms:

> "As a matter of policy, we are comfortable rewarding innovation through patents and copyrights so long as the compensation is not significantly in excess of that necessary to encourage investment in innovation, and the market power that results is not used to distort competition in, for example, related product or service areas. But because intellectual property is now a principal, if not the principal, barrier to new entry in high-tech markets, we are also concerned that it be interpreted in a way that does not distort the traditional balance between intellectual property and antitrust."

See Pitofsky R. (2001): "Challenges of the New Economy: Issues at the Intersection of Antitrust and Intellectual Property", 68 *Antitrust Law Journal* 913, at p. 919.

[10] See Goldman, Corley and Witterick, *supra* n. 4.

[11] *Competition Act*, R.S.C. 1985, c. C-34 (as amended).

The Bureau's practice reflects its intention, in the words of the US Supreme Court, to limit the risk of "false positives".[12] False positives could be particularly severe in the case of IP given that the civilly reviewable provisions of the CA affords the Competition Tribunal (the "Tribunal") with the authority to issue broad remedial orders. These orders could, theoretically (i.e., there is no explicit bar), include the requirement that an IP owner license its IP to third-parties. In other words, there is the risk that an unbalanced approach to the IP/competition law intersection could, in effect, elevate IPRs to the level of an essential facility and, in so doing, create countless essential facilities in Canada.

The Tribunal has taken a similarly measured approach. Indeed, "[i]n cases where anticompetitive conduct with respect to IPRs has been alleged or remedies have been sought which affect a party's IPRs, the Competition Tribunal has demonstrated a respect for such rights and reluctance to interfere with the mere exercise of such rights."[13]

Canada's approach in this area lies somewhere between the enforcement approach taken in the U.S. and Europe (not unlike other areas of competition law). The title of our paper uses the phrase "balancing on a tight rope" because without such an approach competition law would be viewed as trumping, or being trumped, by IPRs. In this respect, it is not substantially different from the "exceptional circumstances" approach taken by the European Court of Justice in *IMS Health*.[14]

This paper explores the treatment given by the Bureau and the Tribunal to the intersection of IP and competition laws. This treatment is recorded in the Bureau's enforcement policies, including through its relevant guidelines. It is also recorded in the Tribunal's jurisprudence in that, while the various provisions of the CA can apply to a wide range of conduct, the Tribunal's jurisprudence likely limits rather than expands the possible application of the CA to IP. As will be explained, for the most part, the Bureau and the Tribunal have taken a balanced approach to applying the CA to IP in recognition of the fact that the two areas are, ultimately, complementary.

[12] *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP* 124 S. Ct 872, at p. 882 (2004).

[13] Goldman, Corley and Witterick, *supra* n. 4, at p. 13.

[14] Case C-418/0 *IMS Health and NDC Health v. Commmission,* judgment of 29 April 2004; see also James Venit's contribution to this volume.

B. Application of the Competition Act to Unilateral Conduct Involving Licensing Agreements

The Bureau's enforcement approach to conduct involving IPRs is described in its *Intellectual Property Enforcement Guidelines* ("IPEGs").[15] In particular, the Bureau will typically apply the following five steps for determining whether conduct involving IP harms competition:

- identify the transaction or conduct;
- define the relevant market(s);
- determine if the firm(s) under scrutiny possesses market power by examining the level of concentration and entry conditions in the relevant market(s), as well as other factors;
- determine if the transaction or conduct would unduly or substantially lessen or prevent competition in the relevant market(s); and,
- consider efficiencies, where applicable. [16]

While purporting to be a general approach for examining conduct involving IP, these five steps are, broadly speaking, congruent with the analysis undertaken pursuant to section 79 of the CA regarding abuse of a dominant position. Each step is reviewed below.

1. Nature of the transaction or conduct

The IPEGs state that "[t]he circumstances in which the Bureau may apply the *Competition Act* to anticompetitive conduct involving IP or IP rights fall into two broad categories: those involving anticompetitive conduct involving *something more than* the mere exercise of the IP right, and those involving the *mere exercise* of the IP right and nothing else."[17] The Bureau assesses the former conduct under the general provisions of the CA, which prescribes rules of general application governing anticompetitive agreements and unilateral conduct by dominant firms, and the latter conduct under the provisions that prescribe special remedies concerning the exercise of IPRs.

The IPEGs explain that both an ". . . owner's right to unilaterally exclude others from using the IP . . . [and] an IP owner's use or non-use of the IP . . ." amount to "the mere exercise of an IP right".[18] Accordingly, the Bureau has

[15] Canadian Competition Bureau (2000): *Industry Canada* (2000), http://strategis.ic.gc.ca/pics/ct/ipege.pdf.

[16] *Id.*, at p. 6.

[17] *Id.*, at p. 1 (emphasis added).

[18] *Id.*, at p. 7.

stated explicitly that, absent exceptional circumstances, it will not interfere with the fundamental rights of exclusion granted by IP. This means that, generally speaking, the Bureau will not challenge a decision by an IP owner to not licence, assign or otherwise commercialize its IP. However, once an IP owner has taken a positive step, such as by licensing its IP, the Bureau could scrutinize it in order to determine whether the conduct has an adverse effect on competition that is not a direct outcome of the exclusionary rights granted by the IP itself.[19]

Precisely which provision or provisions may apply, however, depends in part on whether the conduct is unilateral or part of an explicit or implicit agreement. As well, the Bureau must consider whether to proceed under the criminal or civilly reviewable provisions of the CA. The latter is likely to be appropriate where the impugned conduct involves "conduct that is generally pro-competitive but that may, in certain circumstances, significantly constrain competition".[20] One would expect the criminal provisions to be resorted to far less often in relation to the IP intersect. Therefore, for the purposes of this paper, we have restricted our consideration to unilateral conduct, which is primarily covered by the civilly reviewable provisions of the CA, namely:[21]

- abuse of dominance (section 79);
- refusal to deal (section 75); and
- market restrictions, such as exclusive dealing, tied selling and territorial restrictions[22] (section 77)

[19] Determining whether conduct goes beyond the mere exercise of an IPR is not, however, a simple task. For example, (then) FTC General Counsel, Debra Valentine, stated that "[w]hat extra factors are required to convert the exercise of one's intellectual property rights to misuse is less clear". See "Abuse of Dominance in Relation to Intellectual Property: US Perspectives and the Intel Cases" remarks of Valentine D. A. before the Israel International Antitrust Conference (November 15, 1999) at http://www.ftc.gov/speeches/other/dvisrael.htm, at p. 3. Similarly, US Assistant Attorney General Makan Delrahim made the following remarks regarding the difficulty in identifying the line between an appropriate and an inappropriate use of an IPR ["US and EU Approaches to the Antitrust Analysis of Intellectual Property Licensing: Observations from the Enforcement Perspective", remarks by Delrahim M. , Deputy Assistant Attorney General, Antitrust Division, US Department of Justice, at the American Bar Association, Section of Antitrust Law, Spring Meeting, April 1, 2004, p. 3]:

> "Only when the holders of intellectual property rights go beyond the legitimate exercise of these rights should antitrust law be used to constrain their activities, and only then in a manner that is based on sound economic policies. The challenge, of course, [. . .] lies in distinguishing the legitimate exercise of IP rights from conduct that goes too far in constraining competition."

[20] *IPEGs, supra* n. 15, at p.4.

[21] The principal criminal provision that may apply to unilateral conduct in the context of IP is subsection 61(1) concerning resale price maintenance. Subsection 61(1) prohibits any person who has an exclusive right conferred by IP to directly or indirectly: attempt to influence upward, or discourage the reduction of, the price by which any other person in Canada supplies or offers to supply or advertises a product within Canada; or refuses to supply a product to or otherwise discriminates against any other person engaged in business in Canada because of that person's low pricing policies or practices. Discussion of this provision is beyond the scope of this paper.

[22] This is technically referred to as a "market restriction" in the CA.

2. Defining the relevant market

The next step in the Bureau's substantive analysis is to define a relevant market.[23] In this respect, the methodology that the Bureau uses to analyze conduct involving IPRs is similar to the approach that applies to other types of conduct or transactions; in other words, the relevant market is defined on the basis of both product and geographic dimensions. However, perhaps reflecting the Bureau's intention to not assess competition in (highly) prospective markets, the Bureau has eschewed the innovation market approach for defining a relevant product market. The Bureau instead relies on the more traditional potential competition approach.

In the context of transactions involving IP, such as licensing agreements, the Bureau will consider the following two categories—or streams—of markets: (1) a technology market, which covers both the intangible knowledge or know-how that constitutes the IP as well as processes that are based on IPRs (a "technology market"); and (2) a market for the intermediate or final products that incorporate technology (a "final product market").[24] Generally speaking, a technology market exists where the technology is divisible—and possibly sold separately—from the final product.[25] A technology market consists of the IP that is the subject matter of the impugned conduct or transaction and its close substitutes. In the context of a licensing agreement, the Bureau does not automatically define the market to be the IP covered by the licence. Instead, it considers the rights that are to be protected and covered by the licence and then considers whether substitute technologies are available.[26] The price-based test for determining possible anticompetitive effects in other products, also applies for determining a relevant technology market.[27]

The Bureau's approach of identifying two possible product markets (i.e., an upstream technology market and a downstream final product market) in the context of conduct and transactions involving IP is different from the approach that we understand is undertaken by the competition authorities in

[23] *IPEGs, supra* n. 15, at p. 11.

[24] *Id.*

[25] That said, the Tribunal has left open the question of whether it will consider technology and the final product that incorporates the technology to be separate relevant products even where the dominant firm bundles them as a single unit. In such circumstances the Tribunal may consider the efficiency of offering the technology and final product as a single product and whether demand exists for the technology and final product to be sold separately. See e.g. *Tele-Direct, supra* n. 2, at pp. 160–161.

[26] *IPEGs, supra* n. 15, at p. 11.

[27] The test is whether purchasers would be willing to switch to an alternative product in response to a significant increase in price (5%) over competitive levels for a sufficient period of time (1 year). Canadian Competition Bureau (2001): *Enforcement Guidelines on the Abuse of Dominance Provisions*), http://strategis.ic.gc.ca/pics/ct/aod.pdf at p. 11, s.3.2.1(a) ["*Dominance Guidelines*"].

the U.S. and, to a more limited extent, in the EU. While the US and EU authorities will, in appropriate cases, identify a technology market and a final product market, they will also consider whether a transaction impacts upon a so-called "innovation market."[28] The *US IP Guidelines* define an "innovation market" in the following manner:

> "An innovation market consists of the research and development directed to particular new or improved goods or processes, and the close substitutes for that research and development. The close substitutes are research and development efforts, technologies, and goods that significantly constrain the exercise of market power with respect to the relevant research and development, for example by limiting the ability and incentive of a hypothetical monopolist to retard the pace of research and development. The Agencies will delineate an innovation market only when the capabilities to engage in the relevant research and development can be associated with specialized assets or characteristics of specific firms." [29]

Innovation markets afford the authorities with an opportunity to consider *ex ante* conduct (or more likely, a potential loss of *ex ante* conduct/R&D) in future markets in addition to *ex post* impact in existing markets. In turn, the authorities can assess whether a transaction is likely to result in a redeployment (e.g. reduction or elimination) of R&D and related resources in a manner that is likely to have a long-term detrimental impact.[30]

The Bureau's approach, on the other hand, is "not [to] define markets based on research and development activity or innovation efforts alone".[31] Instead, the Bureau restricts its analysis to technology and product markets.[32]

[28] See US Department of Justice and the Federal Trade Commission (1995): *Antitrust Guidelines for the Licensing of Intellectual Property,* at http://www.usdoj.gov/atr/public/guidelines/ipguide.pdf ("*US IP Guidelines*"). In the EU, see *Guidelines on the applicability of Article 81 of the EC Treaty to horizontal cooperation agreements*, OJ C 3 [2001] at paras. 50–51; and *Guidelines on the application of Article 81 of the EC Treaty to technology transfer agreements,* OJ C 101 [2004], para. 23 ("*TT Guidelines*"). The *TT Guidelines* note that the European Commission "will normally confine itself to examining the impact of an agreement on competition within existing product and technology markets." However, the *TT Guideline*s go on to note that: "[i]n a limited number of cases, however, it may be useful and necessary to also define innovation markets."

[29] *US IP Guidelines, supra* n. 28, at p. 11, s.3.2.3.

[30] In particular, the *US IP Guidelines* state that (i*d.,* at pp.10–11, s. 3.2.3):

> "A licensing arrangement may have competitive effects on innovation that cannot be adequately addressed through the analysis of goods or technology markets. For example, the arrangement may affect the development of goods that do not yet exist. Alternatively, the arrangement may affect the development of new or improved goods or processes in geographic markets where there is no actual or likely potential competition in the relevant markets."

[31] *IPEGs, supra* n. 15, at p. 11. See also Corley, *supra* n. 1, at p. 85.

[32] However, the Bureau appears to not have totally closed the door on the possibility of considering innovation markets. In particular, the IPEGs note (as discussed in *infra* n. 34) that the Bureau will consider competition in a "prospective product or process market". This would seem to leave open the possibility for consideration of innovation markets, albeit that the Bureau's general approach is to apply the traditional potential competition approach.

While the Bureau's approach may be, arguably, less robust,[33] it does take dynamic efficiencies[34] into account. The Bureau considers both actual and potential competition in its assessment of harm. Indeed, the IPEGs note that, in respect of the Bureau's consideration of competitive harm, "a transaction or conduct that reduces innovation activity could be anticompetitive if it prevents future competition [i.e., potential competition] in a prospective product or process market."[35] However, unlike with innovation markets, the focus remains on examining effects in a market rather than the loss of a source of R&D efforts.

3. Market power

IP is not synonymous with market power. The Bureau states this fundamental principle in the following terms:

> "In addition, although IP rights to a particular product or process are often created and protected by statute and are thus different from other forms of property rights, the right to exclude others from using the product or process does not necessarily grant the owner market power. It is only after it has defined the relevant market and examined factors such as concentration, entry barriers and technological change that the Bureau can conclude whether an owner of a valid IP right possesses market power."[36]

[33] In its influential *Anticipating the 21st Century: Competition Policy in the New High-Tech, Global Marketplace* staff report, the US Federal Trade Commission ("FTC") concluded that, in its view, failing to consider innovation markets can have particularly adverse effects because it is extremely difficult, if not impossible, to take a wait-to-see approach given that dynamic efficiencies often manifest in negative rather than positive conduct. Accordingly, the FTC embraced the approach of defining innovation markets and, in so doing, considered the potential competition doctrine (i.e., the doctrine that the Bureau utilizes) to be inadequate. See FTC Staff Report (1996): *Anticipating the 21st Century: Competition Policy in the New High-Tech, Global Marketplace*, vol I, chapter 7: "Innovation and the Assessment of Competitive Effects" (herafter "FTC Report"), at pp. 20 and 32, respectively.

On the other hand, Trebilcock *et. al.* explain that the innovation market approach may be less satisfactory than the potential competition approach because it moves away from the well accepted and understood price and output effects analysis and instead considers less precise non-price effects such as level, speed or diversity of R&D activities. See Trebilcock M., Winter R. A., Collins P. and Iacobucci E. M. (2002):, *The Law and Economics of Canadian Competition Policy*, Toronto, University of Toronto Press, at p. 586, note 35.

[34] Dynamic efficiency is achieved through the invention, development and diffusion of new products and production processes, see Goldman, Corley and Witterick, *supra* n. 4, at pp. 6–7.

[35] *IPEGs, supra* n. 15, at p.13.

[36] *Id.,* at p. 6. This is consistent with the approach taken in the US and EU. See *e.g. US IP Guidelines, supra* n. 28, at p. 2., s. 2; Wainwright R. and Castillo de la Torre F. (2003): "IP Transactions and Infringements of Articles 81 and 82—New Developments in EU Law" paper presented at the 2nd Conference on Competition Law and IP Related Aspects (14 March 2003), at para. 5; and Temple Lang J. (2004): "Mandating Access: The Principles and Problems in Intellectual Property and Competition Policy", 15 *European Business Law Review* 1087, at p. 1091.

Market power, as in most Canadian competition cases, is assessed on the basis of direct and indirect evidence. In the context of technology markets, however, the traditional indicators of market power relevant to final products may not be relevant; in fact, these factors may distort the assessment.[37]

Accordingly, indirect indicators may be more telling for considering the existence or non-existence of market power in technology markets.[38] Indeed, the IPEGs explain that, in the case of IP, "the Bureau's assessment of market power is likely to focus on qualitative factors such as conditions of entry into the relevant market, whether IP development is resulting in a rapid pace of technological change, the views of buyers and market participants, and industry and technology experts".[39]

The IPEGs note that in the context of technology markets, conditions of entry are often more informative than concentration and market share levels.[40] This recognizes the fact that, in some cases, technology evolves at such a rapid pace that market power cannot be sustained, while in other cases a position can be firmly entrenched because of network effects.[41] When assessing whether entry is likely to constrain market power in a particular market, the Bureau will consider a range of factors, including evidence of actual entry; costs, particularly sunk costs, attributable to entry; asymmetry in costs structures; reputation and goodwill of the incumbent; length of start-up period; and countervailing buyer power. Additional sources of barriers to entry could include the IP itself (e.g. where the scope of the protection is excessively broad or where a firm has an extensive IP portfolio) or the impugned conduct that is alleged to be anticompetitive.[42]

[37] For example, factors such as high profit margins, excessive prices and excess capacity would not necessarily assist in defining a technology market. With regard to high profit margins, in technology industries prices are often disconnected from marginal costs as technology is typically characterized by significant fixed costs and very low marginal costs. This can give the appearance of supra-competitive profits. With regard to excessive prices, owing to the existence of economies of consumption or ubiquity (network externalities) for some types of technology, firms that sell technologies may prefer to keep prices low over the short-to-medium-term in order to build a network. Finally, in terms of excess capacity, a prominent feature of IP is that its use, and its capacity for use, is generally not constrained. See Posner R. A. (2001): "Antitrust in the New Economy", 68 *Antitrust Law Journal* 925, at pp. 926–927. See also FTC Report, *supra* n. 33, at p. 15; and Temple Lang, *supra* n. 35, at p. 1091.

[38] This does not apply to final products that incorporate IP. For these products the traditional practice of identifying direct and indirect evidence continues to be relevant to assessing market power.

[39] *IPEGs, supra* n. 15, at p. 12.

[40] *Id.,* at p. 13 (arguably this should be the case whether or not a transaction involves IP).

[41] Pitofsky notes that entry barriers arising from network effects tend to occur with more frequency in high-tech industries. In many instances a firm with a strong network evolves to become the only supplier of a product because consumers place a high value on compatibility or interoperability. In such circumstances, consumers would likely view switching costs to be high, thereby creating a "lock-in" effect. Actual or potential competitors would also likely view the cost of entry to be very high. See Pitofsky, *supra* n. 9, at p. 916.

[42] In *Canada (Commissioner of Competition) v. Canada Pipe* CT-2002-006, http://www.ct-tc.gc.ca/CMFiles/CT-2002-006_0079b_45PWA-2142005-2029.pdf?windowSize=popup at para

4. Lessening or preventing competition substantially

According to the IPEGs, after determining whether a firm(s) has market power in a relevant market, the next step is to determine whether the firm has used, or is using, its position to harm competition, namely by substantially lessening or preventing competition. The focus is on whether the impugned conduct serves to create or entrench a firm's market power.[43] The requirement of finding a resulting anticompetitive effect, rather than requiring only evidence that conduct makes it more difficult for competitors to operate, demonstrates a clear intention by the Bureau to focus on the effects on competition rather than on competitors.[44]

According to the IPEGs, conduct will be considered anticompetitive only where it has anticompetitive horizontal effects.[45] The Tribunal has held that, in the context of an alleged abuse of dominance, the Bureau must consider whether the conduct is "exclusionary, predatory or disciplinary."[46] The Dominance Guidelines explains that this requires the Bureau to consider "(i) acts that raise rivals' costs (or reduce rivals' revenues) or that foreclose existing or potential rivals from key inputs or facilities; (ii) predatory conduct; and (iii) acts intended to facilitate coordinated behaviour among firms (facilitating practices)."[47] In the context of IP licensing arrangements that raise potential unilateral concerns, the first category, namely foreclosing suppliers/inputs or customers from rivals, is the most likely to be implicated.

Conduct will not be considered anticompetitive, however, merely because of a dominant firm's superior competitive performance.[48] This is an

68 ("*Canada Pipe*"), for example, the Tribunal confirmed that while it may appear "circular" to take the conduct alleged to be anticompetitive into account as a factor for determining market power (i.e., on the basis that the conduct serves as a barrier to entry) it could do so. The Commissioner has appealed *Canada Pipe* to the Federal Court of Appeal. See also *Canada (Director of Investigation and Research) v. The NutraSweet Company* CT-89/2, http://www.ct-tc.gc.ca/CMFiles/CT-1989-002_0176a_38IHV-12202004-3351.pdf?windowSize=popup at 12 ("*NutraSweet*"), *supra* at p. 81.

[43] Facey B. A. and Assaf D. H. (2002): "Monopolization and Abuse of Dominance in Canada, the United States, and the European Union: A Survey", 70 *Antitrust Law Journal* 513, at p. 564.

[44] The *Dominance Guidelines* state that this requirement puts "the focus on the impact on competition rather than on competitors" and that it places the focus "squarely on competition, rather than on individual competition." See *Dominance Guidelines, supra* n. 27, at p. 18, s.3.2.3 and p. 3, respectively.

[45] *IPEGs, supra* n. 15, at p. 13. This does not mean, however, that the Bureau has exempted vertical agreements. Instead, in the case of vertical agreements, the Bureau will consider how the impugned conduct will facilitate the firm's ability to exercise market power vis-à-vis other competitors in a market.

[46] *Nutra-Sweet, supra* n. 42, at p. 57; and *Tele-Direct*, *supra* n. 2, at p. 259.

[47] *Dominance Guidelines, supra* n. 27, at p. 20, s.4.1.

[48] Subsection 79(4) of the CA specifically requires the Tribunal to consider, in the context of an abuse of a dominant position, whether alleged anticompetitive effects are the result of a dominant firm's superior competitive performance, and thus presumably not an abuse of dominance, or a result of conduct that has an anticompetitive purpose, in which case possibly an abuse of dominance.

important Canadian statutory qualification, the breadth of which is still to be judicially determined. To this end the IPEGs state that: "a firm would not contravene the *Competition Act* if it attains its market power solely by possessing a superior product or process, introducing an innovative business practice or other reasons for exceptional performance."[49]

5. Pro-competitive effects/efficiencies

The final step in the Bureau's analysis is to consider whether the conduct or transaction was adopted for efficiency reasons or to achieve a legitimate business objective.[50]

Efficiencies constitute an explicit defence to anticompetitive effects only in respect of merger transactions (provided that the efficiencies are greater than, and offset, any resulting anticompetitive effects).[51] That said, the IPEGs state that the Bureau will also consider efficiencies and business justifications in the context of an abuse of a dominant position (section 79) as well as exclusive dealing, tied selling and market restrictions (section 77) for the purposes of "determining whether conduct is, on balance, anticompetitive."[52]

The precise weight to be accorded to pro-competitive effects, however, is not settled. Certainly, if efficiencies and acceptable business justifications are to be considered, the Bureau and the Tribunal will require evidence that the pro-competitive effects are proportionate to and do not exceed any resulting competitive harm.[53] The efficiencies and business justifications are likely to be considered on an objective basis,[54] and thus not for self-

[49] *IPEGs*, *supra* n. 15, at p. 3.

[50] *Id.,* at pp. 6 and 14. Pitofsky attributes the (increased) willingness of (US) antitrust authorities to take efficiencies into account to be a key development in competition policy over the past few years. See Pitofsky, *supra* n. 9, at p. 915:

"In many respects the most important development in antitrust analysis under American law, particularly relevant in a discussion of the relationship between antitrust and intellectual property, is the increased willingness of enforcement authorities and courts to take efficiencies into account as a mitigating factor."

[51] s. 96(1), CA. The application of the efficiency defence to the assessment of mergers was recently set out by the Federal Court of Appeal in *Canada (Commissioner of Competition) v. Superior Propane*, [2003] 3 F.C.J. 529. In this appeal, Superior Propane was represented by a team lead by Neil Finkelstein and Brian Facey of Blake, Cassels & Graydon LLP.

[52] *IPEGs, supra* n. 15, at p. 14.

[53] In *Canada (Director of Investigation and Research) v. The D&B Companies of Canada Ltd.,* e CT-94/1, http://www.ct-tc.gc.ca/CMFiles/CT-1994-001_0142a_45PGS-4152004-4447.pdf?windowSize=popup at p. 35 ("*Nielsen*") at p. 69, and *Canada Pipe, supra* note no. 42*,* para. 212. In the context of transactions involving IP and IPRs, the IPEGs state that the Bureau will consider "whether the firms could have used commercially reasonable means to achieve efficiencies that are or were less harmful to competition", and if so, will assess the effects against these alternatives. See *IPEGs, supra* n. 15, at p. 14.

[54] *Canada (Commissioner of Competition v. Air Canada* CT-2001/002 (July 22, 2003), http://www.ct-tc.gc.ca/CMFiles/CT-2001-002_0145a_40QXN-4132004-736.pdf?windowSize=popup, at paras. 51–55.

interest.[55] A separate, and more complex, issue is the importance or weighting that the Bureau and Tribunal will place on the categories (i.e., allocative, productive and dynamic) of efficiencies.[56]

The Bureau's historic practice for measuring anticompetitive effects is to consider allocative efficiencies, and thus to focus on short-term price and output effects. In the context of transactions involving IP, however, dynamic efficiencies may be more relevant.[57] The Bureau has intimated that it will place a high degree of importance on dynamic efficiencies, even recognizing that certain IP related transactions can have short-term adverse price and output—or allocative—effects:

> ". . . there may be instances in which restrictions on competition can lead to a more efficient use of resources. This may be particularly true of arrangements and transactions involving IP that are inherently vertical and combine complementary factors. Moreover, there may be instances when creating or increasing market power is justified because of the efficiencies created. Indeed, this principle is consistent with the protection afforded by IP laws, which foster dynamic efficiency and competition by facilitating the creation of valuable works or processes that result in long-term increases in product selection, quality, output and productivity. In providing incentives for investment, IP laws grant exclusivity to the protected works that may result in temporary market power. Consequently, the Bureau considers both the short-term and long-term efficiency implications of conduct or a transaction when analyzing efficiencies in cases involving IP."[58]

However, it remains to be seen whether the Bureau (and ultimately the Tribunal) will tolerate higher prices in the short-term so long as it can be demonstrated that a transaction promotes innovation, albeit that the benefits may be less obvious and more prospective in nature.

[55] *Nielsen, supra,* note 53, at p. 67. See also Anderson R. D. and Rivard B. (1999): "Antitrust Policy Towards EFT Networks: The Canadian Experience in the *Interac* Case", 67 *Antitrust Law Journal* 389, at p. 415.

[56] A detailed discussion of efficiency considerations under Canadian law is beyond the scope of this paper. Also, the degree to which the assessment of efficiencies in the IP context will be influenced by the ongoing debate in Canada on the relevance of efficiencies in merger review cases remains to be determined. For a more detailed discussion of these issues see: Gotts and Goldman, *supra* n. 4; Competition Bureau News Release, "Consultations on the Treatment of Efficiencies under the Competition Act", September 24, 2004, http://www.competitionbureau.gc.ca/internet/index.cfm?itemID=337&lg=e; Blake, Cassels & Graydon LLP, "Blakes Bulletin on Competition and Trade—Canadian Competition Law Update", April 2005, http://www.blakes.com/english/publications/focus/article.asp?A_ID=334&DB=BlakesReport.

[57] See Goldman, Corley and Witterick, *supra* n. 4, at p. 9.

[58] *IPEGs, supra* n. 15, at pp. 13–14. In the context of IP licensing agreements, the IPEGs state that the Bureau will consider issues like whether the agreement is likely to increase inter-brand rivalry (e.g. at the expense of intra-brand rivalry, which can be as a result of exclusivity) or increased level of R&D or product development. These examples provided in the IPEGs are presumably not exhaustive.

C. Application of the Competition Act to Something More than the Mere Exercise of an IPR

As previously noted,[59] the first step when examining a potential violation of the CA involving IP is to identify the potentially infringing conduct; in particular, whether the conduct involves the mere exercise of an IPR or whether it involves something more than that. This step is not straightforward. For example, while the Tribunal has consistently defined anticompetitive conduct under section 79 (abuse of dominant position) to include conduct that is "exclusionary" (as previously explained), the right to exclude third parties is a fundamental element of IPRs. As well, a firm can be required under section 75 (refusal to deal) to supply a product to a third party, yet, once again, the freedom to decide whether to grant a licence is a fundamental element of an IPR.

This apparent discord between IPRs and competition law can make it difficult to determine whether a transaction concerning IP involves conduct that is more than the mere exercise of an IPR or whether it involves conduct that is the mere exercise of an IPR. As noted earlier in this paper, this determination is the first step in examining whether conduct involving IP harms competition.[60] If the transaction involves conduct that is more than the mere exercise of an IPR, it will be assessed under the general provisions of the CA.[61] Licensing agreements, and the circumstances surrounding them, provide a good illustration of the tension in determining which of the two categories is applicable.

Licensing agreements are typically pro-competitive because they facilitate the integration of IP with complementary factors of production[62] and facilitate the broader use of IP[63] (by those who may not have otherwise had access to the IP or to its substitutes). Licensing agreements allow for the commercialization of IP and, in doing so, provide incentives for investments into new or improved technologies.[64] The Bureau states in its IPEGs that it

[59] *Supra* n. 19, and *supra* Section A.

[60] *Supra*, p. 6; *IPEGs*, *supra* n. 15, at p. 7.

[61] I.e., as previously noted, this refers to the general substantive provisions of the CA that govern all types of commercial conduct.

[62] Valentine, *supra* n. 19, at p. 9.

[63] *IPEGs, supra* n.5, at p. 6.

[64] The IPEGs describe the important role that licensing serves in improving overall welfare in the following terms (*Id.,* at p. 6, note 13):

> "Licensing is a means by which owners trade IP, and it signals the willingness of IP holders to participate in the marketplace. This ability of owners to exchange and transfer IP can enhance the IP's value and increase the incentive for its creation and use. Licensing arrangements also promote the efficient use of IP by facilitating its integration with other components of production, such as manufacturing and distribution."

regards the "vast majority" of licensing agreements to be "pro-competitive."[65]

At the same time, licensing agreements can be used for improper purposes or otherwise have an anticompetitive effect. Wainwright and Castillo de la Torre note, for example, that:

> "They [licensing agreements] introduce a (sic) new competitors into the market and they help to diffuse the invention throughout the economy. None the less, a licensing agreement can be used to conceal a market sharing arrangement or be incorporated in a scheme to prevent new technologies from entering a market."[66]

Similarly, Trebilcock *et al.* state that:

> ". . . licensing may not always be socially desirable. Firms may license 'sham agreements' that transfer technologies of little value for the purpose of dividing the market among competitors. Other contentious restrictions include those that foreclose the market to competing technologies (e.g., exclusive dealing), or that facilitate cartel patent pooling arrangements . . ."[67]

Other than in exceptional circumstances (as described below regarding section 32 of the CA), the IPEGs confirm that the Bureau will not challenge a decision by an IP owner to not license its technology to third parties.[68] Presumably, this also extends to an IP owner's decision to not use or commercialize its technology or to not conduct R&D for follow-on improvements to its technology. However, there are limits. Licensing agreements that restrict competition beyond the inherent exclusivity conferred by an IPR will be, just like conduct in respect of any type of property, assessed to determine whether the conduct "reduce[s] competition substantially or unduly relative to that which would have likely existed in the absence of the license."[69]

In the subsections that follow we set out the manner in which the CA may apply to unilateral conduct in the context of licensing agreements.

[65] *Id.,* at p. 6.

[66] Wainwright and Castillo de la Torre, *supra* n. 36, at para. 6.

[67] Trebilcock *et al.*, *supra* n. 33, at p. 582.

[68] Indeed, the *IPEGs* state that "[t]he unilateral exercise of the IP right to exclude does not violate the general provisions of the *Competition Act* no matter to what degree competition is affected" (*supra* n. 15, at p. 7). The IPEGs describe the trade-off as follows (at p. 5):

> "IP and competition laws are both necessary for the efficient operation of the marketplace. IP laws provide property rights comparable to those for other kinds of private property, thereby providing incentives for owners to invest in creating and developing intellectual property and encouraging the efficient use and dissemination of property within the marketplace. Applying the *Competition Act* to conduct associated with IP may prevent anticompetitive conduct that impedes the efficient production and diffusion of goods and technologies and the creation of new products."

[69] *Id.* at p. 7.

1. Abuse of a Dominant Position—Section 79

1.1. Overview[70]

A firm(s) will be found to have violated section 79 of the CA, and in Canadian competition law parlance, to have abused its dominant position, where the following three conditions apply:

- one or more persons substantially or completely control, throughout Canada or any area thereof, a class or species of business ("Condition 1");
- that person or persons have engaged or are engaging in a practice of anticompetitive acts ("Condition 2"); and
- the practice has had, is having or is likely to have the effect of preventing or lessening competition substantially in a market ("Condition 3").

The Tribunal has interpreted Condition 1 as requiring that the firm—or firms in the context of joint-dominance—has market power in a relevant (product and geographic[71]) market.[72] Condition 3 has been interpreted as requiring evidence that the anticompetitive conduct identified as part of Condition 2 has had, is having or is likely to have an anticompetitive effect. Stated differently, it requires evidence of "the degree of success it [i.e., the anticompetitive conduct by the dominant firm(s)] achieved or is likely to achieve, if any."[73] The requirements for establishing Conditions 1 and 3 in the context of transactions involving IP are described in the previous section of this paper and are thus not repeated below. In this section we consider examples of those provisions that are typically found in licensing agreements, or conduct that may take place in connection with licensing agreements, that may be considered anticompetitive, either on their own or in combination with other factors. The list of conduct identified is illustrative rather than exhaustive.

[70] For a more comprehensive overview and explanation of the abuse of dominance provisions of the CA, see Goldman C. S. and Witterick C. L. (2005): "Abuse of Dominant Position—The Canadian Approach", in Ehlermann C.-D. and Atanasiu I., eds., *European Competition Law Annual 2004: What Is An Abuse of a Dominant Position?*, Oxford, Hart Publ..

[71] The Tribunal has stated that the phrase "throughout Canada or any part thereof" in paragraph 79(1)(a) means that the market power must exist in Canada or any more narrowly defined geographic market within Canada. See: *Nielsen, supra* n. 53, at p. 20. See also Facey and Assaf, *supra* n. 43, at p. 531.

[72] *Canada Pipe, supra* n. 42, at para. 65.

[73] *Nielsen, supra* n. 53, at p. 76.

1.2. Condition 2—Anticompetitive conduct (and illustrative examples)

Condition 2 (paragraph 79(1)(b)) is satisfied by evidence of conduct that constitutes a "practice"[74] and that qualifies as an "anticompetitive act."

Section 78 of the CA provides examples of conduct that may constitute an anticompetitive act. The list of examples is not exhaustive.[75] Instead, any conduct can be covered by Condition 2 so long as it is "intended to have a negative effect on a competitor that is predatory, exclusionary or disciplinary."[76] The conduct must have been adopted for an anticompetitive "purpose" and "evidence of this purpose is a necessary ingredient [to satisfy Condition 2]."[77] The Tribunal has noted that the purpose can be discerned either from evidence of subjective intent, such as may be determined through internal company documents or through interrogatories, or inferred from surrounding circumstances.[78] The "purpose" that the Bureau and, in a proceeding the Tribunal, look for is the elimination of competition and/or impeding entry or expansion in or into a market.

There is no list of contractual terms or other conduct that will or will not be considered anticompetitive in the context of a licensing agreement. Theoretically, any conduct can constitute, or can contribute to a finding of, an anticompetitive act. However, the case law and IPEGs provide practical, illustrative examples that provide a road map concerning the types of contractual terms and surrounding circumstances that, either on their own or based on their cumulative effect, can go beyond the mere exercise of IPRs when engaged in by a dominant firm:

[74] The Tribunal has defined a "practice" as conduct that is more than an isolated act (see: *NutraSweet, supra* n. 42, at p. 59. See also *Tele-Direct, supra* n. 2, at p. 20). A few separate acts, when considered in the aggregate, can constitute a practice. As well, even a single act can constitute a practice where its effect is continuing. In *Canada Pipe* the Tribunal stated that a practice "may be one occurrence that is sustained and systemic, or that has had a lasting impact on competition" (See: *Canada Pipe, supra* n. 42, at para. 171). Potentially relevant to conduct involving a licensing agreement, the *Dominance Guidelines* explain that a long-term exclusionary contract can be a practice where it has a sustained impact on competition "even though the contract itself constitutes only one episode of an anticompetitive act" (See: *Dominance Guidelines, supra* n. 27, at p. 17, s.3.2.2(a)).

[75] *NutraSweet, supra* n. 42, at p.57. Also see *Nielsen, supra* n. 53, at p.60, and *Tele-Direct, supra* n. 2, at p. 258.

[76] *NutraSweet, supra* n. 42, at p. 57.

[77] *Id.*

[78] *Id.*, at p. 60. In both *Nielsen, supra* n. 53, at p. 61, and *Canada (Director of Investigations & Research) v. Laidlaw Waste Systems Ltd.*, CT-91/2 http://www.ct-tc.gc.ca/CMFiles/CT-1991-002_0072_38LSM-41320042121.pdf?windowSize=popup ("*Laidlaw*"), at p. 95, the Tribunal held that evidence of subjective intent is not necessary. Instead, "[t]he respondent will be deemed to intend the effects of its actions", and that "corporate actors and individuals are deemed to intend the effects of their actions".

Contractual terms:

a. Contractual exclusivity clauses

These clauses can be in the form of an explicit requirement and/or an inducement to deal exclusively with the licensor and to not license, sell or use a competing technology or product that incorporates IP. Exclusivity clauses "hold back a sufficient amount of market demand from potential entrants so that the remaining demand would provide an insufficient volume of sales to cover the cost of entry and future operating costs in Canada . . ."[79]. For example, a dominant firm could require that purchasers acquire technology or products (that incorporate IP) from only the dominant firm and, thereby, potentially remove (potentially critical) sources of sale to competing suppliers. Clauses which may require an increased level of scrutiny could include, for example, requiring customers to purchase all or a substantial proportion of their supplies from the dominant firm;[80] offering allowances or other inducements which are designed in such a manner to effectively foreclose the successful introduction of competing technology or products;[81] or exclusive long-term contracts for the supply of key inputs necessary to operate in a downstream market. The latter could be particularly problematic where switching costs are high.[82]

Exclusivity requirements imposed by a purchaser on licensors or suppliers of technology or products incorporating IP that form an essential input in the manufacture of a product can also merit scrutiny where the purchaser has a dominant position in the purchase market for the subject technology or product. Under this scenario, the exclusivity clause could have the effect of foreclosing entry on the licensee's market (i.e., preventing or restricting intra-brand competition) or making it excessively difficult or costly (i.e. by raising costs) for other purchasers that compete with the dominant firm. As well, if there are no substitutes for the licensed technology, inter-brand competition can also be foreclosed or eliminated.

b. Rights of first refusal in favour of the licensor

This refers to a contractual term whereby, at the end of the term of a licence, the licensor is entitled to match competing offers from competing third party

[79] IPEGs, *supra* n. 15, Example 4 at p. 20.

[80] *NutraSweet, supra* n. 42.

[81] In *NutraSweet*, *supra* n. 42, the Tribunal found that certain contractual terms, including trade-mark allowances offered for displaying NutraSweet's "swirl" logo, and offering rebates on exports of aspartame from the U.S., which it was able to offer because of an existing US patent on its aspartame, in order to induce Canadian producers to exclusively use NutraSweet's aspartame in their operations, effectively created an "all-or-nothing" choice for customers and essentially operated as an inducement for exclusivity.

[82] *Neilsen, supra* n. 53.

licensors of the technology or IP. In *Laidlaw*, the Tribunal explained that these clauses can harm competition because, first, they allow the dominant firm to sit back and wait for competition rather than competing proactively, and second, they allow the dominant firm to acquire knowledge of the terms offered by its competitors.[83] The Tribunal also noted that the provision discourages secret price offers because of the contractual obligation on the licensee to make known to the dominant licensor the terms and conditions, including (royalty) fees, being offered by competing licensors.

c. Tying or bundling

"A tie is the supply of one product *on the condition that* the buyer takes a second product as well *or* on terms that *induce* the buyer to take the second product as well".[84] In the context of a licensing agreement, the second product could include related technologies and/or products or services sold by the licensor or someone affiliated with, or designated by, the licensor. Bundling refers to the inclusion of two or more separate technologies or other IP and offered for sale only as a single package.[85] In its recent *Microsoft* decision, the European Commission found that Microsoft had improperly bundled its Windows operating system with its Windows Media Player ("WMP").[86] The European Commission found that the two technologies were separate markets by virtue of the fact that there was distinct demand for both, and that Microsoft had used its dominant position in the operating systems market by bundling its Windows with WMP and selling the two as a single product. The European Commission pointed to the fact that Windows and WMP were sold as a single package and that licensees were contractually precluded from removing the WMP code from their Windows operating system.

d. Exclusive grant backs

This refers to a requirement that the licensee grant-back, either through assignment or exclusive licence, the rights to any follow-on IP (product or process technology) it has developed to the licensor.[87]

[83] *Laidlaw, supra* n. 78, at pp. 31–32.

[84] *Tele-Direct, supra* n. 2, at p. 147, emphasis included.

[85] The potential competitive harm by tying and bundling in the context of licensing agreements is that, where the products are not perfect complements and/or price discrimination is practical, the licensor is effectively able to extend its legal monopoly conferred by its IP into secondary markets that are not covered by its IPR.

[86] Case COMP/C-3/37.792 *Microsoft* (March 24, 2004), appeal pending, T-201/04 *Microsoft Corp. v. Commission of the European Communities*.

[87] Trebilcock *et al* note that a grant-back operates in a manner similar to tying and the concern is that the licensor is effectively leveraging its IP into markets that are not covered by the IP. See Trebilcock *et al.*, *supra* n. 33, at p. 610. A further possible adverse consequence of an exclusive grant-back requirement is that it can operate as a disincentive to R&D and other investments by the licensee as a result of the restriction imposed on the licensee's ability to commercialize the results of its R&D and investments. See *US IP Guidelines,* supra n. 28, at p. 30, s. 5.6.

e. Provisions designed to increase barriers to entry

The Tribunal has identified provisions in contracts that are designed to discourage or otherwise increase the cost of entry as being potentially anticompetitive. These provisions could include, for example, contracts for an unreasonably long duration; staggered start and completion dates; substantial penalties (such as liquidated damages) for early termination; automatic roll-over periods (evergreen); and/or restrictions on terminating a license.[88] In *Laidlaw*, for example, contracts with a duration of three years, automatic renewal terms and significant liquidated damage clauses contributed to a finding of abuse.

f. Clauses designed to increase market transparency

Terms of a license agreement designed to require or induce a licensee to provide competitively sensitive information regarding a licensor's competitors, such as possibly in respect of a competing technology and/or in respect of products in a downstream market, can be anticompetitive. For example, in the context of a product supply agreement, the Tribunal considered a meet-and-release clause and a most-favoured-nation clause to be anticompetitive because the clauses allowed the dominant firm to be informed of its competitors' offers.[89] The clauses operated as an inducement for exclusivity and thus as a disincentive to entry or expansion by actual or potential competitors.[90]

g. Restrictive covenants/non-competition clauses

Any restriction in a license agreement that has the purpose of requiring or inducing a licensee to not compete with the licensor, such as through restrictions on the development of new technology or on the use of third-party technology that competes with the licensed technology, could be anticompetitive provided that it goes beyond what is necessary to protect the IP and associated know-how.[91]

[88] The Tribunal has characterized as anticompetitive a wide number of contractual terms intended to make it difficult or otherwise costly for customers to terminate their contracts or to switch suppliers, or which otherwise make the contract termination period excessively long or uncertain. These provisions can operate as a serious impediment to entry or expansion by actual or potential competitors. See e.g. *Laidlaw, supra* n. 78.

[89] *NutraSweet, supra* n. 42.

[90] See *NutraSweet, supra* n. 42, at pp. 66–72.

[91] The principal competitive risk from these agreements is foreclosure of the technology to third parties or prevention of the development of competing technologies. This in turn can result in a concentration of the technology market, particularly where the practice is widespread amongst licensors of substitute technology. In *Canada Pipe* the Bureau alleged that certain restrictive covenants (in this case, in acquisition agreements) constituted anticompetitive acts. On the basis of the specific facts of that case, the Tribunal considered the covenants to be "reasonable" and held that they were not anticompetitive. See *Canada Pipe, supra* n. 42, at paras. 198–199.

Surrounding circumstances:

h. Threatening or conducting spurious litigation

Instituting litigation without foundation for the purposes of stifling or impeding competition can constitute anticompetitive conduct.[92] In *Laidlaw*, for example, the respondents' practice of threatening litigation, responding to minor disagreements with extreme zealousness and having a large war-chest for litigation was considered anticompetitive.[93]

i. Anticompetitive acquisitions

There is nothing inherently anticompetitive about acquisition transactions. However, both the Bureau and the Tribunal have acknowledged that, in certain circumstances, acquisitions can be for an anticompetitive purpose. For example, the systematic acquisition of companies that own IPRs and then withholding the IP from third-parties can constitute anticompetitive conduct.[94] In the context of IP, these types of transactions could include assignments, exclusive licence agreements (i.e., where the dominant firm is the licensee and it owns or licenses substitutable technologies and imposes exclusivity obligations on its licensors)[95] or buying up of the companies that own competing technologies and/or R&D capabilities.

j. Adoption of standards

A further example of anticompetitive conduct could include a practice of encouraging the adoption of standards that can be supplied only by the dominant licensor.[96]

[92] Trebilcock *et al* explain that spurious litigation is anticompetitive because it raises rivals' costs: "[Abusive litigation] practices are widely perceived by competition policy commentators as having the potential for seriously undermining effective rivalry in many markets. . . . Combative litigation can demotivate, block development or expansion, coerce compliance and, at the least, cause delay and raise the competitor's costs, even if unsuccessful" (*supra* n. 33, at pp. 552–553).

[93] *Laidlaw, supra* n. 78.

[94] In particular, the IPEGs provide that: ". . . if a firm acquires market power by systematically purchasing a controlling collection of IP rights and then refuses to license the rights to others, thereby substantially lessening or preventing competition in markets associated with the IP rights . . .". See *IPEGs, supra* n. 15, at p.8.

[95] However, see Justice Hugessen's latest decision in *Eli Lilly and Co. v. Apotex Inc.*, 2004 FC 1445 (currently under appeal).

[96] Paragraph 78(g) of the CA identifies the following conduct as (potentially) anticompetitive: "adoption of product specifications that are incompatible with products produced by any other person that are designed to prevent his entry into, or to eliminate him from, a market". Trebilcock *et al.* note that a dominant firm could engage in anticompetitive conduct by manipulating product standards or by petitioning standard setting bodies to set standards very close to its IP and distinct from its competitors' IP. See Trebilcock *et al.*, *supra* n. 33, at p. 536. In such case, the dominant firm could foreclose entry.

k. Refusal to license IP or supply a product that contains IP[97]

As discussed in Section II(b), the Bureau is generally remiss to require an IP owner to license its technology to third parties. The right to use, or not use, IP is fundamental to IPRs. However, there may be instances where a refusal to license could be considered to be more than the mere exercise of IPRs.[98] This may occur, for example, in a situation where an IP owner is dominant in one product market that involves IP and it leverages that position into a second market whereby it can exercise market power in that second market. The IPEGs give an example of two recording music companies that have joint dominance in the recorded music market and, through that position, are able to gain a dominant position in the digital playback equipment market. In this case, the Bureau described the anticompetitive conduct as the refusal by the joint venture to allow licensees to release the music recordings in a digital format that was compatible with any digital format playback equipment other than the joint venture's equipment.[99]

As is evident from the above discussion, a licensing agreement, either on its own or combined with other conduct or market conditions, can be the foundation for an anticompetitive act within the meaning of Condition 2 (i.e., paragraph 79(1)(b) of the CA). Effectively any conduct that satisfies the condition of being "predatory, exclusionary or disciplinary" and which is adopted for an anticompetitive purpose is potentially caught, so long as the conduct is more than the mere exercise of a valid IPR. At the same time, a delicate balance is required so that competition laws are not used in ways that discourage investments into improvements or the development of new IP or technology. For example, while exclusive licenses have the potential to be anticompetitive, they also have the potential to be, indeed we suspect they are most often, pro-competitive by inducing licensees to make investments in the technology or promote the goods containing the subject IP. The effect that conduct has on competition rather than its form is what counts.

In a case involving an abuse of a dominant position, the Tribunal may make an order prohibiting the continuation of any anticompetitive act(s)[100] or, where a prohibition order is not sufficient to restore competition, directing such actions, including the divestiture of assets or shares, as are reasonable and necessary to overcome the effects of the anticompetitive act(s) in the

[97] An anticompetitive refusal to deal could be dealt with under either or both sections 79 and 75 of the CA. However, as discussed below regarding section 75, the Tribunal has previously held that section 75 cannot apply to the failure to license technology on account of the fact that a licence does not constitute a "product" for the purposes of section 75 (see *supra* Section B.2. of this paper).

[98] The application of the CA to a situation where the refusal to license constitutes the "mere exercise" of the IP is considered in Section D of this paper.

[99] *IPEGs, supra* n. 15, Example 7.

[100] CA, *supra*, s.79(1).

market.[101] Based on prior decisions, it is clear that the Tribunal can order at least the following remedies:

- prohibiting conduct, even where the conduct involves the exercise of IP. This could include, for example, requiring that a firm not enforce the terms of its licence where the Tribunal considers the terms to exceed the exercise of an IPR and to be anticompetitive;[102]
- requiring the supply of a product, even potentially if that product incorporates or is associated by IP;[103] and
- requiring a firm to make its IP available to third parties where it is part of a consent order.[104]

With regard to whether a refusal by an IP owner to license its IP to third parties could constitute an abuse of a dominant position, in *Tele-Direct*, an

[101] CA, *supra*, s.79(2). Subsection 79(3) requires that, in making an order, the Tribunal must try to limit as much as possible any resulting interference with private rights to the extent necessary to achieve the purposes of the order.

[102] In *Nielsen*, *supra* n. 53, the company was prohibited from entering into or enforcing contracts with suppliers that required or induced them to supply Nielsen with data on an exclusive basis or which precluded or in any way restricted suppliers from making such data available to others. Nielsen was also prohibited from enforcing those provisions of its contracts with customers for the supply of scanner-based market tracking services that imposed significant termination costs: *Canada (Director of Investigation and Research) v. The D&B Companies of Canada Ltd.* CT-94/1, Consolidated Order, s. 3 and s. 4 (August 30, 1995) http://www.ct-tc.gc.ca/CMFiles/CT-1994-001_0143c_45QED-4152004-6360.pdf?windowSize=popup ("*Nielsen Consolidated Order"*).

[103] In *Nielsen* for example, the Tribunal required Nielsen to make the historical retailer scanner data that it acquired from suppliers available to actual or potential competitors, provided that these competitors properly compensated Nielsen for its costs and expenses in accordance with the terms of the Tribunal's order: *Nielsen Consolidated Order, ibid* at s. 5. In both *Canada (Director of Investigation and Research) v. Chrysler Canada Ltd.,* CT-88/4, http://www.ct-tc.gc.ca/CMFiles/CT-1988-004_0185a_45QTS-4192004-6055.pdf?WindowSize=popup ("*Chrysler*") at p. 48, and *Canada (Director of Investigation and Research) v. Xerox Canada Inc.,* CT-89/4, http://www.ct-tc.gc.ca/CMFiles/CT-1989-004_0088a_38KLM-4192004-3647.pdf?windowSize=popup ("*Xerox*") at p. 81, the Tribunal required the manufacturers of branded, proprietary products (i.e., products sold under trade-marks and which likely incorporated patented technology) to supply their automotive and photocopier spare parts, respectively, to the person or firm named in the order.

[104] In *Interac*, the charter members of an electronic banking network were alleged to have engaged in a series of anticompetitive acts that restricted membership to that network and allowed the major chartered banks in Canada to maintain control of shared electronic financial services. To ensure competition, the consent order provided qualified commercial entities with, among other things, wider access to the Interac network, while it also required members to provide "commercially reasonable" trade-mark licenses without charge upon request to any member who participated in the shared services: *Canada (Director of Investigation and Research) v. Bank of Montreal et al.* CT-95/2 (June 20, 1996) http://www.ct-tc.gc.ca/CMFiles/0093a38PPG-3102004-67.pdf?windowSize=popup ("*Interac*") at pp. 17–21 and 23–24. Similarly, in *AGT Directory*, the consent order prohibited the respondents from refusing to license the "Yellow Pages" trade-mark to certain companies for use in the sale of advertising in Yellow Pages brand telephone directories to their clients (essentially as brokers), provided that these companies entered into and maintained commercially reasonable standard form trade-mark licences: *Canada (Director of Investigation and Research) v. AGT Directory Limited et al.* CT 9402/19 ("*AGT Directory*"), clause 3(f).

application was lodged with the Tribunal alleging that, among other things, Tele-Direct had abused its dominant position by engaging in a practice of "selective licensing"; namely, that Tele-Direct had refused to license its trade-marks (such as "Yellow Pages", "Pages Jaunes" and its walking fingers logo) to certain competitors on what the Bureau alleged were arbitrary grounds.[105] While the Tribunal agreed that a trade-mark could form the basis of an application under section 79 of the CA, it went on to hold that something in addition to the exercise of an IPR is necessary in order for conduct to be considered anticompetitive. Accordingly, the Tribunal held that Tele-Direct's practice of licensing its trade-mark to only a certain class of third parties did not contravene section 79. Whether the Tribunal can and will order that IP be licensed to a third-party in the context of contested proceedings is uncertain.

2. Specific market restrictions—Sections 75 and 77

While section 79 applies to all forms of predatory, exclusionary or disciplinary conduct, sections 75 and 77 of the CA enumerate certain specific market restrictions that may be made subject to a remedial order.

The Tribunal has confirmed that more than a single provision of the CA can apply to the same conduct.[106] Thus, an application can be lodged concurrently under sections 75 and/or 77 and section 79. However, owing to recent amendments to the CA, the market restrictions in sections 75 and 77 may have particular significance in those circumstances where the Bureau has decided to not challenge conduct (under section 79) as an abuse of a dominant position. Under section 103.1 of the CA, private individuals can apply to the Tribunal for leave to bring an application (to the Tribunal) under sections 75 and 77.[107] This opportunity is not available in respect of matters under section 79. Instead, the Commissioner of Competition (the "Commissioner") is the only person who is entitled to bring an application before the Tribunal under that section, as well as under all of the civilly reviewable provisions of the CA.

2.1. Refusal to deal—Section 75

Section 75 of the CA concerns a refusal to deal (supply). In particular, section 75 provides that the Tribunal may order one or more suppliers to supply a product on usual trade terms to an existing or prospective customer where the Tribunal finds that:

[105] *Tele-Direct, supra* n. 2, at pp. 28 and 29.

[106] *Laidlaw, supra* n. 78, at p. 87.

[107] To date, no application has been made under section 103.1 concerning conduct that specifically involves the exercise of an IPR.

- a person is substantially affected in his business or is precluded from carrying on business because he is unable to obtain adequate supplies of a product anywhere in the market on usual trade terms as a result of insufficient competition among suppliers;
- the product is in ample supply;
- the person is willing and able to meet the usual trade terms for the product; and
- the refusal to deal is having, or is likely to have, an adverse effect on competition in a market.

The Tribunal has considered three cases under section 75. Two of the cases involved a decision by a manufacturer of branded spare parts, in one case automotive spare parts and in the other case copier spare parts, to stop supplying products to their respective distributor(s) in Canada. In both cases the Tribunal considered the relevant product to be the branded products and not automotive spare parts or photocopier spare parts generally. The Tribunal noted that, for the purposes of section 75 of the CA, a relevant product market must be established from the perspective of the customers of the person who has been refused supply and, following that, on the basis of substitutability.[108] While the Tribunal noted that subsection 75(2) confirms that a trademark is not determinative of a relevant product market,[109] it can constitute a market if customers do not regard alternative products to be substitutable for the branded product.[110] In *Xerox* the Tribunal defined the relevant product market to be Xerox proprietary replacement parts.[111]

In *Warner Music*, however, the Tribunal held that, while the definition of "product" in section 2 of the CA (the general definitions section) is sufficiently broad to cover licenses,[112] reference to "product" in section 75 must be interpreted in the context of that section.[113] The Tribunal proceeded to note that a product market for purposes of section 75 could not include a licence because, owing to the exclusionary rights inherent in a grant of IP, it could not be considered to be in "ample supply" or available on "usual trade terms".[114]

[108] *Chrysler, supra* n. 103, at p. 16.

[109] Section 75(2) provides that: "For the purposes of this section, an article is not a separate product in a market only because it is differentiated from other articles in its class by a trademark, proprietary name or the like, unless the article so differentiated occupies such a dominant position in that market as to substantially affect the ability of a person to carry on business in that class of articles unless that person has access to the article so differentiated."

[110] *Chrysler, supra* n. 103, at p. 17.

[111] *Xerox, supra* n. 103, at p. 52.

[112] *Canada (Director of Investigation and Research) v. Warner Music Canada Ltd., Warner Music Group Inc. and WEA International Inc.* CT-97/3, at http://www.ct-tc.gc.ca/CMFiles/CT-1997-003_0022_45LKL-482004-4642.pdf?windowSize=popup ("*Warner Music*") at para. 10.

[113] *Id.,* at pp. 14–15.

[114] *Id.,* at p. 15.

Accordingly, it appears that section 75 applies to conduct involving IP where it pertains to the refusal to supply a product that incorporates IP. In *Warner Music*, however, the Tribunal would not apply section 75 to require an owner of IP to give a licence to a third party so that the third party could produce an intermediate or final product.

Finally, it is worth noting that, unlike under section 79, the Tribunal has held that it is not necessary to establish market power or a substantial lessening of competition under section 75.[115] That said, the Tribunal has also noted that it will take both factors into account when exercising its discretion regarding whether, and if so, on what terms to grant a remedial order.

2.2. Exclusive dealing, tying and territorial restrictions—Section 77

Section 77 of the CA covers the following three categories of conduct:

- *Exclusive dealing*: refers to any practice whereby a supplier of a product, as a condition of supplying a product, requires its customer to either deal only or primarily in products designated by the supplier or to refrain from dealing in products designated by the supplier.
- *Tying*: refers to any practice whereby a supplier of a product, as a condition of supplying a product to a customer, requires or induces its customer to acquire any other product designated by the suppler or to refrain from using or distributing any other product designated by the supplier.[116]
- *Territorial restrictions*: refers to any practice whereby a supplier of a product, as a condition of. supplying a product to a customer, requires its customer, either directly or by imposing a penalty for non-compliance, to sell its product in only a specified geographic area.[117]

It is arguable that the Tribunal's reasons in *Warner Music* for excluding IP from the definition of "product" do not apply under section 77 since under this section there is no need to show that the IP is in "ample supply" or "available on usual trade terms." Instead, the same type of evidence that is necessary to establish an abuse of dominant position under section 79, such as the existence of a "practice," a relevant market (i.e., to satisfy the major supplier/market power condition), market power (i.e., akin to being a major supplier[118]), exclusionary affect and/or substantial lessening of competition, is necessary for establishing the elements of section 77.

[115] *Chrysler, supra* n. 103, at pp. 19 and 45; and *Xerox, supra* n. 102, at p. 58.

[116] See *supra* n. 81 for a more comprehensive description of tying. For purposes of section 77, paragraph 77(4)(b) provides that the Tribunal shall not make an order where, in its opinion, "tied selling that is engaged in is reasonable having regard to the technological relationship between or among the products to which it applies."

[117] Section 77 of the CA defines this conduct as a "market restriction."

[118] In the alternative it can be demonstrated that the practice is widespread in the market.

D. Application of the Competition Act to the mere exercise of an IPR

In exceptional circumstances the CA can be applied to address anticompetitive effects that derive from the *mere exercise* of an IPR. The applicable provision—section 32—is found in Part IV of the CA concerning "special remedies."[119] This is a rather special provision under the CA which has rarely been resorted to.

Under section 32, the Attorney General can apply to the Federal Court for a remedial order where it finds that an IP owner has used the exclusive rights conferred by its IPR in a manner that unduly restrains trade or prevents or lessens competition. In particular, the Attorney General can apply for an order "where use has been made of the exclusive rights and privileges conferred by" IPR to:[120]

a) limit unduly the facilities for transporting, producing, manufacturing, supplying, storing or dealing in any article or commodity that may be a subject of trade or commerce;
b) restrain or injure, unduly, trade or commerce in relation to any such article or commodity;
c) prevent, limit or lessen, unduly, the manufacture or production of any such article or commodity or unreasonably enhance the price thereof; or
d) prevent or lessen, unduly, competition in the production, manufacture, purchase, barter, sale, transportation or supply of any such article or commodity.

The IPEGs explain that this will most typically involve the "refusal to license IP."[121] Whether the Attorney General would invoke section 32 to address conduct that was perceived to unduly exploit an IPR remains to be

[119] The Federal Court of Canada ("Federal Court") is given the power, on application by the Attorney General of Canada ("Attorney General"), to make remedial orders if it finds that a company has used the exclusive rights and privileges conferred by a patent, trade-mark, copyright or registered integrated circuit topography to unduly restrain trade or lessen competition in respect of any article or commodity. The Federal Court can make a wide range of remedial orders including those that: declare void, in whole or in part, or restrain any person from exercising any part of, an agreement, arrangement or licence; direct the licensing of IP on terms and conditions that the Court considers appropriate; revoke a patent; direct that the registration of a trade-market or an integrated circuit topography be expunged; and direct any other acts be done or omitted that the Court considers necessary. When fashioning an order, the Federal Court must take care to ensure that it is not at variance with Canada's international treaty obligations concerning IP: CA, *supra*, s.32(3).

[120] CA, *supra*, s.32(1).

[121] *IPEGs, supra* n. 15, at p. 9.

seen.[122] The anticompetitive effect must be in respect of downstream articles or commodities. The provision does not appear to apply, therefore, to anticompetitive effects in a technology market (or for that matter, in an innovation market) unless it can be demonstrated that the adverse effects in the technology market have unduly restrained trade or lessened or prevented competition in respect of intermediate or final products. Reference to "article or commodity" in subsection 32(1) also means that the provision will not apply to anticompetitive effects in a downstream services market (e.g. where the refusal to license technology unduly restrains the ability of third parties to offer after-sales support services in respect of products that incorporate technology and where access to the IP is necessary in order to provide support services).[123]

The Bureau expects that section 32 will be invoked only in "very rare circumstances"[124] and that the Attorney General likely would seek a remedial order "only on the recommendation of the Bureau."[125] According to the IPEGs, when evaluating the appropriateness of a recommendation to invoke section 32, the Bureau will utilize the following two step approach:

- Whether the exercise of the right "has adversely affected competition to a degree that would be considered substantial in a relevant market that is different or significantly larger than the subject matter of the IP or the products or services which result directly from the exercise of the IP."[126] The IPEGs state further that this requirement will be met only where the IP owner is dominant in the relevant market and the IP at issue is an essential input or resource for firms participating in the relevant market.
- Whether invoking a remedial order would likely stifle further innovation and, more generally, "adversely alter the incentives to invest in research and development in the economy."[127]

The method for assessing the first condition was previously explained. The second condition demonstrates the Bureau's view that the CA should not

[122] One example may be where an IP owner demands an unreasonable royalty and the royalty has effectively precluded the technology from being licensed. Given that paragraph 32(1)(c) of the CA refers to the unreasonable enhancement of prices, it is at least possible that section 32 could be interpreted to include exploitive conduct. On the other hand, the Tribunal has explicitly defined anticompetitive conduct in the context of section 79 (abuse of a dominant position) to be conduct that is "predatory, exclusionary or disciplinary", which excludes exploitive conduct.

[123] "Article" is defined in subsection 2(1) of the CA as real and personal property, whereas "product" is defined as both an article and a service. The competitive harm enumerated in subsection 32(1) can be contrasted with the harm enumerated in subsection 45(1) of the CA concerning conspiracies. In particular, while both subsections 32(1) and 45(1) define anticompetitive effects to be an undue restraint of trade or lessening or prevention of competition, unlike subsection 32(1), subsection 45(1) covers "products" rather than the more restrictive "article and commodity" set out in subsection 32(1).

[124] *IPEGs, supra* n. 15, at p. 9.

[125] *Id.,* at p. 4.

[126] *Id.,* at p. 9.

[127] *Id.*

interfere with valid IPRs except in very limited circumstances. More generally, it demonstrates the Bureau's measured approach to IPRs and to an IP owner's fundamental right of exclusion. The Bureau will consider dynamic efficiencies, both in respect of opportunities for follow-on R&D and for the economy more broadly. The Bureau is unlikely to recommend that a remedial order be sought until it has at least quantified the detrimental impact that its order could have on R&D efforts generally, such as if IP owners begin discounting the value of their exclusive rights in response to the Attorney General's decision to seek an order under section 32 of the CA. Furthermore, the IPEGs note that the Bureau will recommend that section 32 be invoked only where there is no appropriate remedy available under the relevant IP statute.[128]

To date there has not been a single application brought under section 32.[129] Trebilcock *et al.* suggest that at least one reason why the section has not been invoked is that the requirement to establish an "undue" lessening of competition "is a relatively high standard".[130] Moreover, the Bureau has indicated a clear intention to not interfere with IPRs, even where their exercise is adversely affecting competition,[131] except where it is absolutely necessary, namely where "a refusal is stifling further innovation and not simply preventing the replication of existing products".[132] The Bureau recognizes that a liberal application of section 32 could actually do more harm, at least in the long-term, than good in that it could decrease the incentives for R&D and investments into other innovation related efforts. Evidence of this enforcement policy is the Bureau's decision in 2004 to not recommend that an order be sought under section 32 against certain alleged "evergreen"[133] practices by brand name pharmaceutical companies in response to a complaint from organizations representing seniors, pensioners, patient advocates and healthcare activists.[134] Whether or not the impugned conduct had adverse competitive effects, the Bureau considered it more appropriate for the

[128] *Id.* The *Patent Act, supra,* note 6, gives the Commissioner of Patents the power to take remedial action against what it perceives to be abusive or exclusionary conduct in regard to patents. The *Copyright Act* allows for some rights of access, albeit on a much more restricted basis than applies to patents under the *Patent Act*. However, given that the *Patent Act* and the *Copyright Act, supra,* note 6, do allow for some degree of remedial action, it remains to be seen whether, and in what circumstances, the Bureau would be prepared to recommend that section 32 be invoked in the future.

[129] The precursor to section 32 was invoked once, and that was in 1967 and the matter did not go to trial. See: Trebilcock *et al, supra* n. 33, at p. 606, note 103 (citing Anderson R. D., Khosla S. D. and Ronayne M. F. "The Competition Policy Treatment of Intellectual Property Rights in Canada", in Khemani R. S. and Stanbury W. T. (1991): *Canadian Competition Lawand Policy at the Centenary,* Institute for research on Public Policy, Halifax, at p. 497).

[130] *Id.*, at p. 607.

[131] *IPEGs, supra* n. 15, at p. 7.

[132] *Id.,* at p. 9.

[133] An evergreen clause was one of the contract terms considered to be anticompetitive in *Laidlaw, supra* n. 78.

[134] Corley R. and Joneja N. (2005): "Antitrust's Interface With Information Technology and Intellectual Property" in The Antitrust Review of the Americas 2005, Global Competition Review, pp. 89–91, at p. 89.

complaint to be dealt with under the specific regulations concerning patented medicines rather than under the CA.

E. Conclusions on the IP/Competition Law Balance Under Canada's Competition Act

The Bureau's approach to the IP/competition law interface has generally been—as it should be—balanced. This is reflected in the Bureau's enforcement approach and in its guidelines, most notably the IPEGs. The Bureau has demonstrated a clear recognition that "dynamic change and innovation, which are fostered by the protection of IPRs, are increasingly important drivers of economic activity and productivity gains and, in many industries, are now the most important indicia of competition".[135]

The IPEGs confirm that the Bureau applies the CA to conduct involving IP in the same manner as it does to any form of property.[136] While this is undoubtedly the case, it is also true that there is a dearth of (reported) enforcement action and cases before the Tribunal pertaining directly to unilateral conduct involving IP. This is the case despite the fact that IP plays a fundamental role in the Canadian economy. The limited enforcement action and jurisprudence is not because the scope of the CA is too narrow to apply to conduct involving IP or to the exercise of IPRs. The CA is legislation of general application and the provisions that pertain to civilly reviewable conduct, such as an abuse of a dominant position, are broad. Instead, the limited enforcement action and the relatively few Tribunal decisions involving IP reflects a measured approach to the application of the CA to IP.

This not happenstance. The Bureau has stated explicitly in its IPEGs that it recognises the important role that IPRs serve in achieving efficiency and improving consumer welfare. At the same time, IP is not immune from the CA, and both the Bureau and the Tribunal will apply the CA to conduct involving IP in the appropriate circumstance. The same is undoubtedly true of the Attorney General and Federal Court pursuant to the narrow special circumstances of section 32.

We believe that the historic approach by the Bureau and the Tribunal to the intersection of IP and competition laws is generally appropriate. The CA should not be about helping competitors. Indeed, the Tribunal has stated that: "[w]e agree with the general proposition that a firm is not, and should not be, required to "assist" its competitors".[137] This most certainly applies to

[135] Goldman, Corley and Witterick, supra n. 4, at p. 7.

[136] IPEGs, supra n. 15, at p. 1.

[137] Tele-Direct, supra n. 2, at p. 278.

IP. The treatment accorded by the Bureau and the Tribunal to the IP/competition law interface demonstrates their recognition of the delicate balance needed in order to ensure both areas are applied in a manner which allows for the maximization of economic efficiency. This should ultimately enhance consumer welfare.

VII

James S. Venit[*]

Article 82 EC: Exceptional Circumstances The IP/Antitrust Interface After *IMS Health*

A. Introduction

The abhorrence of monopoly so central to antitrust law confronts unique problems in the field of intellectual property rights where the legislator has intentionally created a monopoly to encourage and reward invention.[1] The divergent origins and goals of antitrust and IP law give rise to a problem that is ultimately institutional and whose crux is whether, and to what extent, a regulatory or judicial authority should overrule the express will of the legislator. In the European Union, the Courts have confronted this issue in two principal areas: in cases involving the free movement of goods and those involving refusals to license under the competition rules. In the free movement cases, which will not be discussed in this paper, the conflict has been between the paramount market integration goals of the EU Treaty and the national scope of IP rights. Here the European Courts have come down overwhelmingly in favour of the Treaty by "exhausting" IP rights in favour of free movement principles.[2]

In the area of IP rights ("IPRs) and competition law, the European Courts have been arguably far more protective of IPRs than in the free movement cases. By holding that antitrust principles may trump IPRs only in "exceptional circumstances",[3] the ECJ has imposed an important limit on the

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[1] In economic terms, the tension is between, short-term allocative efficiency and long-term dynamic efficiency. The claims concerning the latter rest on the unrefuted but also unproven Schumpeterian assertion that monopoly will foster innovation. See Schumpeter J. (1942): *Capitalism, Socialism and Democracy*, Rutledge, London. For a recent analysis of the empirical studies assessing these Schumpeterian theories, see Katz M. and Shelanski H. (2004): *Merger Policy and Innovation: Must Enforcement Change to Account for Technological Progress*, NBER Working Paper No. 10170, pp. 37–40.

[2] Under the exhaustion rule, once the owner of an IP right has marketed or consented to marketing a product covered by an IP right in one member state, it can no longer assert its rights to prevent the importation and marketing of the product in another member state. See *inter alia*, Case 78/70 *Deutsche Grammophon v. Metro* [1971] ECR 487; Case 16/74 *Centrafarm v. Winthrop* [1974] ECR 1183; Case 15/74 *Centrafarm v. Sterling Drug* [1974] ECR 1147; and Case 187/80 *Merck v. Stephar* [1981] ECR. 2063.

[3] See *Magill*, *infra* nos. 37 and 38, and *IMS Health*, *infra* nos. 48 and 50. The ECJ noted at para. 26 of *Magill* (Joined Cases C-241 and C-242) that the CFI's analysis in its *Magill* judgment

application of Article 82 EC. Indeed it can be argued that the result in *Magill*[4] was consistent with IP law principles in that the ECJ resolved the conflict between antitrust and IPRs in favour of the latter by linking abuse within the meaning of Article 82 EC with the failure of the dominant firms in that case to exploit their IP rights.[5]

What appears to be a more restrained approach to IPRs in the context of Article 82 EC may at first be surprising given that the creation of an internal market and the creation of a competitive market economy are both fundamental goals of the EU Treaty. However, there is an important difference between the free movement rules—which respond to State measures and which are based on the relatively simple principles embodied in the exhaus-

was derived from the case law under then Articles 30–36 of the Treaty and that its conclusions as to the existence of abuse were rooted in its interpretation of then Article 36 according to which "only those restrictions on freedom of competition, free movement of goods or freedom to provide services which were inherent in the protection of the actual substance of the intellectual property right were permitted in Community law". Notwithstanding the common origin of the free movement and Article 82 EC jurisprudence and the Courts' willingness to override the IP right where, as the ECJ phrased it in para. 28 of *Magill,* given the specific facts of the case it appears that the right is being exercised in a manner "manifestly contrary to the objectives of Article 86", it nevertheless appears that the exceptional circumstances' doctrine developed in *Magil*l is, at least judging from the number of cases, far narrower in its application than the exhaustion of rights doctrine.

[4] Id.

[5] Limiting antitrust enforcement to conduct that goes beyond the scope of the IPRs or that constitutes its misuse, would resolve, in favour of IPRs, the conflict with antitrust law. Where patents are concerned, the principle of patent misuse offers a basis on which IP and antitrust principles can be aligned. However, using the misuse doctrine as a check on antitrust principles runs into difficulty to the extent that the basic principles of the misuse doctrine are similar to or derived from antitrust analysis. See Areeda P. (1974): *Antitrust Analysis*, 2nd edition, Asen Law, at para. 412). However, in some cases, misuse may be found to result from conduct that does not amount to an antitrust violation. See US cases *Motion Picture Patents Co. v. Universal Film Mfg. Co*., 243 U.S. 502 (1917); *Morton Salt Co. v. G. S. Suppiger Co.,* 314 U.S. 488 (U.S., 1942), and *Zenith Radio Corp. v. Hazeltine Research Inc.*, 395 U.S. 100, 140 (1969). In the past under both US and EU law, practices that were deemed to constitute misuse were singled out as meriting *per se* condemnation (or its equivalent under EU law). In the 1970's this doctrine was embodied in what came to be known as the "Nine No-No's", a list of prohibited licensing practices promulgated by the US Department of Justice. Of the practices listed, tie-ins, grant backs, compulsory package licensing, and the charging of unreasonable royalties have been held to amount to misuse under US patent law. See Hoerner R. (1984): "Patent Misuses", 53 *Antitrust Law Journal* 641. A similar but somewhat broader approach was taken in Article 3 of *Commission Regulation 2349/84 of 23 July 1984 on the application of Article 85 (3) of the Treaty to certain categories of patent licensing agreements*, OJ L 219 [1984], the first EU block exemption regulation applicable to patent license agreements. The subsequent shift in the attitude of US and EU regulators to many of these specific practices serve as a reminder that ideas concerning the scope of IPRs and antitrust infringements involving their use (or misuse) are subject to change. (See Lipsky A. (1981): "Current Antitrust Division Views on Patent Licensing Practices", 50 *Antitrust Law Journal* 515, and Griffin J. (1982): "The Demise of the Nine No-No's and Other Significant Changes in US Antitrust Policies Concerning Transnational Technology Licensing", 39 *Swiss Review of International Competition Law* 15. In short, the notion that antitrust enforcement should focus only on areas that are clearly beyond the scope of the IPR or that involve its misuse is analytically appealing. However, its application encounters the practical problem that the misuse doctrine may be something of a chimera.

tion of rights doctrine—and the less clearly defined competition rules whose application to private actors requires complex economic assessments relating to, *inter alia,* market definition, the existence of market power, and what constitutes an abuse within the meaning of Article 82 EC. This difference may explain the Courts' willingness to give greater protection to IPRs in the context of the antitrust laws. If this is the case, that greater caution may reflect overarching institutional considerations.[6]

B. Refusals to Deal: The Interface Between IPRs and Competition Law

The conflict between IPRs and competition law occurs most dramatically under Article 82 EC in the context of refusals to license. Such cases are themselves a sub-species of broader refusals to deal and the Article 82 EC jurisprudence that first took shape in cases like *Commercial Solvents,*[7] *United Brands,*[8] *ABG Oil*[9] and *Télémarketing.*[10] None of these cases involved IPRs and all of them were decided before the European Court of Justice (the "ECJ") took up the IP/competition interface for the first time in *Volvo v. Veng.*[11] However, these earlier non IP cases did develop some of the judicial concepts—the elimination of competition in a downstream market and the lack of an objective justification for the refusal to deal—that have subsequently been applied, albeit with some differences, in the IP cases. Moreover, since the development of the IP strand of cases, there has been a tendency on the part of the European Courts to cite principles of the IP cases in non IP cases, as in *Oscar Bronner*[12] or principles of the non IP cases, in IP cases as in *IMS Health.*

For this reason, it may be useful to begin with an overview of the leading non-IP cases: *Commercial Solvents, United Brands, BP* and *Télémarketing,* all of which preceded the first IP judgment, *Volvo v Veng* and *Oscar Bronner* which was decided after both *Volvo* and *Magill* but before *IMS Health.*

[6] An alternative explanation—that the free movement rules are somehow more central to the Treaty than the competition rules—would appear to founder on Article 3 EC which provides for both (i) an internal market characterized by the abolition, as between member states, of obstacles to the free movement of goods, persons, services and capital (Article 3(c)); and (ii) a system ensuring that competition in the internal market is not distorted (Article 3(g)). On the other hand, the difference in treatment may be explained by the fact that the free movement rules apply to State measures, which have far greater capacity to interfere with the creation of an internal market than do private measures.

[7] *See infra* nos. 12 and 13.

[8] *See infra* nos. 15 and 16.

[9] *See infra* nos. 18 and 19.

[10] *See infra* n. 20.

[11] *See infra* n. 22.

[12] *See infra* n. 21.

1. The non-IP cases: monopolization of downstream markets and unjustified refusals to deal

1.1. Overview of the cases

Commercial Solvents. This case involved vertical integration by a firm into a downstream market and its consequent refusal to supply a chemical product for which it held a worldwide dominant position, to a pre-existing customer that had been active in the downstream market the dominant firm was seeking to enter. The refusal, in a situation that arguably involves classic leveraging as the term is used in this paper—the attempt to extend market power from an upstream into a downstream market—was held to be abusive by the Commission.[13] The ECJ upheld the Commission's finding but in doing so, it stated that an obligation to deal could only be imposed where the refusal to supply would eliminate all competition in the downstream market.[14] For the purposes of this review, the ECJ's analysis is noteworthy in that it can be read as requiring that there be an absolute exclusionary effect *i.e.*, that the conduct result in the creation of a monopoly in the downstream market. In reaching this result, the ECJ did not consider whether the excluded rival was as or more or less efficient than the dominant firm.[15]

United Brands. In this case the Commission had condemned a number of practices as abusive, including discriminatory pricing and the termination of an existing distributor because it had dealt with one of the dominant firm's rivals.[16] In assessing the termination of the existing distributor, the ECJ took

[13] Commission Decision 1972/457/CEE (IV/26.911-ZOJA/CSC-ICI), OJ L 299 [1972].

[14] Joined Cases 6 and 7/73 *Istituto Chemioterapico Italiano and Commercial Solvents v. Commission* [1974] ECR 223.

[15] It has been argued that such a determination should be an essential part of any ruling on exclusionary conduct. See e.g., Elhauge E. (2003): "Defining Better Monopolization Standards", 56 *Stanford Law Review* 253. According to Elhauge, the proper monopolization standard should focus on whether the alleged exclusionary conduct succeeds in furthering monopoly power (i) only if the monopolist has improved its own efficiency or (ii) by impairing rival efficiency whether or not it enhances monopolist efficiency. Where the defendant has improved its own efficiency in order to make a better or cheaper product, it should be free, according to Elhauge, to sell that product at any above-cost price it wants, even though that may shrink rival market share to a size that leaves rivals less efficient. The key is that this conduct can successfully impair rival efficiency only as a by-product of the defendant improving its own efficiency, which enhances the market options available to consumers. Similarly, when a defendant has increased its own efficiency by investing in its intellectual or physical property, a refusal to share that property with rivals should generally be legal because it rewards the improvement in the defendant's efficiency in a way necessary to maintain *ex ante* incentives for investment." *Id.* at 255. Under this approach conduct that is a by-product of increasing the dominant firm's efficiency would not be condemned. On the other hand, Elhauge would condemn discriminatory refusals to deal with parties that deal with the monopolist's rivals and analogous conduct that would successfully enhance monopoly power by impairing the efficiency of rivals, whether or not it enhances the monopolist's efficiency.

[16] Commission Decision 76/353/EEC (IV.26.699- *Chiquita*), OJ L 95 [1976].

into account the relevant facts surrounding the refusal to deal including that the distributor was a longstanding customer whose orders were not out of the ordinary and that the refusal to deal appeared to be based only on the distributor's decision to carry and promote a competing brand.[17] The ECJ did note, however, that a dominant undertaking would be entitled to take reasonable steps to protect its commercial interests, a theme that is repeated in subsequent cases.[18]

ABG Oil. In this case the Commission had treated as an abuse BP's decision not to supply an existing customer during the 1973 and 1974 oil crisis basing its finding of dominance the customer's dependence on BP and not the latter's ability to exercise power in the oil market.[19] The ECJ annulled the Commission's decision on the grounds that the customer was only a spot purchaser whom BP could not be expected to treat the same way as its regular contractual customers. [20] The ECJ also noted that the spot customer was able to overcome the oil crisis without suffering any obvious, immediate and substantial competitive disadvantage or facing elimination.

Télèmarketing. In a reference from a Belgian national court, the ECJ, relying on *Commercial Solvents*, held that a refusal by the dominant television broadcasting channel to permit third parties to provide telemarketing services would constitute an abuse if, without any objective necessity, the dominant broadcasting company reserved a market for itself with the possibility of eliminating competition from other parties.[21] As did *Commercial Solvents, Télémarketing* appears to involve a classical leveraging situation with the dominant broadcaster seeking to extend its monopoly into the provision of a downstream or ancillary service. As stated, the test adopted by the ECJ would appear to be cumulative with an abuse being deemed to exist only where there is no objective justification for the refusal to deal and an exclusionary effect in the downstream market.

Oscar Bronner. This case involved a reference from an Austrian court. In the national litigation the plaintiff had claimed that, in order to compete it required access to its rival's newspaper distribution network—the only nationwide home delivery service in Austria. It appears that the defendant

[17] Case 27/76 *United Brands v. Commission* [1978] ECR 207.

[18] The Commission developed this idea further in another refusal to deal case, *see* Commission Decision 1987/500/EEC (IV/32.279-*BBI/Boosey & Hawkes*: Interim Measures), OJ L 286 [1987]. Here the Commission required a dominant firm to supply a distributor that had integrated into the upstream market but noted that such obligation would not apply, *inter alia,* if the distributor promoted the dominant firm's products as a loss leader.

[19] Commission Decision 1977/327/EEC (IV/28.841-*ABG/ Oil companies in the Netherlands*), OJ L 117 [1977].

[20] Case 77/77 *Benzine en Petroleum Handelsmaatschappij BV and Others v. Commission* [1978] ECR 1513.

[21] Case 311/84 *Centre belge d'études du marché—Télémarketing (CBEM) SA. v. Compagnie luxembourgeoise de télédiffusion SA and Information publicité Benelux SA* [1985] ECR 3261.

had not reserved use of its home delivery service to itself but had made that service available to at least one rival. In its response to the national court's questions, the ECJ reiterated that a refusal to supply would only constitute an abuse if it would eliminate all competition in the newspaper market.[22] With reference to *Magill*, the Court further noted that the refusal must not be objectively justified and that the refused product or service must be indispensable for carrying on the customer's business without there being any actual or potential substitute.

Bronner is an important case for at least two reasons. First, the ECJ required the plaintiff to show that there was no alternative to access to the dominant firm's distribution network, thus imposing some fetters on the uncontrolled extension of the essential facilities doctrine.[23] Second, because it appeared from the record that the defendant, Mediaprint, had offered its home delivery service to a third party, *Bronner* could be said to involve elements of two-market leveraging.

1.2. Leveraging v. dependence in the non-IP cases

The four judgments decided before two of the three leading IP cases, *Volvo v Veng* and *Magill,* established the analytic framework and principles that the European Courts were to apply in the IP cases, and *Oscar Bronner* was cited prominently in the last of the major IP cases, *IMS Health*. The key structural elements transposed from the refusal to deal to the IP cases are (i) the refusal to supply an indispensable input in order to monopolize a "downstream" market (*Commercial Solvents, Télémarketing* and *Oscar Bronner)* and (ii) a test for assessing whether a refusal to deal is objectively justified (*United Brands* and *ABG Oil*).

It is important to note that under the first point, the non IP cases do not consistently require that the dominant firm be engaged in leveraging as a precondition to establishing the existence of an abuse. This element was absent from both *United Brands* and *ABG Oil* and if it was ever a requirement of EU law in non IP cases, the ECJ appears to have eliminated this requirement in *Oscar Bronner*.

In *Bronner*, extensive attention was paid to the need to establish the existence of a separate upstream market for home delivery services with, *inter*

[22] Case C-7/97 *Oscar Bronner GmbH & Co. KG v. Mediaprint Zeitungs* [1998] ECR I-7791.

[23] The essential facilities doctrine has accurately been described as "an epithet in need of limiting principles." See Areeda P. (1990): "Essential Facilities: An Epithet in Need of Limiting Principles", 58 *Antitrust Law Journal* 841. For a critique of the overly broad application of this doctrine, see Kallaugher J. and Venit J. (1995): "Essential Facilities: A Comparative Law Approach", in Hawk B., ed., *International Antitrust Law & Policy 1994*, New York, Juris Publ.. In its recent *Trinko* ruling, the US Supreme Court served notice that it has never endorsed the essential facilities doctrine. See *Verizon Communications Inc. v. Trinko*, 124 S. Ct. 872 (2004).

alia, the Commission arguing for the necessity of this requirement.[24] However, this requirement became irrelevant when the ECJ lost interest in the question of whether Mediaprint's home distribution service had been offered to third parties. Instead the Court focused on whether access to this service was indispensable to compete on the newspaper market. Citing alternative possibilities, the ECJ determined that it was not. That conclusion also appears to have involved the corollary that home delivery services were not a distinct relevant market because other means of distribution were substitutable for this service.[25] Through this process of reasoning the Court reversed the normal order of the analysis in a leveraging case. In the process it effectively eliminated any separate market requirement replacing it with the need to show that the input to which access is requested is indispensable. This approach is consistent with the dependency theory of dominance implicitly accepted by the ECJ in *ABG Oil* and *Magill.* Under that theory, dominance results not from the existence of conventional market power as evidenced by the maintenance of a high market share on a relevant product market but because of customer dependence (on the supplier of oil in a time of shortage in *ABG Oil* and on the owner of copyrighted TV program listings needed for a weekly TV guide in *Magill*).

2. The IP cases

The European Courts have now examined the interface between antitrust law and IPRs in a sufficient number of cases for there to have emerged a discernible picture of the fundamental relationship between the two. Although there are unanswered questions as to how the principles adopted by the Court will be applied, it is fair to say that, in contrast to the Commission, the ECJ has developed a conservative approach that significantly limits the extent to which antitrust law principles may be applied to a refusal to license IPRs. It is interesting to note that this approach has evolved in cases which have dealt with IPRs that are arguably much weaker than patents. Although this does not suggest that the rules are likely to be even stricter where patents are

[24] See *Bronner*, *supra* n. 21, at para. 29. The Commission argued that the conditions for applying Article 86 EEC (as Article 82 EC was then denominated) would apply only if there were a separate market for home delivery services and the defendant held a dominant position in that market.

[25] *Id.* In para. 34 the CFI effectively merged the two inquiries by noting that there would not be a separate market for home delivery services if other methods of distributing daily newspapers such as sales in shops, at kiosks, or by mail were interchangeable with home delivery. Then in paragraphs 41–47, it concluded that there were other methods of delivery and that there was therefore no abuse because a home delivery service was not indispensable to competing successfully in the downstream newspaper market.

involved,[26] it does suggest that the arguable weakness of some of the IPRs involved in the decided cases may not provide the explanation for the ECJ's approach.[27]

2.1. Overview of the cases

Volvo v. Veng. This case involved a reference from a national court in the context of a dispute relating to UK design copyrights, the United Kingdom Registered Designs Act of 1949, which conferred a monopoly on the designer of body panels used for repair and replacement of the original body panels of its motor vehicles. The design copyright in question applied to automotive spare parts by virtue of their having been reduced to a drawing, even though

[26] Prior to Microsoft (*infra* n. 65) some encouragement as concerns patents could be derived from the *Lederle* case which involved the Commission's rejection of a complaint in one case involving patents. See *Lederle*, in European Commission, *24th Annual Report on Competition* at para. 353. In this case, the European Commission held that it was highly doubtful whether there was a duty for dominant companies to license patent rights to competitors for the manufacture of the same product as the patent holder manufactures itself—especially, in R&D intensive industries. In this case, Lederle had lodged a complaint alleging that Pasteur Mérieux, Merck and SKB were abusing their dominant positions in various EC Member States by not supplying and licensing the registration documents for Hepatitis B vaccine to Lederle for inclusion in a multivalent vaccine being developed by Lederle. The Commission stated that it was highly doubtful whether Article 82 EC imposed an obligation upon a dominant firm to share its intellectual property rights with third parties to allow them to develop, produce and market the same products which the alleged dominant firm was also seeking to develop, produce and market, especially in sectors such as the vaccine sector where R&D required high levels of investment. The Commission further noted that even a refusal to supply could not be considered as an abuse as Lederle was not *an existing customer* that had found itself in a situation of factual dependence for the supply of the Hepatitis B vaccine. The Commission's approach in *Microsoft* has now provided a clear indication that it is prepared to apply Article 82 EC to compel the granting of licenses even where 'strong' IP rights are involved where it concludes that such licenses are required to prevent monopolization of a downstream market.

[27] Some commentators have taken the view that the IP rights in cases like *Volvo* (*infra* n. 28), *Magill* (*infra* n. 39) and *IMS* (*infra* n. 48) were 'weak' and that this factor underlies the Courts' approach, the implication being that circumstances would have to be "more" exceptional in order to require access in a case involving a patent. See e.g*.*, Forrester I. (2005): "EC Competition Law as a Limitation on the Use of IP Rights in Europe: Is there a Reason to Panic?", in Ehlermann C.-D. and Atanasiu I, eds., *European Competition Law Annual 2003: What Is an Abuse of a Dominant Position?*, Hart Publ., Oxford and Portland, Oregon, 503–524. Whilst this argument is superficially appealing, the *Magill* courts appear to have taken the copyrights in those cases most seriously in identifying the exceptional circumstances in which the IPR owner's rights to refuse to license may be overridden by competition law concerns.. Thus it is not clear that an even narrower rule would be forthcoming in a case involving patents. However, there is one area where the application of one of the conditions identified in *Magill* and *IMS Health* could differ where patents are involved. In the case of a patent covering an innovative product the IPR owner will have the argument that forced licensing reduces the incentive to innovate and that the refusal to license is therefore justified by the incentive system implicit in patent law. Where, as in the case of weekly television listings, the IPR does not protect innovation, this argument will not be available.

there was no originality involved. Such rights were recognized in the UK but not elsewhere.[28]

In its judgment,[29] the ECJ first noted that, in the absence of Community harmonization measures, the member states were free to determine the scope of the protection to be afforded design copyrights under national law.[30] The Court then stated that the right of the owner of a design copyright to prevent third parties from manufacturing, selling or importing products incorporating its design right without its consent constitutes the very subject matter of the exclusive right.[31] According to the ECJ

> ". . . an obligation imposed upon the proprietor of a protected design to grant third parties, even in return for a reasonable royalty, a license for the supply of products incorporating the design would lead to the proprietor being deprived of the substance of its exclusive right . . ."[32]

Had the ECJ stopped here, it would have produced a judgment that absolutely preserved the existence of IPRs against any and all countervailing claims under competition law. However, it did not stop there. Rather, the Court went on to state that

> ". . . the exercise of an exclusive right by the proprietor of a registered design in respect of car body panels may be prohibited by Article 86 if it involves certain abusive conduct."[33]

With that sentence, the ECJ crossed the theoretical line insulating IPRs from the application of the competition rules. Having done so, it then proceeded to identify three situations in which the design copyright owner's ability to enjoy its monopoly IP right would be limited. These were where the

[28] The UK design copyright legislation conferred copyright on the design of spare parts as a result of their being reduced to a drawing. In 1986 the House of Lords limited the scope of this legislation as it applies to spare parts by ruling that there was a 'spare parts exception' that permitted the copying of British Leyland's exhaust pipes. See *Leyland Motors Corporation v. Armstrong Patents co Limited,* 1986 AC 577, 27 February 1986.

[29] Case 238/87 *AB Volvo v. Erik Veng* [1988] ECR 6211.

[30] *Id.* at para. 7.

[31] *Id.* at para. 8. In doing so, the ECJ relied on the at best artificial distinction, developed in the free movement jurisprudence. *(*See *inter alia,* Case 78/70 *Deutsche Gramaphon v. Metro* [1971] ECR 487) between the existence of an IP right which, absent harmonization, can never infringe Community law and its exercise which may.

[32] *Id.* at para. 8. The ECJ went on to note that for the same reasons, the refusal to grant a license could never by itself constitute an abuse of a dominant position. The approach is similar to that followed by the US courts. See *Data Gen. Corp. v. Grumman Sys. Support Corp*., 36 F.3d 1147 (1st Cir., 1994) at 1187: "We must not lose sight of the need to preserve the economic incentives fuelled by the Copyright Act, but neither may we ignore that tension between the two very different policies embodied in the Copyright Act and the Sherman Act, both designed ultimately to improve the welfare of consumers in our free market system. Drawing on our discussion above, we hold that while exclusionary conduct can include a monopolist's unilateral refusal to license a copyright, an author's desire to exclude others from use of its copyrighted work is a presumptively valid business justification for any immediate harm to consumers."

[33] *Id.* at para. 9.

right owner (i) arbitrarily refused to supply spare parts to independent repairers; (ii) set prices for spare parts at an unfair level; or (iii) ceased to produce spare parts for a particular model still in circulation.

The three situations identified by the ECJ as amounting to an abuse appear to be distinct, rather than cumulative. It would also appear that in identifying the three abusive situations the ECJ focused on consumer harm,[34] expressly in one case where it identified the charging of unfair (*i.e.,* supra-competitive) prices and indirectly in the other two cases where it identified conduct that would restrict output (ceasing to supply body panels for existing models) or eliminate competition in a downstream market (refusing to supply body panels to independent repair shops).

It should be noted that the three potential abuses identified by the ECJ are qualitatively different and identify three different fields for possible antitrust intervention. The first—the charging of excessive prices—arguably comes squarely within the scope of the IP monopoly and indeed is intended as a reward and incentive to invention. Here, the conflict between antitrust and IP principles is absolute and the application of the former intrudes on the essence of the IPR. The second form of abuse—the refusal to supply protected body panels to independent repair shops—would also come squarely within the scope of the IP monopoly. In this second example, there may exist a potential antitrust-based justification for intervention on the basis of leveraging—the use of IPRs to extend the monopoly from an upstream market (spare body parts) to a downstream market (repair services), with the existence of an upstream market being inferred from the fact that Volvo supplied body parts to its authorized dealers. Whereas the impermissibility of leveraging has been accepted in certain cases under antitrust law, its recognition in the IP context has not always been consistent. When applied, leveraging theories have been limited to cases such as tying,[35] extension of the

[34] To the extent it focused on the impact on consumers, the ECJ went beyond the level of generalities such as ‘performance-based competition’ or ‘competition on the merits’ by identifying concrete practices that would arguably lead to higher prices and consumer harm. The Court did not, however, consider whether the charging of higher prices would be justified in relation to the prices charged for the new vehicle (although the Italian government in its intervention did raise this point) and thus did not engage in the type of analysis later advocated by the Commission in cases relating to original equipment and consumables. *See* Pelikan/Kyocera, 25th Annual Report on Competition at para. 87 in which the Commission departed from the doctrine established in *Hugin v. Commission*, (Case 22/78 *Hugin Kassaregister AB and Hugin Cash Registers Ltd v Commission* [1979] ECR 1869) that a supplier of original equipment holds a dominant position for its own spare parts. In *Pelikan/Kyocera,* the Commission stated that a supplier of original equipment should not be deemed to hold a dominant position for its consumables where (i) there was effective competition in the market for the original equipment; (ii) purchasers of the original equipment were well informed about the pricing of consumables; and (iii) the relationship between the capital cost of the original equipment and cost of consumables was such that buyers would readily switch to another supplier of original equipment if faced with an increase in the price of consumables.

[35] See Commission Decision 1979/86 (IV/C-29.290 *Vaessen/Morris*), 1979 O.J. (L 19) 32. The Commission has subsequently modified considerably its rigid opposition to tying linking it to the

IP right to unprotected products[36] or attempts to secure the exclusive transfer of third-party IPRs[37] in which it was claimed that the conduct objected to went beyond the scope of the IPR. However, the refusal to supply products protected by IPRs to third parties would appear to come within the scope of the IP monopoly even where it leads to monopolization in a downstream market in which the protected products are sold as part of a service. Thus, the second form of abuse identified by the ECJ would also appear to conflict with the IPR.

In contrast, the third potential abuse—non-exploitation—is not consistent with the scope of the IPR and would be condemned under IP principles which authorize the granting of licenses of a right where the right holder fails to exploit its invention.

Given the foregoing, it would appear that the ECJ's *Volvo* ruling intruded on the province of the exclusive right by reducing the owner's scope for exercising its monopoly rights in a manner inconsistent with the legislator's intent as concerns the first two situations the Court identified as abusive. Conversely the third abusive situation—non-exploitation—would not involve a conflict between antitrust and IP law principles.

Magill. In its 1988 decision the Commission had held that three television broadcasters held a dominant position for their own weekly program listings and had abused that dominant position by asserting the copyrights in their weekly TV program schedules to prevent the publisher of a weekly television program guide from listing their programs where no comprehensive weekly television program guide covering all three stations was available to the Irish public.[38] The Court of First Instance upheld the Commission's decision on the grounds that, while the exercise of an IPR could not in itself be an abuse, there might be exceptional circumstances in which it could be.[39] The CFI's judgment was appealed to the ECJ by two of the Irish broadcasters.

In its judgment, the ECJ upheld the Commission's decision. Adopting the approach in *Volvo v. Veng,* the ECJ first noted that the refusal by a dominant

existence of market power not the patent. See *Commission Regulation 772/2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements*, OJ L 123 [2004]; and *Commission Guidelines n the Application of Article 81 of the EC Treaty to technology transfer agreements*, OJ C 101 [2004], at paras. 191–195.

[36] *See* Commission Decision 1983/400 (IV/29.395—*Windsurfing International*), OJ L 229 [1983], affirmed by the Court of Justice in Case 193/83 *Windsurfing v. Commission* [1986] ECR 611.

[37] See *In re Matter of Intel Corp.*, Docket No. 9288. June 8, 1998. In its first Patent Licensing regulation, the Commission identified in Article 3 conducts that it then viewed as going beyond the scope of the patent: tying, grant backs, no-challenge clauses etc. (*Commission Regulation (EEC) No 2349/84 of 23 July 1984 on the application of Article 85 (3) of the Treaty to certain categories of patent licensing agreements*, OJ L [1984]).

[38] Commission Decision 1989/205/EEC (IV/31.851-*Magill TV Guide/ITP, BBC and RTE*), OJ L 78 [1989].

[39] Case T-69/89 *RTE v. Commission* [1991] ECR 485 and Case T-76/89 *ITP v. Commission* [1991] ECR II- 575.

firm to grant a license cannot, in and of itself, constitute an abuse.[40] However, the ECJ went on to rule that the exercise of the IPR may, *in exceptional circumstances*, constitute an abuse.[41] Thus, as in *Volvo v. Veng*, the ECJ once more crossed the line between the absolute immunity of an IPR from the application of the antitrust laws by recognizing, at least in principle, the possible application of the antitrust rules to the exercise of IPRs although it also said this would only be the case where there are exceptional circumstances.[42]

The ECJ then identified the required 'exceptional circumstances'[43] as involving three conditions: (i) the product to which the refusal to supply relates is an indispensable input required for the marketing of a new product *which the holder of the IPR does not offer* (emphasis added) and for which there is a potential demand; (ii) there is no justification for such refusal; and (iii) the dominant company reserves for itself a secondary downstream market.[44]

Of the three conditions, the first could fall within the scope of abusive conduct that would be recognized under IP law—the failure to exploit the statutory monopoly—given that none of the Irish broadcasters offered a comprehensive weekly guide of all Irish television programs. Seen from this perspective, requiring a compulsory license to remedy this abuse would arguably not involve a conflict between IP principles and the application of Article 82 EC.[45] Indeed, leaving aside the other conditions identified by the

[40] Joined Cases C-241/91 P and C-242/91 P *RTE and ITP v. Commission ('Magill')* [1995] ECR I-743.

[41] *Id.* at para. 50.

[42] *Id.* at para. 50.

[43] The "exceptional circumstances" test is an attempt to balance the conflicting claims of the statutory monopoly granted under IP law with competition law concerns about the exclusionary effects of the IP monopoly right. As such these cases represent a specific application of the rule of reason analysis applied in refusal to deal cases.

[44] Joined Cases C-241/91 P and C-242/91 P (*Magill*), *supra* n. 39, at paras. 52–58. As can be seen from the discussion of the non IP cases, the reference to a secondary market does not imply any rigorous determination as to the existence of a primary upstream market. Such a market arguably existed in *Commercial Solvents* (*supra* nos. 12 and 13), *Télèmarketing* (*supra* n. 20) and, to the extent home delivery services and replacement body panels had been made available to third parties in respectively *Bronner* (*supra* n. 21) and *Volvo v. Veng* (*supra* n. 28). However, the existence of an upstream market was not rigorously established in *Volvo v. Veng, Bronner* or for that matter in *Magill,* so that even before *IMS Health* (*infra* n. 48), it appears that the requirement for two-market leveraging as a precondition for overriding IP rights on antitrust grounds had not been rigorously established by the European Courts. (In *Magill* the existence of an upstream market in respect of guides for the programs of an individual broadcaster could be inferred by the fact that such guides were offered. However, the downstream monopolization claim in *Magill* is unusual in the sense that the dominant firms did not seek to monopolize the downstream market for themselves, but rather simply prevented others from entering or creating it.)

[45] It can be argued that, since none of the three broadcasters could, by itself, satisfy demand for a composite TV Guide, the failure to exploit element in the *Magill* test goes beyond a form of misuse and is really intended to strike at the stifling of an innovative product using the failure to exploit as a mere pretext. This argument is, however, not convincing because cooperation between the three broadcasters to produce their own weekly TV guide was, in theory, possible.

ECJ, the first condition can be seen as imposing a significant constraint on any right of access by reducing the right to access in the IP context only to cases in which the right holder is not itself exploiting the IPR. This is because the first condition requires two elements—the indispensability of the input *and* the failure of the IPR owner to exploit its rights to offer the "downstream" product. Whereas under refusal to deal cases such as *Bronner* the former, by itself would sufficient for there to be an abuse, (absent objective justification and provided the refusal eliminated competition in the downstream market) in the IP context the ECJ required something more—the failure of the IP owner itself to satisfy demand in the downstream market. In effect, this part of the *Magill* judgment combines into one necessary but not sufficient condition two of the abusive situations identified in *Volvo v. Veng:* the refusal to license third parties to operate in the downstream market *and* the failure of the IP owner to exploit its rights there by not supplying the protected products. In so doing, *Magill* arrives at a result which, in contrast to that in *Volvo v. Veng,* limits the imposition of antitrust principles on IPRs.

The status of the second condition identified by the ECJ depends on whether "objective justification" includes the reward for, and incentive to, innovation that underlies the grant of a monopoly under IP law. The EU Courts have not to date elaborated on the meaning of this condition in the IP context so that it remains something of a black hole. To the extent the ECJ would accept that the refusal of the IP owner to grant licenses can be 'objectively' justified by the preservation of the incentive to innovate through the reaping of its monopoly reward, this condition would also be consistent with IP law.

The third condition identified by the ECJ—reservation for the dominant firm of the "secondary" or "downstream" market is arguably the only condition inconsistent with the existence of the IPR since a refusal to license is inherent in the monopoly conferred by the IPR. Thus, if this condition were not merely a necessary condition, but instead sufficient in is own right to trigger the obligation to grant a license, it would involve the imposition of antitrust norms on IPRs.

At the time it was decided, the great uncertainty arising from *Magill* was whether the three conditions were cumulative or separate. If they were cumulative, it could be argued that, correcting an excess in *Volvo v. Veng,* the ECJ had crossed back over the line between IPRs and antitrust law by making the IP owner's unjustified failure to exploit the IPR itself—which would also be condemned under IP law—a pre-condition for granting a compulsory license. As will be seen from the discussion that follows, the ECJ subsequently established that the three *Magill* conditions are cumulative,[46] thereby

[46] *See* IMS Health (*infra* n. 48). As discussed below, this view is apparently not shared by the Commission which, in its *Microsoft* decision has treated the *Magill* conditions as merely illustrative alternatives.

significantly narrowing the approach adopted *Volvo v Veng*.[47] Moreover, it did this despite the fact that *Magill* also involved a dubious form of copyright protection—TV program schedules—and, as such, a form of intellectual property whose claims to protection may be more dubious than those involving innovative creative effort. Yet, despite the arguable weakness of the underlying IPR, the ECJ's approach was strongly protective of the right, something that suggests that the outcomes of the EU cases to date have not depended on the nature of the IP right and that one cannot therefore necessarily expect a different and more deferential approach from the Courts where patent rights are concerned.[48]

IMS Health. This case, which gave rise to four separate judgments[49] (three interim orders—two by the CFI and one by the ECJ—and one judgment by the ECJ), is the last, and thus most authoritative pronouncement to date on the interface between Article 82 and IPRs.[50] As such, it merits careful study.

[47] Ironically, in *Magill*, the Commission had sought to argue that the defendants had engaged in two of the abusive forms of conduct identified by the Court in *Volvo*: refusing to provide an input to independent third parties and non-exploitation of IP rights.

[48] *See* discussion in *supra* nos. 25 and 26.

[49] The four cases were: (i) an interim ruling on IMS' appeal of the Commission's interim measures decision pursuant to which the Commission's interim measures order was suspended until the final order on interim relief was issued by the CFI (Case T-184/01R *IMS Health Inc. v. Commission,* Order of the President of the Court of 10 August 2001, [2001] ECR II -2351); (ii) the final order of the President of the Court of First Instance suspending the Commission's interim measures decision in Case T-184/01R *IMS Health Inc v. Commission,* Order of the President of the Court of 26 October 2001, [2001] ECR II-03193; (iii) the order of the ECJ rejecting the appeal brought by the complainant, NDC Health, of the CFI's order suspending interim measures in Case C-481/01P(R), Order of the President of the Court of Justice of 11 April 2002, [2002] ECR I-3401; and (iv) a reference to the ECJ from a German court on litigation arising out of IMS' attempts to get an injunction from the German courts restraining NDC from infringing its copyrighted product in Case C-418/01, Judgment of 29 April 2004, Case C-418/01 *IMS Health and NDC Health v. Commission* [2004] ECR I-3401. In addition to the above, the CFI issued an order stating that, following the Commission's withdrawal of its decision on 13 August 2003, there was no need to issue a decision annulling the Commission's decision. *See* Order of the Court of First Instance of 10 March 2005, in Case T-184/01 *IMS Health v. Commission.*

[50] Between *Magill* and *IMS Health*, there was one CFI judgment involving the licensing of IP rights. See Case T-504/93 *Tiercé Ladbroke SA v. Commission* [1997] ECR II- 923, in which the CFI upheld the Commission's decision to reject a complaint in which the complainant, Ladbroke, had argued that Pari Mutuel International S.A ("PMI") and or collectively PMI and the société des courses had abused a dominant position by refusing to license Ladbroke to retransmit videos of French horse races in Belgium. *Ladbroke* is not relevant to the issues being pursued in the discussion of *Magill* and *IMS Health* herein because (i) it is a judgment of the CFI, not the ECJ; and (ii) the decisive element in the case was the CFI's factual determination that the ability to retransmit televised pictures and sound coverage of French horse races in Belgium was not indispensable for the successful provision of bookmaking services in Belgium inasmuch as Ladbroke, the applicant, had the largest share on the Belgian bookmaking market (*see Ladbroke* at paras. 130–132.) Although the CFI purported to be following *Magill* (*see Ladbroke* at para. 130), it appears to have departed from the approach in *Magill* (as subsequently clarified by the ECJ in *IMS Health*) by treating the *Magill* conditions are separate as opposed to cumulative. (See *Ladbroke* at para. 131 in which the CFI states that there may be a duty to license where access to the IP rights in question is essential or (emphasis added) the introduction of a new product will be prevented. The CFI's reference to the fact that no other licenses had been granted

At the relevant time, IMS Health held a leading position for the gathering and supply of data on deliveries of pharmaceutical products to pharmacies by wholesalers. For Germany, the country involved in the Commission's decision, IMS and its customers had developed a geographic format for presenting this data which had become the *de facto* industry standard. This structure divided Germany into 1,860 zones or "bricks" each corresponding to a postal code. IMS provided its customers with data on deliveries, prices and volumes for each of these zones. IMS copyrighted the brick structure, asserted its copyright to prevent rivals from using it and thus prevented them from presenting data in the only way acceptable to German customers. IMS' rivals, most prominently among them NDC, challenged before the German courts IMS' use of its copyright to prevent them from competing. NDC also filed a complaint with the Commission, seeking interim measures.

In its decision granting interim measures,[51] the Commission sought to extend the "exceptional circumstances" doctrine established in *Magill* by requiring a compulsory license in a situation in which the relevant IPRs were being exploited by the allegedly dominant firm on the same market as the one from which NDC had been excluded and on which NDC was seeking to offer a "me-too" product. As such, the case raised two key issues: (i) whether the three conditions identified by the ECJ in *Magill* were cumulative; and, if not (ii) whether it was necessary, in order to establish an abuse, that the refusal to license involve the leveraging by the IP owner of its dominant position on an upstream market into a downstream market.

Of the four cases to which *IMS Health* gave rise, the final order of the CFI[52] and the judgment of the ECJ on the reference from the Landgericht of Frankfurt[53] are the two most important judicial pronouncements for our purposes.

In his order definitively suspending the Commission's interim measures decision, the President of the CFI, Judge Vesterdorf, concluded that there was at least a serious dispute as to the Commission's preliminary conclusion in its interim measures decision that the prevention of the emergence of a new product for which there is potential consumer demand is not an indispensable element of the exceptional circumstances identified by the ECJ in *Magill*.[54]

for Belgium as a justification for the refusal to license is also somewhat disturbing because it suggests (in application of the rule against discrimination by dominant firms) that a dominant firm must license everybody in a given geographic market once it has licensed somebody there. (See *Ladbroke* at paras. 127–129).

[51] Commission Decision 2002/165/EC (Case Comp D/338.944—*NDC Health v. IMS Health*—Interim measures) OJ L 59 [2002]; withdrawn by Commission Decision 2003/741/3C of 13 August 2003 (Case COMP D/3/38.044—*NDC Health v. IMS Health*) 0J L 268 [2–3].

[52] *See* Case T-184/01 R, *supra* n. 48.

[53] *See* Case C-418/01, *supra* n. 48.

[54] *See* Case T-184/01 R, *supra* n. 48, at para. 102.

This issue and the other key issue—whether two-market leveraging is a necessary element of abuse in a case involving a refusal to license IPRs[55]—were addressed by the ECJ in its judgment responding to the questions posed by the Landgericht of Frankfurt in the German litigation resulting from IMS' infringement suit against NDC.

On the first point, the ECJ, rejected the Commission's assertion in its interim measures decision and confirmed that the three conditions established in *Magill* are cumulative. In particular, it stated in paragraph 38:

> "It is clear from the case-law that, in order for the refusal by an undertaking which owns copyright to give access to a product or service indispensable for carrying out a particular business to be treated as abusive, it is sufficient that *three cumulative conditions* (emphasis added) be satisfied, namely that that refusal is preventing the emergence of a new product for which there is potential consumer demand, that it is unjustified and such as to exclude any competition on a secondary market."[56]

It should be noted that in affirming the cumulative nature of the *Magill* test, the ECJ repeated the latter's first condition, referring to preventing the

[55] *IMS Health* triggered a published debate on whether leveraging was a necessary requirement for compulsory licensing under US law. According to Pitofsky, Patterson and Hooks, compulsory licensing can be required under US law where the IP right is deemed to be an essential facility without market leveraging. See Pitofsky R., Patterson D. and Hooks J. (2002): "The Essential Facilities Doctrine Under US Antitrust Law", 70 *Antitrust Law Journal* 443. According to Marquardt and Leddy, US courts will require licensing only where the essential facilities doctrine is combined with leveraging by the monopolist IP holder into a secondary downstream market. See Marquardt P. D. and Leddy M. (2003): "The Essential Facilities Doctrine and Intellectual Property Rights: A Response to Pitofsky, Patterson, and Hooks", 70 *Antitrust Law Journal* 847. To the extent that Section 2 of the Sherman Act prohibits monopolization as opposed to the mere existence of market power, it would appear that the possibility of successful leveraging in a downstream market is an indispensable requirement in an IP case brought under Section 2 if the existence of IP rights is to be maintained. Although the ECJ may have considerably weakened the market leveraging requirement in *IMS Health*, it compensated for this by requiring that the new product for which the license was sought be a truly innovative one that is not offered by the owner of the IP right.

[56] Case C-418/01 *IMS Health v. Commission*, *supra* note 48, at para. 38. The German text of this paragraph is somewhat clearer in that it avoids the awkward use of the word "sufficient" which appears to have resulted from an overly literal translation of the French text which uses the expression "il suffit" i.e.; "it suffices that" "Wie aus dieser Rechtsprechung hervorgeht, handelt ein Unternehmen, das über ein Recht des gesitigen Eigentums verfügt und den Zugang zu Erzeugnisen oder Dienstleistungen verweigert, dis für eine bestimmte Tätigkieit unerlässlich sind, bereits dann missbräuchlich, wenn drei Bedingungen kumulativ erfült since: Die Weigerung muss das Auftreten eines neuen Erzugnisses verhindern, nach dem eine potenzielle Nachfrage der Verbraucher besteht, sie darf nicht gerechtfertig sein, und sie muss geeignet sein jdglichen Wettberzerb auf einem abgeleiteten Markt auszuschliesen ". The operative parts of all three judgments also make it clear that these three conditions are both necessary (as well as cumulatively sufficient): "The refusal by an undertaking which holds a dominant postion and owns an intellectual property right . . . to grant a license . . . constitutes an abuse . . . where the following conditions are fulfilled: . . ." "Le refus, opposé par une entreprise qui détient une position dominante et qui est titulaire d'un droit de propriété intellectuelle . . . d'octroyer une license . . . constitute un abus . . . lors que les conditions suivantes sont réunies: . . ." « Die Weigerung eines Unternehmens, das eine beherrschende Stellung innehat und Inhaber eines Rechtes des geistigen Eigentrums . . . eine Lizenz . . . zu erteilen . . . tellt einen Misbrauch . . . dar wenn folgended Bedingungen efrüllt sind: [. . .]".

introduction of a "new" product for which there is potential demand and which was not offered by the holder of the IPR. As will be discussed below, since IMS was exploiting its IPRs, this part of the *Magill* rule results in an outcome that conflicts with IPRs in a way in which the same test when applied to the facts in *Magill* did not.

On the second point the ECJ began its analysis with a reference to the *Oscar Bronner* case.[57] As has already been noted, *Bronner* did not involve IPRs but rather the question of whether it was an abuse for a press undertaking with a large, but not dominant share of the daily newspaper market and which operated the only home delivery service, to deny a rival publisher access to its nation-wide home delivery service for which it held a monopoly.

In *IMS Health,* the ECJ appears to have narrowed any requirement of leveraging into a second downstream market by holding that the German court need only determine whether IMS' copyrighted "brick" structure was indispensable to providing services on a related market, the supply of German regional sales data.[58] In reaching this conclusion the ECJ stated that it was sufficient "that a potential market or even a hypothetical market can be identified" noting that such would be the case where "the products or services are indispensable in order to carry on a particular business and where there is an actual demand for them on the part of undertakings which seek to carry on the business for which they are indispensable.[59] The Court, as it had done in *Oscar Bronner,* then abandoned any requirement that there be an upstream product market by stating that the decisive factor was whether two different stages of production could be identified and whether they were interconnected in that the first upstream product is indispensable for the supply of the second downstream product.[60]

As in *Bronner*, this analysis would appear to fall short of requiring that the first upstream product actually constitute a "market" and to that extent would appear to eliminate leveraging as a precondition to the finding of an abuse. Rather, as in *Bronner*, the Court reduced the inquiry to whether the IPR is an indispensable input. This approach eliminates any leveraging requirement and, if it stood alone, would lead to the grant of a compulsory license whenever a potential infringer requires access to the dominant firm's IP right in order to compete with the dominant firm in the market in which its IP right is exploited.

In contrast to *Bronner,* the ECJ avoided this extreme result through retention of the *Magill* requirement that there will be an obligation to license only where the plaintiff seeks to introduce a new product which is not being offered by the owner of the IP right. According to the Court in *IMS*:

[57] *Supra* n. 21.

[58] Case C-418/01 *IMS Health v. Commission*, *supra* n. 48, at para. 47.

[59] *Id.* at para. 44.

[60] *Id.* at para. 45.

> "the refusal by an undertaking in a dominant position to allow access to a product protected by an intellectual property right where that product is indispensable for operating on a secondary market may be regarded as abusive *only where the undertaking which requested the license does not intend to limit itself essentially to duplicating the goods or services already offered on the secondary market by the owner of the intellectual property right but intends to produce new goods or services not offered by the owner of the right* (emphasis added) and for which there is potential consumer demand."[61]

As concerns the third condition identified in *Magill*, the ECJ did nothing to clarify what would constitute an "objective justification" in a refusal to license case. Thus, it remains open whether the desire on the part of the IP owner to benefit from the rewards of innovation by exploiting its monopoly rights constitutes objective justification under Article 82 EC.

3. Exceptional circumstances after *IMS Health*

The ECJ's judgment in *IMS Health* provides the most authoritative interpretation of the test enunciated in *Magill*.[62] As such it is something of a mixed bag. On the one hand, as will be discussed below, it appears that the ECJ eliminated any requirement, to the extent one had prior thereto existed in EU law, for two-market leveraging as a precondition for the application of antitrust restraints on IPRs. On the other hand, the ECJ did confirm that the three factors identified in *Magill* are indeed cumulative as opposed to alternative conditions. Similarly, retention of the requirement in *Magill* that the product the would-be licensee seeks to introduce be a novel one that is not offered by the owner of the IPR has the potential to compensate for elimination of the leveraging requirement if this novelty requirement, which embraces the key goal of the IP system, is strictly applied.

The principal difference between the first condition in *Magill* and *IMS* results from the difference in the underlying facts of the two cases and not in the ECJ's formulation of the legal rule. That being said, it is not clear what the impact will be on the outcome of cases. Application of a test turning on the novelty of the infringing product may not be necessary or may be relatively easy to apply where the IP owner is not exploiting its rights in any downstream market. Conversely the "novelty" test could be more problematic where the IP owner is active in the "secondary" market since it requires a comparison. One can only speculate how complex the application of this test will turn out to be.

[61] Case C-418/01 *IMS Health v. Commission* at para. 49.

[62] Since the ECJ's judgment was issued in response to a reference from the German district court, the ECJ was required to provide a definitive statement of EU law as it relates to the circumstances under which a refusal to license may constitute an abuse in order to enable the German district court to apply EU law correctly.

Given the analysis in *Oscar Bronner* and the tendency of the EU Courts to accept dependence as a basis for dominance, it appears that, at least post-*Bronner*, there was no classical leveraging requirement under EU law in refusal to deal cases not involving IPRs.[63] In *IMS* the ECJ appears to have eliminated any leveraging requirement in IP cases. This it did by requiring that there be only two different products one of which is an indispensable input for the other, as opposed to two different markets. The significance of this approach and its arguable departure from *Magill* (but not *Bronner*) derives from the fact that the ECJ appears to have applied a leveraging analysis to a case in which there was no independent supply and demand for the upstream copyrighted brick structure. The replacement of a two "market" test with a two "products" test has the same effect as the Court's reasoning in *Bronner*—it makes the infringer's dependence on the input covered by the IPR the key factor in a manner reminiscent of cases like *ABG Oil* and *Magill* in which dominance has been assumed or found to exist because of customer dependence rather than the dominant firm's market position. Left unchecked, such an approach would substantially increase the scope for the compulsory licensing since all the infringer need prove is that he requires access to the IPR in order to compete with the IP owner.

There appears to be some disagreement as to the status of refusals to license under US law. In his paper for this conference Hew Pate has stated that "With a single much-criticized exception, [the argument that there must be *some* circumstances in which the unilateral, unconditional refusal to license a patent must constitute an antitrust violation] is an argument that has never found support in any US legal decision. At this point in the development of US law, it is safe to say that this argument is without merit."[64] However, this view was not shared by other conference participants, and pre-*Trinko,* other commentators, including Marquardt and Leddy, who propose strict limits on the use of antitrust law to compel the licensing of IPRs. These commentators, appear to accept that there are some circumstances in which the owner of a patent can be required under US antitrust law to grant a license.[65] The following discussion will therefore proceed, *arguendo,* on the assumption that there are limited circumstances in which the refusal to license can violate Section 2 but that this is so only where there is leveraging *i.e.*, where the refusal is linked to the attempt to extend a monopoly from a first market to a second one. If this is a correct summary of US law, it would appear that EU

[63] In *IMS* the "demand" for what the Court referred to as an upstream 'product' which was not marketed independently by IMS Health, existed only because of NDC's desire to use the copyrighted brick structure to produce and market its regional data service. This situation differs from *Volvo* where Volvo supplied body panels to its authorized dealers, and *Magill* where the three broadcast networks did publish their own individual TV guides.

[64] See Hewitt Pate's written contribution for this volume.

[65] See Pitofsky, Patterson and Hooks (2002), *supra* n. 55, at p. 443, and Marquardt and Leddy (2003), *supra* n. 55.

law differs from US law in two respects. On the one hand, EU law is arguably much stricter than US law because it requires that a dominant firm can only be required to grant a license where, *inter alia,* the product being introduced by the infringer is genuinely innovative and is not produced by the dominant firm.[66]

On the other hand, EU law is less stringent than US law in that it does not require what some commentators regard as the principal restraining factor on the unlimited application of the essential facilities doctrine to IPRs in US law—the requirement for market leveraging.[67] This is because, as noted above, the approach adopted in *IMS Health* would appear to eliminate the leveraging requirement by reducing the justification for the grant of a license to the requirement that the IP right—or the product for which it is used or in which it is incorporated—constitute an indispensable input. Such an approach, if unchecked, would effectively erode the monopoly reward that is central to the IP system by permitting a potential infringer to gain a compulsory license whenever this was necessary to compete with the IP owner. And such erosion could negatively impact the incentive to innovate of both IP owners and infringers.

As noted above, the potential adverse consequences of the elimination of the leveraging requirement[68] in *IMS Health* are significantly reduced by the requirement that the rival product for which the IPR constitutes an essential input be a truly novel one that is not produced by the owner of the IPR. The extent to which the novelty requirement will compensate for the elimination of the leveraging requirement will depend on how rigorously the former is applied. Different outcomes are possible: (i) a very stringent novelty condition that would in effect limit the requirement to license to situations in which the licensee would be competing on a market in which the licensor was not itself active thereby in effect reproducing the *Magill* condition; (ii) a stringent condition that would require such substantial innovation that the new product immediately leapfrogs the incumbent product rendering it obsolete; or (iii) a softer standard, of which many shades can be imagined, that merely

[66] This approach is consistent with the approach traditionally taken under intellectual property law which "seeks to resolve the tension between the benefits of competition and the protection of innovation by protecting the innovation from direct imitation while encouraging rival innovations." See Rey P. and Tirole J. (2005): "A Primer on Foreclosure", in Armstrong M. and Porter R., *Handbook of Industrial Organization*, vol. III, Elsevier, New York. The reference to "rival innovations" in the cited passage may not, however, be apposite in the case of *IMS* test given the latter's requirement that the innovative product be one which the IP owner does not itself produce. *Thus,* "further" rather than "rival" innovation may best capture the balancing test aimed at in *IMS Health.*

[67] *See* Marquardt and Leddy (2003), *supra* n. 55.

[68] As a matter of theory, the leveraging approach, because it is based on market extension appears to be an, antitrust doctrine and thus will not always distinguish between the scope of the IPR and activity outside that scope in the way that a prohibition on certain practices (such as forced grant backs of unrelated rights) would. However, the relevance to the latter in a licensing context is not self-evident.

requires only that the 'new' product not be a mere "me too" copy. The reference in *IMS Heath* to "new goods or services not offered by the owner of the right" suggests that the test is likely to be a stringent one envisioned in either (i) or (ii).

To the extent that novelty is a more difficult concept to apply than leveraging, or involves a subjective element, the erosion of IPRs resulting from *IMS Health* may be greater than appears. Conversely, assuming that leveraging is an essential condition for compulsory licensing under US law, it is arguable that the novelty condition in EU law has the potential for imposing a different but potentially more stringent test than US law when determining whether a dominant firm's refusal to license an IPR constitutes an abuse.

Such stringency is needed. The "dominance" threshold for intervention under EU law is much lower, at 40–50%, than the monopolization or attempted monopolization threshold that triggers liability under Section 2 in the US. Moreover, US law has traditionally accorded far greater respect to firms that have earned their strong market positions through the exercise of "superior skill, foresight and industry"[69] than is the case under EU law which frequently seems to be applied to punish success and whose concern with normative concepts such as fairness and the "special obligations" of dominant firms is alien to the US system. Absent sufficient respect for the exercise of superior skill, foresight and industry, there is always a serious risk that the balance struck between IPRs and antitrust law will not the correct one.

C. Concluding Remarks

Notwithstanding the setback it suffered in *IMS Health* and despite the apparent inconsistency of its position with the ECJ's judgments in both *Magill* and *IMS Health,* the Commission continues to take an expansive view of those situations in which the refusal to license may infringe Article 82. Most notably, in its recent *Microsoft* decision,[70] the Commission has taken the position that *Magill* identified three distinct types of exceptional circumstances thereby suggesting that the *Magill* test consists of three distinct abuses rather than a single cumulative set of conditions as established by the ECJ in the *IMS Health* judgment which was issued about a month after the Commission adopted its decision.[71] The Commission, which appears to give

[69] *United States v. Aluminium Co. of America* (Alcoa), 148 F 2d. 416 (2d Cir. 1945), at 429–430

[70] Commission Decision of 24.03.2004 (COMP/C-3/37.792-*Microsoft*); available at http://europa.eu.int/comm/competition.

[71] *Id.* at para. 551. In his order of 26 October 2001, the President of the Court of First Instance had ruled that "[a]lthough the Commission's interpretation [that the conditions in *Magill* are not cumulative] may be correct, the existence of reasonable grounds for concluding that the

equal weight to the cases that do not involve IP rights, has further argued in *Microsoft* that the extraordinary circumstances identified in *Magill* were not exhaustive and that there must be other situations whose particular facts would also render a refusal to license abusive.[72]

Given the facts in *Microsoft*, the Commission could not rely on an argument that Microsoft was not active on the "downstream" market. More complex is the question whether the Commission could have relied on the novelty test articulated in *Magill.* However, the Commission appears not to have considered the possible relevance of the latter requirement. Rather, having based its analysis on the premise (now invalidated by the ECJ in *IMS Health)* that the *Magill* test was not cumulative,[73] the Commission focused on the last two conditions identified in *Magill*—absence of objective justification and leveraging. In this context, the Commission cited *Tiercé Ladbroke*[74] and its identification of an abusive refusal to supply as occurring, *inter alia,* where the dominant firm refuses to supply "... a product or service which was either essential for the exercise of the activity in question in that there was no real or potential substitute, *or* (emphasis added) was a new product whose introduction might be prevented, despite specific, constant and regular potential demand on the part of consumers."[75] By relying on a different, alternative test acknowledged by the CFI but not the ECJ and consisting of only one element—the refusal to provide access to an indispensable input—the Commission committed itself to a line of analysis that we now know is inconsistent with the ECJ's judgments in *Magill* and *IMS Health.*[76]

As concerns the requirement that there be no objective justification for the refusal to license, the Commission rejected Microsoft's argument that protecting the incentive to innovate—the essence of the patent system—constituted an objective justification for its refusal to license. In reaching this conclusion the Commission concluded that "on balance the negative impact of an order to supply on Microsoft's incentives to innovate is outweighed by its positive impact on the level of innovation of the whole industry (including Microsoft)" and that "the need to protect Microsoft's incentives to innovate cannot constitute a justification that would offset the exceptional circumstances identified."[77]

exceptional circumstances envisaged by the Court of Justice in *Magill*, and recalled by it in *Bronner*, are concurrent cannot be excluded." (Case T-184/01 R, *supra* n. 48, at para. 104).

[72] *Microsoft* decision, *supra* n. 64, at para. 555.

[73] In support of its position, the Commission cited the CFI's judgment in *Tiercé Ladbroke, supra* note 49, at para. 131, in which the CFI treats the *Magill* conditions as distinct rather than cumulative, a position that would appear clearly unsustainable following the ECJ's ruling in *IMS Health.*

[74] See *Tiercé Ladbroke supra* n. 49.

[75] *Id.* at para. 131.

[76] That the Commission, which must have known that the ECJ's judgment in *IMS Health* was immanent, chose to rely on *Tiercé Ladbroke*, reflects either the confidence it had in the correctness of its analysis or a lack of caution.

[77] *Microsoft* decision, *supra* n. 64 at para. 783.

The Commission's position on the first point appears consistent with neither *Magill* nor *IMS Health* and it will therefore be interesting to see whether the CFI and eventually the ECJ uphold the approach taken in their own precedents or whether they adopt a new test for Microsoft. Similarly, Microsoft's argument that its refusal to license was objectively justified by the incentive to innovation that underlies the grant of the IP monopoly means that this issue will now be litigated for the first time.

VIII

Eleanor M. Fox[*]

Monopolization, Abuse of Dominance, and Refusal to License Intellectual Property to Competitors— Do Antitrust Duties Help or Hurt Competition and Innovation? How Do We Know?

A. Introduction

This essay concerns intellectual property and unilateral refusals to license competitors. Further narrowing the field, it concerns refusals to license under circumstances in which a grant of license is likely to have some pro-competitive, pro-consumer effects. The conundrum is that an antitrust duty to license may also have negative effects; in particular, chilling innovation by the dominant firm on the theory that the antitrust duty (pejoratively called "forced sharing") will decrease the dominant firm's incentives to invest in innovation. In addition to a possible net loss in competition and innovation, an antitrust duty might be shunned on two other grounds: 1) the antitrust rule may be perceived as an undue limitation on freedom to engage in market competition as one chooses, including the freedom of contract, and 2) it may be perceived as an undue limitation on property rights.[1]

We should note at the outset that an antitrust duty to license IP to one's competitors is extremely limited and is the exception rather than the rule. This is commonly the law.[2] For a duty to arise, it must at least be the case that the owner of the intellectual property has monopoly or dominant power in a market, that the "monopolization" of the intellectual property stymies competition in the market, that market forces are not likely to induce licensing because the gains from foreclosing [declining to create] competition exceed the gains available from licensing, and that, absent a duty to license, effective competition cannot break out.

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[1] All four negative potentialities of antitrust duties to deal, even without involvement of intellectual property, are highlighted in the US Supreme Court case, *Verizon Communications Inc. v. Law Offices of Curtis v. Trinko,* 540 US 398 (2004).

[2] See Joined Cases C-241 and 242/91 *Radio Telefis Eirann v. Commission (Magill)* [1995] ECR 743; Case C-418/01 *IMS Health GmbH & Co. OHG v. NDC Health GmbH & Co. KG* [2004] ECR I-0000; *Independent Service Organizations Antitrust Litigation (CSU v. Xerox)*, 203 F.3d 1322 (Fed. Cir. 2000), *cert. denied*, 531 US 1143 (2001); *Intergraph Corp. v. Intel Corp.*, 195 F.3d 1346 (Fed. Cir. 1999).

This essay asks: Limited to this context, do antitrust duties to license help or hurt competition and innovation, and how do we know?

The essay does not explore what is an undue limitation on freedom to exercise contract or property rights. It is well established that these rights are subject to reasonable regulation, and it is assumed that antitrust rules that will probably enhance competition, efficiency, innovation and consumer welfare constitute reasonable regulation.[3]

First, the essay summarizes the legal background. Second, it maps three cases—*Magill*, *IMS* and *Microsoft* (Europe; interoperability aspects), in terms of helping or hurting competition and innovation. Finally, it draws some conclusions and poses questions for research.

B. Background Law

1. European Union law

Several landmark cases have defined the landscape. In Europe, the most recent leading Court of Justice authority is *IMS*, and the other most important current authority is *Microsoft*. In the United States, particular guidance is given by Federal Circuit court cases, several *Microsoft* opinions, and the important Supreme Court refusal-to-deal case (not involving intellectual property), *Trinko*. I revisit some facts of and judicial observations in these cases.

In *IMS*, NDC wished to use IMS's copyrighted geographic format for collecting data on sales of individual pharmaceutical products, and it planned to sell the data it collected to the pharmaceutical companies in competition with IMS. Replying to a question by a German court, the Court of Justice declared that the exercise of an exclusive right is not normally an abuse of dominance but may constitute an abuse of dominance in exceptional circumstances. First, to constitute a violation, access to the product, service or intellectual property must be indispensable to enable the undertaking to carry on business in a market. To find indispensability: it must be determined whether there are products or services which constitute alternative solutions, even if they are less advantageous, and whether there are technical, legal or economic obstacles capable of making it impossible or at least unreasonably difficult for any undertaking seeking to operate in the market to create,

[3] Within the problem area of this essay, courts' reliance on contract and property freedoms seems to reveal political/philosophical leanings that align with a conclusion that a duty to deal would harm competition and innovation, rather than to reveal whether competition and innovation are in fact harmed in a particular case.

possibly in cooperation with other operators, the alternative products or services.[4]

> "[A] dependency by users . . . , particularly at a technical level," must be taken into account in determining indispensability.[5]
>
> If access is indispensable, three additional factors "are sufficient" to trigger a violation based on refusal to license; "namely, [1] that that refusal is preventing the emergence of a new product for which there is a potential consumers demand, [2] that it is unjustified and [3, that it is] such as to exclude any competition on a secondary market."[6] The secondary product or service need not be marketed separately from the product/service to which access is sought. "[I]t is sufficient that a potential market or even hypothetical market can be identified."[7]

In the shadow of *IMS*, the European Commission decided *Microsoft*.[8] The European *Microsoft* case is much more complex than *IMS*. The European Commission determined that Microsoft illegally leveraged its dominant position in the PC operating system market into the workgroup server software market[9] by refusing to give workgroup server software rivals full interface information so that they could interoperate seamlessly with Microsoft's Windows and Microsoft's workgroup servers. The interface information included intellectual property. The Commission noted that Microsoft had supplied full interface information to workgroup server software providers before it commercialized its own workgroup server software, but thereafter it "disrupt[ed its] previous levels of interoperability," giving only some of the interface information to the users who were now also rivals. The Commission found also that Microsoft designed its system so that rivals' product could not call up all of the functions on Microsoft's operating system, and so that Microsoft's own server software could access Microsoft OS functions more quickly than could rivals'.

In various passages, the Commission made findings of how Microsoft's only-partial disclosures of interfaces harmed competition and innovation. For example:

> 589 Microsoft's refusal puts Microsoft's competitors at a strong competitive disadvantage in the work group server operating system market, to an extent where there is a risk of elimination of competition.

[4] *IMS*, para. 28.

[5] *Idem*, para. 29.

[6] *Idem*, para. 38.

[7] *Idem*, para. 43–44. The Court continued:

"Transposed to the facts of the case in the main proceedings, that approach prompts consideration as to whether the 1860 brick structure [the geographic format for the data] constitutes, upstream, an indispensable factor in the downstream supply of German regional sales data for pharmaceutical products." Para. 46.

[8] Case Comp/C-3/37.792, Commission decision of 24.03.2004.

[9] Workgroup servers connect all desktop computers within an enterprise so that fellow workers can share applications, data, files, etc.

> 694 Due to the lack of interoperability that competing work group server operating system products can achieve with the Windows domain architecture, an increasing number of consumers are locked into a homogeneous Windows solution at the level of work group server operating systems. This impairs the ability of such customers to benefit from innovative work group server operating system features brought to the market by Microsoft' competitors. In addition, this limits the prospect for such competitors to successfully market their innovation and thereby discourages them from developing new products.
>
> 695 If Microsoft's competitors had access to the interoperability information that Microsoft refuses to supply, they could use the disclosures to make the advanced features of their own products available in the framework of the web of interoperability relationships that underpin the Windows domain architecture.
>
> 782 Microsoft's refusal to supply has the consequence of stifling innovation in the impacted market and of diminishing consumers' choices by locking them into a homogeneous Microsoft solution. . . .
>
> 783 The major objective justification put forward by Microsoft relates to Microsoft's intellectual property over Windows. However, a detailed examination of the scope of the disclosure at stake leads to the conclusion that, on balance, the possible negative impact of an order to supply on Microsoft's incentives to innovate is outweighed by its positive impact on the level of innovation of the whole industry (including Microsoft). As such, the need to protect Microsoft's incentives to innovate cannot constitute an objective justification that would offset the exceptional circumstances identified. . . .
>
> 1064 The interoperability information at stake is indispensable for competitors to be able to viably compete in the work group server operating system market.

The Commission's decision requires Microsoft to disclose the full interface information. Microsoft applied for a stay of relief before President Bo Vesterdorf of the Court of First Instance. The order of Judge Vesterdorf, while denying Microsoft's application, recognized that Microsoft had made a number of important points for the Court to consider when it opines on the merits, including whether the purported value of the information allegedly covered by intellectual property rights (which was much more substantial than the IP rights implicated in *IMS* and its predecessor *Magill)*,[10] should have been sufficient to constitute an objective justification for non-disclosure.[11]

The "exceptional circumstances" required by EU law to support a duty to license, and the circumstances constituting an objective justification, thus remain to be clarified.

[10] In *Magill, supra* n. 2, there was no consolidated TV guide in Ireland. Each of the three TV broadcasters in Ireland refused to license their TV schedules (which were protected by Irish copyright law) to Magill, who wished to produce a TV guide. There was consumer demand for a guide. The Court of Justice required the licensing.

[11] Para. 222. The Commission has agreed, pending appeal, not to require Microsoft to reveal its trade secrets embodied in the interface.

2. US law

The American landscape may be defined by two sets of cases. First, in the intellectual property cases, the Federal Circuit Court of Appeals[12] has declared that an intellectual property holder has a nearly absolute right not to license;[13] freedom to refuse to license is the essence of an intellectual property right. Other circuits speak in a somewhat softer tone but still presume no duty to license, declaring that IP rights holders' desire to profit from their IP rights is presumptively a justification for refusing to license.[14]

Secondly, the issue is informed by non-IP refusal to deal cases, and particularly by the Supreme Court's recent case, *Verizon Communications Inc. v. Law Offices of Curtis v. Trinko* (*Trinko*).[15] This is so because refusal to license is a subset of refusals to deal, and, *a fortiori*, if there is no duty to deal without the involvement of intellectual property, there would be no duty to share intellectual property, since exclusivity is an intrinsic characteristic of intellectual property ownership.

The *Trinko* Court's declarations—which may be characterized as strong presumptions against antitrust duties to deal—are germane to this inquiry. Therefore we set forth certain facts and dicta.

In *Trinko* the US Supreme Court held that Verizon, owner of the local loop for a large swath of Northeastern United States, had no antitrust duty to provide its local telephone competitors with full access to the local loop; this, against a backdrop of a regulatory statute that imposed just such a duty. The regulatory statute, however, expressly did not preempt application of the antitrust laws, so the Court was drawn into a full discussion of what antitrust law requires even in the absence of a regulatory duty. The Court began by pronouncing a strong principle that firms, even monopoly firms, have no antitrust duty to deal, except in narrowly drawn situations that did not fit the case. The Court linked this strong principle to the importance of not undermining incentives for investment and innovation. The Court declared that unilateral acts of private firms, in contrast to competitors' collaborations, are presumptively pro-competitive; maximizing firms' freedom to act and freedom to use their property as they choose is pro-competitive because it induces private firms to invest and innovate. Courts, on the other hand, are limited in knowledge and capacity; when they interfere and prohibit single firm conduct they are likely to err and damage the marketplace. Highlighting the dangers of court-ordered duties to deal, the Court said:

[12] This court is designated to hear appeals in intellectual property cases.

[13] *Intergraph*, *supra* note 2; *CSU/Xerox*, *supra* note 2.

[14] *Image Technical Services, Inc. v. Eastman Kodak Co.*, 125 F.3d 1195 (9th Cir. 1997), *cert. denied*, 523 US 1094 (1998) (holding that pretextual invocation of IP rights rebuts the presumption of validity).

[15] *Supra* n. 1.

> Firms may acquire monopoly power by establishing an infrastructure that renders them uniquely suited to serve their customers. Compelling such firms to share the source of their advantage is in some tension with the underlying purpose of antitrust law, since it may lessen the incentive . . . to invest in those economically beneficial facilities. Enforced sharing also requires antitrust courts to act as central planners. . . . Moreover, compelling negotiation between competitors may facilitate the supreme evil of antitrust: collusion.[16]

In a final passage, the Court referred to antitrust law as not "ambitious" in the way that regulatory law can be and the US 1996 Telecommunications Act is. Antitrust law is not intended to eliminate monopolies but merely to prevent unlawful acts. It does not require "a monopolist [to] alter its way of doing business whenever some other approach might yield greater competition."[17] US antitrust law is not an affirmative command to compel firms to use their assets to increase competition.

Despite this strong language in *Trinko*, the Court did not presume to overrule antitrust law running in the other direction. When reflecting on the "narrow" exceptions to the right-not-to-deal principle, the Court invoked the *Aspen Skiing* case[18]—the principal authority relied on by plaintiffs to support the monopolist's duty. The Court distinguished Aspen Skiing's conduct from Verizon's conduct on grounds, among others, that the Aspen Skiing Company had engaged in a past course of dealing with its competitor Highlands in offering a four-mountain ticket for skiers at Aspen, Colorado, and that the four-mountain ticket was presumably profitable or Aspen Skiing would not have embraced it. Terminating this arrangement therefore (said the Court) gave rise to an inference that Aspen Skiing was sacrificing the profits that flowed from a pro-competitive relationship and it must have done so (the Court inferred) for an anticompetitive end.[19] (We refer to this point below when we note that Microsoft engaged in a practice of providing full interface information when it was not a provider of workgroup server software, and subsequently terminated this arrangement.)

The US *Microsoft* cases, while not refusal-to-license cases, significantly reflect on the antitrust/IP interface. I draw here from three opinions of the Court of Appeals for the District of Columbia. In the first US *Microsoft* opinion that I cite,[20] the DC Circuit Court of Appeals expressed the importance of giving firms, even dominant firms, wide range to make product changes ("innovation") without interference from antitrust law, despite exclusionary aspects. "[T]he limited competence of courts to evaluate high-

[16] 540 US at 407.

[17] *Id.* at 415-16.

[18] *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 US 585 (1985).

[19] *Trinko*, *supra* n. 1; Fox E. (2005): "Is There Life in *Aspen* After *Trinko*?—The Silent Revolution of Section 2 of the Sherman Act", 73 *ABA Antitrust Law Journal* 153.

[20] *United States v. Microsoft Corp.*, 147 F.3d 935 (D.C. Cir. 1998) (contempt case alleging Microsoft violated a 1995 consent decree).

tech product designs and the high cost of error should make them wary of second-guessing the claimed benefits of a particular design decision."[21] The following DC Circuit *Microsoft* opinion[22] elaborated on the same theme, holding that Microsoft's deliberate reconfiguration of Java language to frustrate Java's cross-platform potential (a potential that threatened to destroy the monopoly power of Microsoft's operating system) did not constitute a Sherman Act violation because the Microsoft-tailored Java had the positive quality of running more swiftly.[23] Therefore it was innovation, not predation. The third and last DC Circuit *Microsoft* opinion[24] addressed the objections of Massachusetts to the settlement agreement proposed by Microsoft and the US Government in the big monopoly case by the Federal Government, 19 states, and the District of Columbia. Massachusetts argued that the remedies in the proposed decree were so weak that the decree was not in the public interest. Among other things, Massachusetts argued that Microsoft should be required to remove certain software code and to make more extensive disclosures of applications programming interfaces (APIs). The court rejected Massachusetts' appeal, stating not only that courts should not involve themselves in redesigning products but that broader disclosure requirements would be perverse; they would enable rivals to clone Microsoft software products.

> The effect upon Microsoft's incentive to innovate would be substantial; not even the broad remedial discretion enjoyed by the district court extends to the adoption of provisions so likely to harm consumers.[25]

The cases reviewed above are a small but important sampling. They raise a set of questions: Despite the apparent confidence of certain jurists, how do we know whether Microsoft's obligation to disclose complete interface information will help or hurt innovation and consumers? How do we know whether a duty of Microsoft to disclose more APIs, or to carry cross-platform Java, would help or hurt? Can we be confident that duties in *Magill* and *IMS* will not hurt innovation? What criteria can we identify that support or undercut conclusions that duties to license help or hurt competition and innovation? What are the appropriate default presumptions? Might jurisdictions agree to default presumptions? At what point does the law draw the line as if to say: We don't care if consumers would be better off if producers had a duty to deal; it is not the role of antitrust to engineer the marketplace?[26]

[21] *Idem* at 950, n. 13.

[22] 253 F.3d 34 (D.C. Cir.), cert. denied, 534 US 952 (2001) (affirming in part and reversing in part the decision of the district court on the merits).

[23] *Idem* at 74–75.

[24] *Massachusetts v. Microsoft Corp.*, 373 F.3d 1199 (D.C. Cir. 2004).

[25] *Idem* at 1219.

[26] Compare Mavroidis P. and Neven D. (2005): "*Bronner* Kebab: Beyond Refusal to Deal and Duty to Cooperate", in Ehlermann C.-D. and Atanasiu I., eds., *European Competition Law 2003: What Is an Abuse of A Dominant Position?*, Hart Publishing Oxford, London, at pp. 355–369,

III. Mapping cases

I map several cases below. I do so to tease out certain potentially critical questions. My answers, which are necessarily arbitrary, are not important. I want to suggest that the questions are or might be important; they are part of the mosaic of the set of cases addressed; they should be unbundled and their materiality considered.

On a scale of 1 to 10, with 10 being "very important":

a. *How important to competition and innovation is access by outsiders to the dominant firm's IP?*

Magill	4	The loss to consumers from no duty to deal is: inconvenience of not having access to consolidated TV schedules until 24 hours in advance on weekdays, 48 hours on weekends.
IMS	3	The loss from no duty is: Pharmaceutical companies lose an alternative provider; the alternative provider offered a new, flexible web-based system; but the beneficiaries could have contracted to make the format non-exclusive to IMS.
Microsoft	10	(Interoperability issue) The loss from no duty is: Competing sources of innovation are seriously handicapped.

b. *How important to dominant firms' incentives to innovate is freedom to choose not to license?*

Magill	0	The schedules were a by-product of the broadcasting firms' business.
IMS	close to 0	
Microsoft	4 to 5	Microsoft argues: 10. Commission suggests: not insignificant.

c. *Will a duty-to-license regime probably produce a net gain in innovation?*

Magill	modest
IMS	modest
Microsoft	very significant (Microsoft disputes this judgment)

demonstrating that an antitrust duty of Mediaprint to make its newspaper distribution system available to Oscar Bronner would have increased efficiency. The Court of Justice determined that Mediaprint was not required to give Bronner access to its distribution system, in what is generally accepted as an appropriate disposition. Case C-7/97 *Oscar Bronner v. Mediaprint* [1998] ECR I-7791.

4. Will a duty-to-license regime probably produce a net gain in consumer welfare (price/choice)?

Magill	yes
IMS	yes, but modest
Microsoft	yes; but innovation gains are much more significant than static price savings
Compare	
Aspen	yes, skiers get to ski 4 mountains
Bronner[27]	yes, newspaper readers get much better access

e. How much creativity went/will go into the product to which access is sought?

Magill	0
IMS	close to 0
Microsoft	disputed. Microsoft argues: 10. Commission argues—this is "mere" interface information.

f. Is the essence of the case mere failure to license IP ("I want your IP because I want to exploit it commercially too") or is the essence of the case an independently-stated exclusionary practice with IP incidentally involved in the cross-fire?

Magill	providing a new product is the essence
IMS	question whether providing a new product is the essence
Microsoft	IP is not of the essence; just caught in the cross-fire
Compare	
Eastman Kodak	independent service operators just wanted to offer repair services; IP in repair parts was just caught in the cross-fire
South African AIDS drug case[28]	quintessentially, getting the IP is the essence

g How did the court/commission determine whether imposing the duty produced net loss or gain in innovation, consumer welfare?

Magill	net gain was obvious
IMS	assumes net gain if court/commission finds "new product"

[27] See *supra* n. 26. Note that small newspapers' barrier to an effective distribution system is not insurmountable, whereas total exclusivity of IP needed for interoperability in a network industry is likely to constitute an insuperable barrier.

[28] Fox E. and Janow M. (2005): "Antitrust and Intellectual Property: Duties to License, Parallel Imports, and the Question of Differential Treatment for Developing Countries", *NYU/Columbia Workshop Report*, Post-Fordham International Competition Policy Conference (Oct. 9, 2004).

Microsoft	European Commission examined past innovation under earlier conditions of supplying full interface information; surveys, consumer statements; Commission inferred harm to innovation from blockage; inferred harm to Microsoft's innovation from a duty to deal; concluded that withholding interface information causes net harm. [But what part of this conclusion was based on the evidence; what part on default presumptions?]
Microsoft	(D.C. Circuit) strong presumption of net harm from antitrust duty to deal [Based on what?]
Compare	
Trinko	Court assumes as a general proposition that an antitrust duty would chill investment and innovation.[29]

D. Conclusion

This paper has staked out limited ground: The market is monopolized; the dominant firm's complete exclusivity of IP rights frustrates competition and consumer welfare and undermines outsiders' incentives to innovate; but imposing a duty to license is likely to have counter effects of undermining the dominant firm's incentives to innovate (except in cases of by-product IP as in *Magill*). The principal question the author wishes to pose is: How can we tell (or predict with some confidence) whether a refusal to license has a significant net negative effect on innovation, and whether an antitrust duty will have a significant net positive effect?

Second, in view of the absence of empirical information, presumptions have obviously been important to the jurists confronted with these questions. What, in fact has been the role of default presumptions? The default presumptions employed in the cases are virtually never articulated, and they seem to be quite different in Europe and the United States. As a starting measure to tackle the problem addressed in this paper, we could at least seek transparency as to what presumptions courts or agencies use. Second, we could seek to identify where there is room for convergence. For example, might nations agree to the proposition that, in network industries such as computing and telecommunications, interoperability generally serves the interests of innovation, competition and consumers? I suspect that jurisdic-

[29] Note that the Court could have inferred consumer harm, including innovation harm, from the adjudicated fact that Verizon degraded its local service competitors' access to the local loop; but it did not.

tions will agree to disagree, for the proposition implies interventionism that some jurisdictions (e.g. the United States) are unlikely to accept; but this itself will be revealing. Are there other relevant propositions on which convergence might usefully be sought or identified?

Third, a few legal conclusions can be drawn or observed. First, unilateral antitrust duties to deal are exceptional. Second, "raw" duties to license are particularly disfavored. This means that, if GenericCo simply wants GlaxoSmithKline's IP underlying its AIDS drugs because it can make and sell them more cheaply, GlaxoSmithKline can just say "No." In most nations in the developed world,[30] antitrust law imposes no duty in such a case. But normally the facts lack this Doric simplicity.

In the event of more complex facts, four sets of factors may tip the balance. 1) characterization, 2) intent of the dominant firm in refusing access, and centrality of the IP, 3) functional integration of the rights holder and its accompanying opportunity to use leverage to disadvantage rivals, and 4) creativity value of the IP.

First, semantics and characterization, however subjective, may be critical to the legal treatment. Is the problem one of exclusionary strategies, or is the conduct a mere decision to keep one's intellectual property for one's self? I.e., did the IP owner actively harm competition, or did it merely refuse to do good?[31] Consider, for example, the problem in *Trinko*. Did Verizon, owner of the local loop, just say "No," or did Verizon, newly faced with competition in the local market and knowing that a local service provider's full access to the local loop was necessary for its best performance, purposely degrade the service available to its new rivals so its own customers would not defect? Plaintiffs alleged the latter (and most of their allegations had already been proved before the Federal Communications Commission). The Supreme Court interpreted the allegations to be the former and it dismissed the case on the face of the complaint.[32] This example shows that characterization may be used instrumentally. The inquiry, however, can be deontological and not instrumental.

[30] Other considerations may be taken into account in developing countries. Consider the situation in South Africa, Workshop Report, *supra* n. 28. Even in the US, a duty may be created by statute in exceptional cases, as it was in the context of the anthrax scare and the need for the drug Cipro. *Idem*.

[31] Compare, in torts, the good Samaritan doctrine, and the difference between non-feasance and mis-feasance. The United States places more weight on the distinction between positive and negative duties (do no wrong versus do good) than do many European nations. This difference appears in constitutions as well as statutory law.

[32] See *Trinko*, *supra* n. 1. Compare *Gordon v. Microsoft Corp*., 2004–1 CCH Trade Cas. ¶ 74,273 (Minn. D. Ct. 2003) (under Minnesota law, re Microsoft's refusal to disclose APIs to applications programmers: "Plaintiffs contend that the manipulation of technical information about APIs was an integral part of a general scheme that Microsoft employed to gain control of the applications market." Therefore, said the court, Microsoft's motion to exclude evidence could not be granted "even if [it] is correct that nondisclosure of APIs could not on its own support an antitrust violation.") *Idem,* at p. 98, 238.

Second, intent of the dominant firm in refusing access and centrality of the IP to the product/standard/portal rivals seek. This inquiry relates to the first. Did the dominant firm say No because it wished to protect its IP rights, or did it assert IP rights as a pretext to restrain competition? Where the IP holder has engaged in a prior course of dealing which it abruptly terminates (implying no objection in principle to diffusing the IP), jurists are more likely to find an antitrust duty. This was the case in US *Kodak/ITS*,[33] in which Kodak facilitated market entry of independent repairers of its machines, but cut off the supply of its repair parts to the independent service operators (ISOs) after the ISOs had shown their mettle and the service and repair market had become lucrative. As it turned out, some repair parts were patented—a point Kodak apparently observed only after it lost its case in the Supreme Court and lost on remand before a jury.[34] This situation may also describe *Microsoft*, which was providing complete interface information to workgroup server software providers before it developed its own suitable workgroup server software, and it changed its pattern of trade and invoked IP rights only after the users became rivals.[35]

Third, functional integration and the opportunity to leverage and squeeze rivals. An antitrust duty is more likely to be found where the rights holder is functionally integrated; in one function it provides a critical input that is or that incorporates IP while in the other market it competes with its buyers. In such a case, the IP holder is not just failing to give aid to its competitors (as the Court characterized the matter in *Trinko*) but is actively handicapping or excluding its rivals, as in *Kodak/ITS*. This scenario, too, fits the European Commission's case in *Microsoft*. It is another iteration of the distinction between a simple refusal to deal and exclusionary strategies.

Fourth, creativity involved in the production of the intellectual property. In *Magill*, no creativity went into the intellectual property and in *IMS* very little did. In most jurisdictions the "intellectual property" in *Magill* and *IMS* would not have been so designated. It has been suggested that insubstantiality of the intellectual property and the lack of inventiveness behind it was a critical factor in the Court of Justice's embrace of a duty to license in *Magill* and *IMS*.[36] Even if it was, the *Magill* and *IMS* judgments leave open the possibility that, where denial of access seriously frustrates innovation, a duty to license might be called for even in the case of substantial IP.

A final point hidden in the cases is where the antitrust law stops even though an affirmative antitrust duty would produce pro-competitive or

[33] *Eastman Kodak Co. v. Image Technical Services, Inc.*, 504 US 451 (1992).

[34] But see *Intergraph*, *supra* n. 2, contra.

[35] *Microsoft*, *supra* n. 8, at para. 1064.

[36] This seems not to have been the case in *Magill*, wherein the Court of First Instance put this factor into the balance but the Court of Justice upheld the duty on other grounds.

innovation gains. I refer to the point in *Trinko*: antitrust law does not compel firms to do all that is pro-competitive.[37]

In summary: How do we know when significant net innovation benefits are likely to result from duties to deal? What evidence is necessary, and what is sufficient, to support such a conclusion? What default presumptions are justified, empirically and theoretically? Typically, these questions have been swept under the rug, and presumptions are buried in factual conclusions. This paper is a call for sunlight.

[37] See also *United States v. Marine Bancorporation, Inc.*, 418 US 602 (1974); and see note 26 supra.

IX

*Josef Drexl**

Abuse of Dominance in Licensing and Refusal to License: A 'More Economic Approach' to Competition by Imitation and to Competition by Substitution

I. The theory of complementarity and refusal to license

> "The fact that intellectual property laws grant exclusive rights of exploitation does not imply that intellectual property rights are immune from competition law intervention."

These are the words of the European Transfer of Technology Guidelines[1] that are intended to implement and guide the application of both the Technology Transfer Block Exemption Regulation (TTBER)[2] and Article 81(3) EC in its direct application by the Commission, national competition authorities and the courts of the Member States. This view expressed by the Commission is also shared by antitrust enforcers in the US, where the Intellectual Property Guidelines[3] make clear that the Antitrust Division of the Department of Justice (DOJ) and the Federal Trade Commission (FTC) apply the same antitrust principles to conduct involving IPRs that they apply to any other form of tangible or intangible property.

Both sets of rules—the European and US ones—deal only with the application of the cartel prohibition—Article 81 EC and Section 1 of the Sherman Act—to licensing agreements. However, since both jurisdictions clearly rely on an economic evaluation of the objectives of the intellectual property law system on the one hand and competition law and policy on the other, there is no reason why, as a matter of principle, right holders should be immunized from the application of Article 82 EC on the abuse of dominance and Section 2 of the Sherman Act on monopolization when they refuse to license.

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[1] Para. 7 of the Commission's *Guidelines on the application of Article 81 of the EC Treaty to technology transfer agreements*, OJ C 101 [2004].

[2] *Commission Regulation (EC) No. 772l2004 of 27 April 2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements*, OJ L 123 [2004].

[3] See Section 2.1. of the *Antitrust Guidelines for Licensing of Intellectual Property* of 6 April 1995, available at http://www.usdoj.gov/atr/public/Guidelines/ipguide.htm .

The law on licensing in the US and the EU is based on a concept of complementary goals of the IP system and competition law. According to this view, expressed in both the US and EU Guidelines, there is no inherent conflict between IPRs and competition. The right holder is enabled to prevent competitors from exploiting the very subject matter of protection but may not prohibit the development and use of competing, and perhaps superior, technology. Therefore, it may be said that IPRs only exclude competition by imitation but further competition by substitution.[4] The very objective of a functioning IP system is the promotion of innovation without legal protection of economic monopolies. A patent right holder may hold a market-dominant position, but only so long as no competitor comes up with new technology that can 'substitute' for the product protected by that patent. The IP system thus contributes to dynamic competition. Application of competition law, in this context, has to guarantee that the exercise of the intellectual property right does not harm, in particular, competition by substitution.

What are the consequences of this concept of the complementary goals of the IP system and competition law when it comes to the application of competition law to cases involving a refusal to license? In its *IMS Health* judgment of 2004,[5] the ECJ took the opportunity to clarify its view on the application of Article 82 EC to such cases. The following analysis will briefly look at whether the approach adopted by the ECJ is convincing in the light of the concept of complementarity (*infra* B). However, even after the coming into force of Regulation 1/2003,[6] Article 82 EC is not the law throughout the EU. According to Article 3(2) of Regulation 1/2003, Member States are not precluded from adopting and applying stricter national rules which prohibit and sanction unilateral conduct. This article will thus also analyze recent decisions by some national courts regarding refusal to license situations (C). This analysis is of the utmost importance, given the fact that the Commission is currently about to draft Guidelines on the application of Article 82 EC.[7] Therefore, the article will conclude with a few ideas on how refusal to license cases should be handled under Article 82 EC in the future (D).

[4] This distinction between competition by imitation and competition by substitution is best described by Ullrich (1997), pp. 1250–1252.

[5] Case C-418/01 *IMS Health* [2004] ECR I-5039.

[6] *Council Regulation (EC) No. 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty*; OJ L 1 [2003].

[7] On the issues to be solved, see generally Eilmansberger (2005).

II. Article 82 EC, the ECJ in *IMS Health* and Competition by Substitution

Application of competition laws to cases of refusal to license is a highly disputed and not very well settled field of competition law. The *IMS Health* judgment,[8] which defines the current view of the ECJ, was welcomed by some[9] and criticized by others.[10] It is not the place here to review all the arguments made. The following analysis will rather highlight the elements of the ECJ's approach and evaluate them in the light of the theory of complementarity.

1. "Cumulative conditions approach"

Since the *Volvo* decision in 1988, it has been settled case law that the refusal to grant a licence cannot in itself constitute an abuse of a dominant position.[11] Starting from this observation,[12] the Court in *IMS Health* further develops the idea expressed in earlier decisions[13] that, in 'exceptional circumstances', the exercise of the exclusive right may involve abusive conduct.[14] The earlier *Magill* case, in which the ECJ held that such circumstances are present in a situation in which a refusal to license prevents the emergence of a new product,[15] triggered a discussion as to whether such prevention of the emergence of a new product has to be seen as a mere example of exceptional circumstances, i.e., that it did not exclude other scenarios, or whether such prevention is a mandatory requirement for the application of Article 82 EC to a refusal to license (the so-called 'cumulative' interpretation). In the *IMS Health* case, the Court took the opportunity to clarify its position in the sense of a 'cumulative conditions approach'.

According to the Court in *IMS Health*, refused by an undertaking which owns a copyright to give access to a product or service indispensable for carrying on a particular business to be treated as abusive, it is sufficient that three cumulative conditions be satisfied", namely,

[8] *Supra* n. 5.

[9] See, e.g., Derclaye (2004); Eilmansberger (2005), 155–166; Höppner (2005); Merdzo (2005).

[10] See, e.g., Drexl (2004a); Leistner (2005); Thyri (2005). Some authors agree on some points and disagree on others. See, e.g., Gyselen, 2005.

[11] Case 238/87 *Volvo v. Veng* [1988] ECR 6211, para. 8; affirmed in Joined Cases C-241 and 242/91 P *RTE v. Commission* [1995] ECR I-743, para. 49 (*Magill*).

[12] Case C-418/01 *IMS Health* [2004] ECR I-5039, para. 34.

[13] Case 238/87 *Volvo v. Veng* [1988] ECR 6211, para. 9; Joined Cases C-241 and 242/91 P *RTE v. Commission* [1995] ECR I-743, para. 50 (*Magill*).

[14] Case C-418/01 *IMS Health* [2004] ECR I-5039, para. 35.

[15] Joined Cases C-241 and 242/91 P *RTE v. Commission* [1995] ECR I-743, para. 54 (*Magill*).

(1) that the refusal to license "is preventing the emergence of a new product for which there is a potential consumer demand",
(2) "that it is unjustified" and
(3) that such refusal "excludes competition on a secondary market".[16]

The following analysis will not discuss the leveraging requirement of excluding competition on a secondary market in detail.[17] From the perspective of the above-mentioned theory of complementarity, it seems more important to look at the justification for limiting control of refusal to license to scenarios in which the right holder prevents the emergence of a new product (i.e., the cumulative approach).

The Court only devotes two paragraphs to the justification of the cumulative approach and the 'new product' rule:[18]

> The condition regarding the prevention of the emergence of a new product "relates to the consideration that, in the *balancing of the interest in protection of the intellectual property right and the economic freedom of its owner against the interest in protection of free competition*, the latter can prevail only where refusal to grant a licence prevents the development of the secondary market to the detriment of consumers."[19]
>
> "Therefore, the refusal by an undertaking in a dominant position to allow access to a product protected by an intellectual property right, where that product is indispensable for operating on a secondary market, may be regarded as *abusive only* where the undertaking which requested the license does not intend to limit itself essentially to duplicating the goods or services already offered on the secondary market by the owner of the intellectual property right, but *intends to produce new goods or services not offered by the owner of the right* and for which there is a potential consumer demand."[20]

In the light of these statements, two issues can be distinguished when it comes to reviewing the *IMS Health* judgment in the light of the theory of complementarity: (1) the freedom of the right holder to license and the need to balance this freedom with the interest in protecting competition; and (2) recognition of the prevention of a new product as a cumulative requirement.

[16] Case C-418/01 *IMS Health* [2004] ECR I-5039, para. 38.

[17] The Court justified the existence of two separate markets in the *IMS Health* case by accepting a hypothetical upstream market for the subject matter protected by the relevant intellectual property right. See Case C-418/01 *IMS Health* [2004] ECR I-5039, paras. 44-47. However, the Court left it to the referring domestic court to decide whether the refusal to license was capable of excluding competition on the secondary market for the supply of regional sales data on pharmaceutical products.

[18] C-418/01 *IMS Health* [2004] ECR I-5039, paras. 48 *et seq.*

[19] Emphasis added by the author.

[20] Emphasis added by the author.

2. Balancing the freedom to license with competition

The need for balancing the right holder's freedom to license with the interest in protecting competition collides with the idea of complementary goals of the IP system and competition law.[21] If, in a given situation, the IP right really functioned in the expected way of promoting dynamic competition, i.e., enhancing innovation through exclusion of imitation, there would be no need to worry about competition. If, on the contrary, refusal to license in a given situation distorted dynamic competition, sticking to the principle of freedom to license would contravene the very objectives of the grant of the IP right itself.

Accepting a notion of freedom to license in all situations therefore alludes to an inherency doctrine that immunizes the IP right from competition law intervention within the scope of protection of the right. However, it is true that the ECJ limits the inherency doctrine by allowing intervention under the new product rule. Still, freedom to license remains the fundamental rule from which the analysis proceeds.

The problem with such a rule arises from its overall legal approach, which gives no weight to the economic situation of the individual case. The underlying assumption that the IP right contributes to dynamic competition is not confirmed by economic reality in two different situations:

(a) *Inherent regulatory failures of the IP system.* Legislatures or registration offices may draw the scope of protection so broadly that the IP right not only excludes competition by imitation but also by substitution. In the Magill case, where the ECJ for the first time affirmed a duty to license based on ex-Article 86 (now Article 82), some commentators argued that it was wrong to grant a copyright for the listings of TV programmes in the first place. Actually, such protection not only protects subject matter that does not deserve copyright protection. It also leads to the control of ideas, thereby automatically excluding competition in the market of printed TV programmes.

In such situations, the IP system grants protection despite the fact that it is foreseeable that substitution will not be possible because of the foreclosing effect of the IP right on the market. Such a situation is now being discussed in the context of the Commission's proposal to prohibit Member States from granting design protection for replacement parts.[22] The Commission considers that the proposal would promote competition

[21] See also Thyri (2005), 394 *et seq.*, criticizing the Court for granting special treatment to IPRs under Article 82 EC, but for reasons different than those explained here.

[22] *Proposal of 14 September 2004 for a Directive of the European Parliament and the Council Amending Directive 98/71/EC on the Legal Protection of Designs*, COM(2004) 582 final, at http://europa.eu.int/eur-lex/en/com/pdf/2004/com2004_0582en01.pdf .

in particular in the automotive industry.[23] Recently, the ECJ has rejected attempts to have trade marks registered for colours, arguing that such rights, given the limited range of colours consumers are able to distinguish, would create market entry barriers in contradiction to the role of the trade mark system of promoting competition between undertakings.[24] Product patents for a DNA sequence that do not limit the claims to its functions could similarly foreclose access of competitors to biotechnology markets.[25] Patent protection for incremental innovation in the software industry might be discussed as another example of a market-foreclosing administration of the IP system.

(b) *External market failures*. However, even if the lawmakers and the bodies applying IP law take into consideration the interest in protecting competition, a given IP right that usually would not affect competition by substitution does so because of the specific market circumstances that lie outside the IP system.[26] Such market failures can be detected in standardization cases or in situations in which lock-in and network effects are present. Regrettably, the ECJ did not consider whether in IMS Health there was a problem with such external market failures. Of course, there is no doubt about the presence of network effects as the cause of Microsoft's market-dominant position in the market for operating systems.[27] This article is not intended to offer an analysis of the Microsoft decision of the Commission forcing Microsoft to provide interoperability information to undertakings offering competing application software.[28] Nevertheless, it is clear that the ideas developed here are also relevant for the Microsoft case.

It is true that competition authorities and courts have to respect IP rights in principle. However, as we can see, the principle of freedom to license is treacherous. The IP system has its weaknesses. IP rights do not necessarily promote dynamic competition. Industries may try to influence the legislature and registration offices with the objective of excluding

[23] See Drexl, Hilty and Kur (2005), supporting the proposal on the basis of, *inter alia,* arguments of competition policy.

[24] See, e.g., Case C-104/01 *Libertel* [2003] ECR I-3793, para. 54 (limiting considerably the registration for colours as trade marks). See also Case C-136/02 *Mag Instrument Inc. v. HABM* [2004] ECR I-9165 (on the requirement of distinctiveness in cases of registration of the three-dimensional design of a product as a trade mark).

[25] In implementing *Directive 98/44/EC of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions*, OJ L 213 [1998], the German legislature made sure that product patents for DNA sequences would only be given for specific functions. Article 9 of the Directive, defining the scope of product patents for material containing genetic information, alludes to its functions but is not sufficiently clear about the freedom of national legislatures to limit patentability to these functions.

[26] The cases decided by national courts discussed *infra* in Section C illustrate this scenario.

[27] See, e.g., Heinemann (2005a), 67; Thyri (2005), 395–397.

[28] Case COMP/C-3/37.792—*Microsoft.* The Commission's decision is available at http://europa.eu.int/comm/competition/antitrust/cases/decisions/37792/en.pdf .

competition by broadening the scope of IP rights. In the first scenario, the question is really whether competition law is the most adequate instrument to repair failures of the IP system. Article 82 EC only prohibits the abuse of market dominance, whereas it is these failures of the IP system all by themselves that cause market dominance. In such circumstances, Article 82 EC is too weak to reach satisfactory results. Competition policy would do better to intervene at the early stage of drafting IP laws and the administration of the IP system by registration offices and courts.[29] It is worth noting, as the above-cited examples show, that there are intensive IP discussions now underway regarding problems belonging to the first scenario. Although the IP system quite often—but not necessarily—reaches satisfactory results, these problems are usually not discussed from a competition policy point of view.

The second scenario, in contrast, is the classical field of competition law application. In certain 'exceptional' cases that may not be foreseen by the IP legislature and registration offices, control of a refusal to license is necessary under Article 82 EC so as to guarantee that in such situations formalistic recognition of the IP right does not hamper competition.

To sum up so far: the balancing approach adopted by the ECJ in *IMS Health* is not convincing in the light of a legal system in which IP protection pursues the objective of promoting innovation and dynamic competition. For the application of Article 82 EC, the question remains whether the 'new product' approach adequately distinguishes cases in which the IP right promotes dynamic competition from those in which it does not.

3. The 'new product' rule of the ECJ

At first glance, the new product rule of the ECJ, requiring the prevention of the emergence of a new product in the same market as a necessary condition for a duty to license based on Article 82 EC, seems to illustrate the distinction between competition by imitation and competition by substitution. The decision could be interpreted in the following sense: the competitor who simply intends to imitate the achievements of the right holder does not deserve protection by Article 82 EC, in contrast to a competitor who would be prevented from placing a new product on the market without the grant of the licence. Therefore, even from the perspective of economic theory, the ECJ seems to define the 'balance' between IP protection and competition policy correctly. The prevention of the sale of an identical product is covered by the specific object of the IP right, whereas the prevention of a new product is not.

[29] For a similar conclusion, see Heinemann (2004), 122.

Intervention under Article 82 EC may only be justified in cases of a restriction of competition by substitution, but not in cases of a restriction of mere competition by imitation.[30]

However, this explanation is not completely satisfying. The ECJ's theory, at least in the interpretation that was just outlined, presumes that, with the licence, the petitioner will be able to place a new product on the market. This is only the case in the first scenario mentioned above,[31] in which the IP system itself is deficient and excludes competition by substitution. This is why, in *Magill*, the ECJ for the first time was able to develop and, more importantly, to successfully apply the new product rule. Copyright protection for the listings of TV programmes of individual broadcasting organizations monopolized the underlying ideas and prevented the efforts of publishing houses wishing to compete by substitution, namely by offering comprehensive listings to consumers. In that specific situation, the copyright system as such turned out to be anticompetitive. However, it is difficult to imagine that the new product rule would work in the second scenario, in which the IP system is not deficient but external circumstances prevent the petitioner from placing a new product on the market. Requiring the petitioner to intend to offer a new product will make no sense if the sale of even a technologically superior 'new' product is no commercially viable option.

It seems that the latter situation was actually present in the *IMS Health* case. The petitioner had for some time tried to offer a competing system for collecting data on the sale of pharmaceutical products, but without success. The pharmaceutical companies and the pharmacies did not want to work with different systems at the same time and rejected the idea of switching to the competitor because of the costs involved. In such a situation, competition by substitution, i.e., a new product, is not prevented by the refusal to grant the licence but by the lock-in effect and possible network effects in the given market. The petitioner's only chance to become active in the same market was to 'imitate' IMS Health's copyright-protected brick structure.

In *IMS Health*, the ECJ was even ready to allow imitating the subject matter of protection (the brick structure) by requiring the petitioner of the licence not to intend to limit itself essentially to duplicating the good and services already offered "on the secondary market", namely the market of the services provided to the pharmaceutical companies.[31a] In doing so, the Court completely missed the innovation rationale of the IP system. Copyright law is designed to promote creativity and not the quality of a service of collecting market data on the sale of pharmaceuticals.

[30] Some commentators supporting the *IMS Health* judgment allude to such an economic rationale. See, e.g., Höppner (2005), 461; Merdzo (2005), 170 *et seq.*

[31] See *supra* 2.

[31a] Case C-418/01 IMS Health [2004] ECR I-5039, para. 49.

We may conclude: the ECJ applied a concept of innovation which fits some cases but not others. The new product rule will only restore competition in situations in which the IP system itself excludes competition by substitution. As was demonstrated in this analysis, application of Article 82 EC in such situations is only the second-best solution. The best solution consists in limiting the IP right to its appropriate scope. In other situations, where the IP system as such is working appropriately but certain market conditions exclude competition by substitution, the new product rule of the ECJ effectively excludes application of Article 82 EC.

In these latter situations, the IP right nevertheless confers a market-dominant position and thereby allows the right holder to exclude competition. Seen in terms of the theory of complementarity, the IP system, although it is well-functioning as such, does not achieve the expected results of dynamic innovation. Therefore, the question arises whether Article 82 EC should also be applied in such circumstances. The answer to this question is all but clear. Such a compulsory licence would not restore competition by substitution but only competition by imitation, and would therefore affect the very substance of the IP right. Still, the question remains whether competition law should not reduce IP protection with the objective of ensuring welfare gains in terms of allocative efficiency by allowing imitation in situations in which welfare gains in terms of dynamic competition by substitution are not possible. Before we turn to this issue,[32] it is worth looking at recent developments in the jurisdictions of certain EU Member States.

C. Duty to License Based on the Competition Laws of the Member States

As indicated above,[33] Regulation 1/2003 allows application of stricter rules on unilateral restraints of competition under the law of the Member States. This is why the *IMS Health* 'cumulative conditions' approach requiring the prevention of the emergence of a new product does not preclude competition authorities and courts in the Member States from granting a compulsory licence based on their domestic rules on abuse of market dominance and similar rules on unilateral restraints of competition even if the requirements for the application of Article 82 EC, according to the standards of *IMS Health*, are not fulfilled.

It is interesting to see that, recently, several courts and competition authorities in the Member States have had to deal with cases of refusal to

[32] *Infra* D.

[33] *Supra* A.

license, and that they have not necessarily stuck to the ECJ's 'cumulative conditions' approach. In the following, two decisions will be discussed in more detail. In both decisions, the French *Cour d'appel de Paris* and the German *Federal Supreme Court* developed concepts of a duty to license without applying the new product rule of the *IMS Health* judgment, and thereby allow competition by imitation.[34]

1. The French *Newspaper Distribution Case*

On 12 January 2004, i.e., three months before the ECJ handed down its *IMS Health* judgment, the *Cour d'appel de Paris*, in *SAEM et NMPP contre le Conseil de la concurrence*,[35] affirmed a decision of the French *Conseil de la concurrence* that had ordered a nation-wide newspaper distributor to grant another nation-wide distributor access to its computer programme ("Presse 2000"), which the *Conseil de la concurrence* considered to be an essential facility for the distribution of newspapers and magazines for the whole of France. The computer programme was used for the exchange of information with local distributors and retailers, who refused to switch to another computer programme that the petitioner might otherwise have been able to establish. The decision is based on the French prohibition of an abuse of market dominance in Article L 420-2 of the *Code du commerce*. The allegation of the plaintiff that the order of the *Conseil de la concurrence* infringed its property right in the programme was rejected by the *Cour d'appel* on the ground that the plaintiff had already allowed access to another nation-wide distributor,[36] and that, as a dominant undertaking, it therefore had to grant access to others as well at equitable and non-discriminatory conditions.

[34] Other interesting decisions are those by the French *Conseil de la concurrence* in *Décision no. 04-D-54 du 9 novembre 2004 relative à des pratiques mises en œuvre par la société Apple Computer, Inc. dans les secteurs du téléchargement de musique sur Internet et des baladeurs numériques,* available at http://www.conseil-concurrence.fr/pdf/avis/04d54.pdf (rejecting a duty to license on the part of Apple regarding the marketing of its iTunes), and by the Italian *Autorità Garante della Concorrenza e del Mercato, Provvedimento n. 14078, 23/02/2005, Merck—principi attivi,* http://www.agcm.it/agcm_ita/DSAP/DSAP_287.NSF/0/a1b82febb04fd9f7c1256fc4005d3547?OpenDocument&ExpandSection=-1000; *Provvedimento n. 1070, 23/02/2005, Glaxo—principi attivi,* http://www.agcm.it/agcm_ita/DSAP/DSAP_287.NSF/0/6bce687da4298de5c1256fc4005d353e?OpenDocument&ExpandSection=-1000 (in both decisions granting a compulsory licence under competition law in favour of an Italian generics producer against the foreign holder of pharmaceutical patents for serving foreign markets in which patent protection had expired).

[35] *Cour d'appel de Paris,* http://www.finances.gouv.fr/DGCCRF/boccrf/04_05/a0050035. htm.

[36] The market for national distribution was basically served by those three undertakings involved in the case. Each distributor distributed individual titles for the whole of France. A better account of the facts is given by the decision of the *Conseil de la concurrence*, *Décision no. 03-MC-04 du 22 décembre 2003 relative à une demande de mesures conservatoires présentée par la société les Messageries Lyonnaises de Presse,* http://www.finances.gouv.fr/DGCCRF/boccrf/04_01/a0010055.htm.

The decision of the *Cour d'appel de Paris* goes beyond the later holding of the ECJ in *IMS Health*. The *Cour d'appel* does not even think of a requirement in the sense of the new product rule of the ECJ, although this requirement had been intensively discussed ever since the *Magill* decision of the ECJ in 1995. Without making any reference to the case law of the ECJ, the *Cour d'appel* develops a French essential facilities doctrine for which the involvement of an IP right does not play a decisive role. In substance, the *Cour d'appel* had to decide on a scenario similar to that in *IMS Health* but applied a different approach and reached a different conclusion. The *Cour d'appel*, in contrast to the ECJ, used the prohibition of abuse of market dominance with the result of allowing competition by imitation despite the involvement of the IP right. Although the *Cour d'appel* had to deal with a discrimination case, and the ECJ did not, it is not that clear that the *Cour d'appel* would have rejected the claim of the petitioner if the dominant undertaking had refused to grant licences in general. On the contrary, the *Cour d'appel* justifies its decision essentially with the characterization of the computer programme as an essential facility and does not accord particular weight to the existence of IP protection for that programme.

The economic validity of the approach by the *Conseil de la concurrence*, as confirmed by the *Cour d'appel*, remains very questionable. Qualifying an IP right as an essential facility does not sufficiently take into account the economics of the given situation. As was explained in the foregoing analysis, authorities and courts should rather investigate whether external market failures exclude competition by substitution. From such an analysis, one might draw the conclusion that the given IP right has to be considered 'essential'. But it is all too obvious that the notion of an 'essential facility' as such is not helpful in formulating a consistent analytical competition law approach in refusal to license scenarios.

Given these weaknesses of the decision, it is no wonder that, on appeal, the French Cour de cassation overturned the annulled decision of the Cour d'Appel.[36a] However, the Cour de cassation did not question the essential facilities doctrine as such but not only the validity of the argument that the computer programme had to be considered "essential" in the specific case. Relating to the appeal decision, the Cour d'Appel in its second and final decision[36b] followed this line, arguing that the petitioner would have actually been able to develop its own computer programme for competing in the same market, and ultimately annulled the decision of the Counseil de la concurrence. Again, in none of the decisions the French court cites the case of

[36a] Decision no. 1159 of the 12 July 2005, Case No. 04-12.388 (Société MMPP coutre Société MPLP et autre), http://www.lexinter.net/JPTXT4/JP2005/facilite_essentielle.htm. The decision has been translated into English twice, see [2006] E.C.C.13; [2006] 37 ITC 239.

[36b] Decision no. 2205/14782 of 31 January 2006, www.conseil-concurrence.fr/doc/ca_nmpp.pdf#search=%222005%zf14782%2031%20janvier%202006%22 (no English translation available so far).

law of the ECJ. In its final decision, the Cour d'appel only stated that a referral to the ECJ would not have been mandated.

2. The German *Standard Tight-Head Drum* decision

Similar at least to the final conclusions of the *Cour d'appel de Paris,* and some weeks after the ECJ had handed down its decision in *IMS Health*, the Federal Supreme Court of Germany, in the so-called *Standard tight-head drum* (*Standard-Spundfass*) decision,[37] affirmed a duty to license a patent. Although the German court knew about *IMS Health* and even briefly cited once to the judgment, it did not even mention the ECJ's new product rule. Actually, in the specific circumstances of the case, it was too obvious that the petitioner had no chance to offer a new product. The defendant had used the plaintiff's European patent for the production of barrels constructed for the transport of certain chemicals. Since the chemical industry in Germany had agreed on a standardization of such barrels according to the technical specifications of the plaintiff's patent, access to the market for such barrels depended on the use of that patent.

The *Standard tight-head drum* decision provides a very illustrative example of the second scenario described above.[38] In a situation of standardization, requiring the petitioner to offer a 'new product' makes no sense. Competition by substitution is excluded because of such standardization. The question then is whether competition law should at least allow competition by imitation.

The German Federal Supreme Court answered in the affirmative. In addition, the court applied a much better economic analysis than the *French courts* did in the *newspaper distribution* case. In its decision, the court expressly recognizes the objective of the IP right of excluding others from imitation so as to incite them to compete by substitution.[39] For the court, the existence of market dominance as a consequence of an IP right does not suffice for a duty to license to arise. However, the right holder may not refuse to grant the licence if "additional circumstances" endanger free competition protected by the Act Against Restraints of Competition (*Gesetz gegen Wettbewerbsbeschränkungen*, or 'GWB').[40] Still balancing the interests of the right holder against the interests in free competition, the court gives specific

[37] Bundesgerichtshof (BGH) of 13 July 2004, (2004) Gewerblicher Rechtsschutz und Urheberrecht 966—*Standard-Spundfass*=(2005) 36 IIc 742—Standard Tight-Head Draw (English translation). See also the comments of Heinemann (2005b); Leistner (2005).

[38] *Supra* B.2.

[39] In making this distinction between these two forms of competition, the court also cites Ullrich (*supra* n. 4); Bundesgerichtshof *Gewerblicher Rechtsschutz und Urheberrecht (*2004) 966, 968.

[40] In referring to such "additional circumstances", the court cites the case law of the ECJ, including *IMS Health*.

weight to the argument of standardization among the customers of such barrels. According to the court, such standardization protects the patent holder and the patented technology from having to face competition from superior technologies. Therefore, the court held that, a refusal to license in such a situation cannot be considered justified.[41]

As with the case decided by the *Cour d'appel de Paris*, the German Federal Supreme Court was dealing with a discrimination case. The patent holder had licensed some, but not all of its competitors.[42] The German court, therefore did not apply the general prohibition of abuse of market dominance in Section 19 of the GWB, but rather relied on Section 20(1), which prohibits any discrimination by a dominant undertaking in the course of trade without reasonable justification. However, the court makes clear that, in principle, a patent holder's duty to license can also be based on Section 19.[43] Considering that the economic reasoning of the court does not specifically rely on the fact that there had been some discrimination among licensees, it is very likely that the German court would also grant such a license in situations in which there is no such discrimination.[44]

It is worth noting that the German Federal Supreme Court took its decision after the entry into force, on 1 May, 2004, of Regulation 1/2003. There was no doubt about the applicability of Community law to the case, since the petitioner for the license was a German subsidiary of an Italian producer whose barrels were excluded from entry into the German market by the patent holder's refusal to license. In addition, the patent holder had asked the court to confirm that future sales by the petitioner would infringe his rights. Therefore, the court was in principle obliged, under the rules of Regulation 1/2003, to apply Article 82 EC. Nevertheless, the court does not even mention Article 82 EC and does not explain why the case was only decided on the basis of German competition law. The most obvious reason for this is that the violation of competition law was pleaded by the defendant with the objective of escaping the allegation of a patent infringement. With regard to this 'competition law' defence, it was appropriate to apply only those competition rules that provided the most protection for the defendant. Whether the German court was aware of the fact that Article 82 EC as

[41] See also Patterson (2002). The author makes the argument that the revenue for the patent holder in a standardization scenario is only partially justified by the innovation protected by the patent. The author concludes that, from a European perspective on standardisation, the patent holder has a duty to grant a license to the standard-setting body.

[42] The industry had only decided in favour of the patent holder's barrel on the condition that the patent holder would license the patent for free to all German competitors that had participated in the bid for getting the standard. Thereby, however, the standard still excluded competition from new entrants, in particular those coming from other EU Member States.

[43] Bundesgerichtshof *Gewerblicher Rechtsschutz und Urheberrecht* (2004) 966, 967—*Standard-Spundfass*.

[44] Leistner (2005) 158, reaches a similar conclusion. In contrast, Heinemann (2005b), 204, relies on the discrimination aspect of the case in concluding that the German court did not question the *IMS Health* test of the ECJ.

interpreted by the ECJ in its *IMS Health* judgment would probably not have justified the defence cannot be concluded from the decision.

Meanwhile, Germany has ammended its competition law with the objective of making the law compatible with recent reforms of European competition law under Regulation 1/2003.[45] Initially, the German government had proposed the adoption of a provision that would have required German competition authorities and courts to apply Section 19 GWB (the German rule on abuse of market dominance) in conformity with the principles of Community law. However, this proposal was rejected by the legislature. Therefore, it may be concluded that authorities and courts may continue to interpret Section 19(1), whose wording follows the example of Article 82, in the sense of stricter standards for unilateral restraints of competition. *Standard tight-head drum* remains valid judicial interpretation even in the context of Section 19 of the newly revised Act.

IV. Future application of Article 82 EC

1. Drafting Guidelines on the application of Article 82 EC

The *IMS Health* judgment creates a difficult situation for the Commission in the process of drafting Guidelines on the application of Article 82 EC.

On the one hand, the purpose of the Guidelines is to extend the 'more economic approach' that has transformed other areas of EC competition law to the application of Article 82 EC. Since it has already implemented the economic approach in the framework of the reform of the TTBER in 2004,[46] the Commission can be expected to apply the same concept of complementary objectives of IP law and competition law in the context of Article 82 EC. On the other hand, the Commission must not disrespect the interpretation of that provision by the ECJ.

In its Guidelines on the Transfer of Technology, the Commission has sufficiently made clear that IP rights and competition law coincide in promoting innovation and dynamic competition by excluding imitation. Therefore, the analysis of the Guidelines on Article 82 EC should also rely on the basic distinction between competition by imitation and competition by substitution.

This distinction leads to the conclusion that the 'cumulative conditions' approach based on the new product rule as developed by the ECJ is only adequate in situations where competition by substitution would be possible in

[45] The amendment to the German law entered into force on 1 July 2005. See *Bundesgesetzblatt* (Federal Official Journal), Part I of 20 July 2005, p. 2115.

[46] In more detail, see Drexl (2004b).

principle but overbroad protection of the IP right prevents competitors from engaging in such competition (i.e., the first scenario—*à la Magill*—mentioned above[47]). In such situations, the application of Article 82 EC allows access to the use of the subject matter of protection. However, a more adequate way to deal with these problems would consist in limiting protection to the appropriate scope within the IP system. In this regard, the application of Article 82 EC is only the second-best solution.

A conflict with the views of the ECJ will obviously arise with regard to situations in which the IP system is tailored adequately but external circumstances, like technical standardization or network effects, exclude competition by substitution (i.e., the second scenario, as seen in *IMS Health*[48]). It is very questionable whether the *IMS Health* holding would allow a departure from the new product rule. Given this unsatisfactory situation, the Commission would be best advised to depart from basic concepts for the application of Article 82 EC and to propose a more consistent test for refusal to license cases.

2. Possible approaches to refusal to license in applying Article 82 EC

As the foregoing analysis of European and national case law demonstrates, there are fundamentally different approaches to the prohibition of abuse of market dominance in refusal to license cases. A fundamental distinction may be made between approaches generally known from the application of Article 82 EC and a specific IP-related approach relying on a theory of the complementary goals of IP and competition law.

As to the first approach, a second distinction has to be made between the application of a leveraging theory and an essential facility doctrine. The ECJ in *IMS Health* simultaneously relies on both of these theories in developing its cumulative approach. As to leveraging, the Court held that the refusal to license must extend market dominance to a secondary market and, under the circumstances, recognized the existence of a proper licensing market. In addition, the ECJ applied a 'restrictive' essential facility theory—without even mentioning this much contested theory—by requiring the prevention of the emergence of a new product. By contrast, the *Cour d'appel de Paris* in its earlier case had explicitly relied on an essential facilities doctrine that did not require such prevention of a new product.

The fundamental fallacy in the reasoning of the ECJ in the *IMS Health* case consists in not taking account of the nowadays broadly accepted concept of the complementary goals of IP rights and competition law. The decision by the German Federal Supreme Court demonstrates that such a theory may also be implemented in the context of provisions on abuse of market

[47] *Supra* B. 2.

[48] *Supra* B. 2.

dominance. The question remains whether, in the light of the 'cumulative' approach in *IMS Health*, there is room for the Commission to propose an approach consistent with the concept of complementarity.

In *IMS Health*, the ECJ emphasized that, only in exceptional circumstances may a right holder be required by Article 82 EC to license the IP right. It is true that the ECJ took a clear stance in favour of the 'cumulative' approach, combining the leveraging theory with the new product rule. However, the ECJ only considered applying a leveraging theory to refusal to license, despite the fact that the concept of leveraging is certainly not the only theory on which Article 82 is applied. As a general clause, Article 82 EC is broad enough to accommodate new theories that prove most adequate to translate economic considerations into a legally viable test. In addition, the Court's reliance on the leveraging theory is not very convincing. From an economic perspective, the issue of whether to accept a separate licensing market or not clearly misses the point of identifying the effects of a refusal to license on competition by imitation and competition by substitution in a given market.

Therefore, the Commission should try to propose a test that both departs from such unsatisfactory theories of leveraging and essential facilities and makes clear that an economic approach to Article 82 EC in IP cases has to rely on the theory of complementarity. It may be hoped that the ECJ accepts such a theory as a more consistent approach to the 'exceptional circumstances' that may justify competition law intervention in refusal to deal cases. It seems that a reading of the *IMS Health* judgment is possible according to which the leveraging theory does not have to be the only and exclusive approach in applying Article 82 EC to refusal to license cases. In *IMS Health*, the ECJ was only explicit on the 'cumulative' approach allowing a leveraging theory to be applied in conjunction with the new product rule. This need not rule out the application of a different, more adequate theory in other circumstances. Perhaps, in its upcoming *Microsoft* judgment, the CFI can be helpful in preparing the ground for such a different approach.

3. Striking the balance between allocative and dynamic efficiency

In the foregoing analysis, the question was raised of whether, in a scenario of external market failures, as in the case of standardization or network effects, where competition by substitution is not possible, intervention by Article 82 should be allowed with the objective of safeguarding at least welfare gains in terms of allocative efficiency.[49]

The issue is a difficult one. Obviously, a duty to license under Article 82 in such situations enables the petitioner to imitate. Such a duty to license would directly affect the specific object of the IP right. However, this is merely an

[49] *Supra* B. 3. at the end.

IP-based perspective. Perhaps it is more appropriate to admit that in such circumstances the IP right does not have the capacity to promote dynamic competition. As the German Federal Supreme Court in its *Standard tight-head drum* decision has correctly stated, recognizing the right holder's freedom to license would result in overbroad protection. The right holder gets the whole market without having to feel the pressure of competition afterwards.

However, even in such situations, the IP system incites innovation (i.e., dynamic competition) so long as the outside effects (external market failures) have not yet materialized. Therefore, it may be said that the IP system still works as long as undertakings compete 'for' markets. Once an undertaking has gained the market, however, competition 'within' the market is excluded. Right holders are then protected in exploiting their monopoly power unless a duty to license under competition law is recognized.

The basic issue from an economic perspective is therefore how to guarantee that the later duty to license does not distort competition 'for' the market. Obviously, competition for markets would be much more fierce if competitors did not have to be afraid of later having to license to competitors. However, in regular markets, nobody argues that the incentives of IP protection are too weak, because the investors in innovation know that they will have to face competition by substitution after having made the innovation. Consequently, there is a good argument for a duty to license in markets where external circumstances exclude substitution.[50]

In addition, due regard should be given to the facts of the case. The argument that a duty to license might hamper investment in initial innovation is usually put forward in a much too general way. In many instances, this fear is not confirmed by the facts. In the *Standard tight-head drum* case, for instance, the patent was granted in the same year that the chemical industry decided on the standard. Hence, when the later patent holder made the decision for the investment in innovation, he could not possibly foresee that he would be saved from competition by substitution as a consequence of the standardization. In any case, the law has to make sure that royalties for the compulsory licence are high enough to create sufficient incentives for the innovation in the first place.[51]

To sum up: from an economic perspective, intervention on the basis of Article 82 EC is justified because the loss of allocative efficiency produced by the exclusion of imitation is not outweighed by gains in dynamic efficiency as a consequence of competition by substitution. From an IP perspective, this kind of intervention does not deny IP protection as such, since the right holder will still receive reasonable remuneration that allows recovery of the initial investment in the innovation.

[50] For additional arguments in favour of competition law interventions in situations where there is only competition 'for' markets, see Heinemann (2004), 127 *et seq.*

[51] For some suggestions on measuring the appropriate level of licence fees in the context of a duty to license, see Lévêque (2004).

E. Conclusions

The theory of complementarity, as recognized in the context of the law on licensing, can also guide the application of Article 82 EC to refusal to license cases. A critical review of the *IMS Health* judgment of the ECJ demonstrates the need for a 'more economic' approach in the field of refusal to license. The cumulative approach developed by the ECJ in *IMS Health*, combining the leveraging theory with the new product rule, is not capable of guiding the application of Article 82 EC appropriately in all circumstances.

Imitation should be allowed under a duty to license based on Article 82 EC in situations where external market failures exclude substitution of the protected subject matter by a new product. The law has to make sure that royalties for such compulsory licences are high enough not to hamper incentives for innovation when undertakings compete 'for' markets in which competition by substitution runs the risk of being excluded later.

In drafting the Guidelines on the application of Article 82 EC, the Commission will have the problem of developing a convincing economic approach to refusal to license that respects the ECJ's holding in *IMS Health*. It may be argued that *IMS Health* did not limit the application of Article 82 EC in refusal to license cases to a leveraging theory. The Commission would be well advised to formulate a different approach to Article 82 EC relying on the effects of the refusal to license on competition by imitation and competition by substitution in a given market.

The analysis shows that, with regard to the prohibition of abuse of market dominance, national competition law will continue to be important despite the entry into force of Regulation 1/2003. In a field in which both economic theory and the law are not well established, legal pluralism can only contribute to improving the law. Therefore, the Commission, the ECJ and academic circles will have to keep an eye on the development of domestic competition law in the Member States.

In the past, Article 82 EC cases involving a duty to license did not arise very frequently. However, the growing importance of the network industries seems to be changing this situation with considerable speed. Perhaps, in the not too distant future, 'exceptional circumstances' in which competition law intervention is justified will no longer be the empirical exception but the daily bread of competition policy. One more reason why lawmakers, registration offices and courts should be aware of the need for keeping the IP system free of inherent failures that necessarily distort competition.[52]

[52] On those inherent failures, see the first scenario *supra* B. 2.

BIBLIOGRAPHY

A. Publications:

Acs Z. and Andretsch D. (1987): "Innovation, Market Structure and Firm Size", 69 *Review of Economics and Statistics* 567.

Aghion P., Bloom N., Blundell R., Griffith R. and Howitt P. (2002): *Competition and Innovation: An Inverted U Relationship*, The Institute for Fiscal Studies, Working Paper 02/04.

Aghion P., Dewatripont M. and Rey P. (1999): "Competition, Financial Discipline and Growth", 66 *Review of Economic Studies* 825.

Aghion P., Dewatripont M. and Rey P. (2000): *Agency Costs, Firm Behaviour and the Nature of Competition*, IDEI Working Paper No. 77.

Aghion P., Harris C., Howitt P. and Vickers J. (2001): "Competition, Imitation and Growth with Step-by-Step Innovation", 68 *Review of Economic Studies* 467.

Alexander W. (1971): *Brevets d'invention et règles de concurrence du Traité*, CEE, Brussels.

Anderman S. (1998): *EC Competition Law and Intellectual Property Rights*, Oxford University Press, Oxford.

Anderman S. (2004): "Does the Microsoft Case Offer a New Paradigm for the 'Exceptional Circumstances' Test and Compulsory Copyright Licenses under EC Competition Law", 1 *The Competition Law Review* 7.

Anderson R. and Rivard B. (1999): "Antitrust Policy Towards EFT Networks: The Canadian Experience in the Interac Case", 67 *Antitrust Law Journal* 389.

Andewelt R. (1985): "Analysis of Patent Pools Under the Antitrust Laws", 57 *Antitrust Law Journal* 611.

Anton J. and Yao D. (1995): "Standard-Setting Consortia, Antitrust and High-Technology Industries", 64 *Antitrust Law Journal* 247.

Antonelli C. (2003): "La politica economica della conoscenza: università, ricerca e diritti della proprietà intellettuale", in Spaziante A., ed., *La conoscenza come bene pubblico comune: software, dati, saperi,* CSI-Piemonte, Torino.

Areeda P. (1974): *Antitrust Analysis*, 2nd edition, Little, Brown & Co., Boston.

Areeda P. (1990): "Essential Facilities: An Epithet in Need of Limiting Principles", 58 *Antitrust Law Journal* 841.

Areeda P. *et al.* (2004): *Antitrust Law,* Aspen, New York.

Arezzo E. (2004): "Competition Policy and IPRs: An Open Debate Over an Ever Green Issue", 3 *Diritto D'Autore* 81.

Arlt C. (2005): "Marktabschottend wirkender Einsatz von DRM-Technik—Eine Untersuchung aus wettbewerbsrechtlichem Blickwinkel", *GRUR Int* 1003.

Arora A., Fosfuri A. and Gambardella A. (2003): " Markets for Technology and Corporate Strategy", in Granstrand O., ed., *Economics, Law, and Intelelctual Property*, Kluwer Academic, Boston.

Arregui I. (2003): "Refusals to Deal Involving Intellectual Property Rights", 34 *Law and Policy in International Business* 832.

Arrow K. (1962): "Economic Welfare and the Allocation of Resources for Invention", in Nelson R., ed., *The Rate and Direction of Inventive Activity: Economic and Social Factors*, Princeton University Press, Princeton, 609-.

Arthur W. B. (1994): *Increasing Returns and Path Dependence in the Economy*, University of Michigan Press, Michigan.

Azcuenaga M. L. (1997): "Antitrust and Intellectual Property: Recent Highlights and Uncertainties", Address Before the American Law Institute-American Bar Association (April 24, 1997), text available at http://www.ftc.gov/ speeches/ azcuenaga/aliaba97.htm.

Bakels R. and Hugenholtz B. (2002): *The Patentability of Computer Programs*, Working Paper for the European Parliament, Directorate-General for Research, Legal Affairs Series, Luxembourg.

Bar-Shalom A. and Cook-Deegan R. (2002): "Patents and Innovation in Cancer Therapeutics: Lessons from *CellPro*", 80 *The Milbank Quarterly* 637.

Bartmann J. (2005): *Grenzen der Monopolisierung durch Urheberrechte am Beispiel von Datenbanken und Computerprogrammen*, Carl Heymanns Verlag, Cologne.

Barton R. (2001): "Antitrust Treatment of Oligopolies With Mutually-Blocking Patent Portfolios", 69 *Antitrust Law Journal* 851.

Baumol W. V. (2002): *The Free-Market Innovation Machine: Analyzing the Growth Miracle of Capitalism*, Princeton University Press, Princeton.

Baxter W. (1966): "Legal Restrictions on the Exploitation of the Patent Monopoly: An Economic Analysis", 76 *Yale Law Journal* 267.

Bechtold S. (2004): "Das Urheberrecht und die Informationsgesellschaft", in Hilty R. and Peukert A., eds. (2004): *Interessenausgleich im Urheberrecht*, Nomos, Baden-Baden.

Beeney G. (2005): "Uncertainty and the Disincentive to Create Efficiencies: The Need for a Safe Harbour for Patent Pools", in Lugard P. and Hancher L., eds,, *On the Merits: Current Issues in Competition Law and Policy. Liber Amicorum Peter Plompen,* Intersentia, Brussels, 201-.

Bejcek J. (2005): "Mergers and New Technologies", 36 *IIC* 809.

Bentley D. R. (1996): "Genomic Sequence Information Should Be Released Immediately and Freely in the Public Domain", 274 *Science* 533.

Berger K. (2005): "Zur Anwendbarkeit der neuen Technologietransfer-Gruppenfreistellungsverordnung auf Softwareverträge", *KuR* 15.

Berman H. and Dreyfuss R. (2006): "Reflections on the Science and Law of Structural Biology, Genomics, and Drug Development", 53 *UCLA Law Review* 871.

Besen S., Kirby S. and Salop S. (1992): "An Economic Analysis of Copyright Collectives", 78 *Virginia Law Review* 383.

Bessen J. and Maskin E. (2000): *Sequential Innovation, Patents and Imitation*, MIT Department of Economics Working Paper.

Bird B. and Toutoungi A. (2006): "The New EC Technology Transfer Regulation: Two Years On", 28 *European Intellectual Property Review* 292.

Blundell R., Griffith R. and van Reenen J. (1995): "Dynamic Count Models of Technological Innovation", 105 *The Economic Journal* 333.

Borckhaus H. (2005): "Kartellrechtliche Grenzen der Vertragsgestaltung im Rahmen einer Zusammenarbeit von Unternehmen bei der Entwicklung von Arzneimitteln", *GRUR Int* 359.

Borland J. (2000): “Napster lawyer turns antitrust experience on RIAA” (2000), text available from http://news.com.com/2100-1023-243394.html?legacy=cnet.

Boyle J. (2003): “The Second Enclosure Movement and the Construction of the Public Domain”, 66 *Law and Contemporary Problems* 33.

Brandi-Dohrn M. (2005): *Reach-through Ansprüche und Reach-through Lizenzen*, VPP-Festschrift, München.

Braun N. (2003): “The Interface between the Protection of Technological Measures and the Exercise of Exceptions to Copyright and Related Rights: Comparing the Situation in the United States and in the European Community”, 25 *European Intellectual Property Review* 496.

Bray R. (2005): “The European Union ‘Software Patents’ Directive: What Is It? Why Is It? Where Are We Now?”, *Duke Law & Technology Review* 11.

Brenning M. (2002): “Commission Closes Probe into IBM’s Licensing Terms for Speech Recognition Engines”, 3 *Competition Policy Newsletter* 57 .

Buchanan G. and Yoon Y. (2000): “Symmetric Tragedies: Commons and Anti-Commons”, 43 *Journal of Law and Economics* 4.

Burk D. (2004): “DNA Rules: Legal and Conceptual Implications of Biological ‘Lock-Out’ Systems”, 92 *California Law Review* 1553.

Burnell R.M. (1995): “Symposium: A Critical Appraisal of the “Innovation Market” Approach”, 64 *Antitrust Law Journal* 1.

Buxbaum R. (1965): “Restriction Inherent in the Patent Monopoly: A Comparative Critique”, 113 *University of Pennsylvania Law Review* 633 (also published in German in under the title “Die dem Patentmonopol innewohnenden Beschränkungen”, (1966) *Wirtschaft und Wettbewerb* 193.

Cafaggi F. (2005): *Gouvernance et responsabilité des régulatures privés*, EUI LAW Working Paper No. 06/2006.

Capobianco A. (2004): “Licensing Music Rights: Media Convergence, Technological Developments and EC Competition Law”, 26 *European Intellectual Property Review* 113.

Carlson S. (1999): “Patent Pools and the Antitrust Dilemma”, 16 *Yale Journal of Regulation* 359.

Carrier M. (2004): “Cabining Intellectual Property Through a Property Paradigm”, 54 *Duke Law Journal* 1.

Castellot P. (2003):“Commission Settles Allegations of Abuse and Clears Patent Pools in the CD Market”, 3 *Competition Policy Newsletter* 56.

Charles River Associates (2003): *Report on Multiparty Licensing*, London/Brussels.

Chin A. (1998): “Analyzing Mergers in Innovation Markets”, 38 *Jurimetrics Journal* 119.

Chin Y. (1998): “Unilateral Technology Suppression: Appropriate Antitrust and Patent Law Remedies”, 66 *Antitrust Law Journal* 441.

Choumeleva D. (2003): “Competition Law Analysis of Patent Licensing Arrangements—The Particular Case of 3G3P”, 1 *Competition Policy Newsletter* 41.

Ciro T. and Fox M. (2006): “Competition v. Copyright in the Digital Age”, 28 *European Intellectual Property Review* 329.

Clark J., Piccolo J., Stanton B. and Tyson K. (2000): “Patent Pools: A Solution to the Problem of Access in Biotechnology Patents?”, United States Patent and Trademark Office paper, available from: http://www.uspto.gov/web/offices/pac/dapp/opla/patentpool.pdf.

Cohen J. (1997): “Zur ‘Magill’-Entscheidung des Europäischen Gerichtshofs”, *GRUR Int* 11.

Cohen J. and Burke A. (1998): “An Overview of the Antitrust Analysis of Suppression of Technology”, 66 *Antitrust Law Journal* 421.

Cohen W. and Levin R. (1989): “Empirical Studies of Innovation and Market Structure”, in Schmalensee R. and Willig R., eds., *Handbook of Industrial Organization*, Vol. II, North Holland, Amsterdam.

Cohen W., Nelson R. and Walsh J. (2000): *Protecting Their Intellectual Assets: Appropriability Conditions and Why U.S. Manufacturing Firms Patent (Or Not)*, NBER Working Paper No. 7552.

Coleman M. and Scheffman D. T. (1993): “Quantitative Analyses of Potential Competitive Effects from a Merger”, June 9, 2003, available at http://www.ftc.gov/be/quantmergeranalysis.pdf.

Conde Gallego B. (2006): “Die Anwendung des Kartellrechtlichen Mißbrauchsverbots auf “unerlässliche” Immaterialgüterrechte im Lichte der IMS Health- and Standard-Spundfass-Urteile”, *GRUR Int* 16.

Coriat B. and Orsi F. (2002): “Establishing a New Intellectual Property Rights Regime in the United States—Origins, Content, and Problems”, 31 *Research Policy* 1491.

Corley R. (2004): “IP Guidelines and Information Technology in Canada”, in *The Antitrust Review of the Americas 2004*, *Global Competition Review* 84.

Corley R. and Joneja N. (2005): “Antitrust’s Interface With Information Technology and Intellectual Property” in *The Antitrust Review of the Americas 2005, Global Competition Review* 89.

Cornish W. (2001): “The Expansion of Intellectual Property Rights”, in Schricker G., Dreier T. and Kur A., eds., *Geistiges Eigentum im Dienst der Innovation*, Nomos, Baden-Baden, 9-.

Cornish W. (2004): *Intellectual Property—Omnipresent, Distracting, Irrelevant?*, Oxford University Press, Oxford, *passim.*

Cornish W. and Llewellyn D. (2003): *Intellectual Property: Patents, Copyright, Trademarks And Allied Rights*, 5th edition, Sweet & Maxwell, London.

Cottier T. (2005): “The Doha Waiver and its Effects on the Nature of the TRIPs system and on Competition Law: The Impact of Human Rights”, text available at http://www.nccr-trade.org/.

Cournot A. (1838): *Recherches sur les principes mathématiques de la théorie des richesses*, L. Hachette, Paris.

Cowe and Taylor (1998): “R and D and Technology Purchase through License Agreements: Complementary Strategies and Complementary Assets”, 28 *R and D Management* 263.

Dahdouh T. N. and Mongoven J. F. (1996): “The Shape of Things to Come: Innovation Market Analysis in Merger Cases”, 64 *Antitrust Law Journal* 405.

David P. (2003): “Intellectual Property Institutions and the Panda´s Thumb: Patents, Copyright and Trade Secrets in Economic Theory and History”, in Wallerstein M. B., ed., *Global Dimensions of Intellectual Property Rights in Science and Technology*, National Academies Press, Washington D.C., 19-.

De Santi S. and Cohen M. (2005): “Competition to Innovate: Strategies for Proper Antitrust Assessments”, in Dreyfuss R., Zimmerman D. and First H., eds., *Expading the Boundaries of Intellectual Property*, Oxford University Press, Oxford.

De Schrijver S. and Marquis M. (2004): “Technology Licensing in the EU after the Big Bang: the New Technology Transfer Block Exemption Regulation and Guidelines”, *Business Law Review* 161.

Delrahim M. (2004): “Forcing Firms to Share the Sandbox: Compulsory Licensing of Intellectual Property Rights and Antitrust”, address before the British Institute of International and Comparative Law, 10th of May 2004, text available at http://www.usdoj.gov/atr/public/speeches/203627.pdf.

Derclaye E. (2004): “Abuse of a Dominant Position and Intellectual Property Rights: A Suggestion to Reconcile The Community Court’s Case Law”, in Graham C. and Smith F., eds., *Competition, Regulation and the New Economy*, Oxford University Press, Oxford.

Derclaye E. (2004): “The *IMS Health* Decision—A Triple Victory”, 27 *World Competition* 397.

Desurmont T. (1989): “The *SACEM* and Competition Law”, 140 *Revue Internationale du Droit d’Auteur* 116.

Dietz A. (2004): “European Parliament Versus Commission: How to Deal with Collecting Societies”, 35 *IIC* 809.

DiMasi J., Hansen R. and Grabowski H. (2003): “The Price of Innovation: New Estimates of Drug Development Costs”, 22 *Journal of Health Economics* 151.

Dinwoodie G. and Dreyfuss R. (2004): “International Intellectual Property and the Public Domain of Science”, 7 *Journal of International Economic Law* 431.

Dolmans M. and Graf T. (2004): “Analysis of Tying Under Article 82 EC: The European Commission’s Microsoft Decision in Perspective”, 27 *World Competition* 225.

Dolmans M. and Piilola A. (2003): “The Proposed New Technology Transfer Block Exemption”, 26 *World Competition* 541.

Dolmans M. and Piilola A. (2004): “The New Technology Transfer Block Exemption—A Welcome Reform, After All”, 27 *World Competition* 351.

Drahos P. (1996): *A Philosophy of Intellectual Property*, Aldershot, Dartmouth.

Dreier T. (2005): “Creative Commons, Science Commons—Ein Paradigmenwechsel im Urheberrecht?”, in *Perspektiven des Geistigen Eigentums und Wettbewerbsrechts: Festschrift für Gerhard Schricker zum 70. Geburtstag*, Beck, Münich.

Drexl J. (2004): “Die neue Gruppenfreistellungsverordnung über Technologietransfer-Vereinbarungen im Spannungsfeld von Ökonomisierung und Rechtssicherheit”, 53 *Gewerblicher Rechtsschutz und Urheberrecht Internationaler Teil* (GRUR Int.) 716.

Drexl J. (2004): “Die neue Gruppenfreistellungsverordnung über Technologietransfer-Vereinbarungen im Spannungsfeld von Ökonomisierung und Rechtssicherheit”, *GRUR Int 2004* 716.

Drexl J. (2004): “IMS Health and Trinko—Antitrust Placebo for Consumers Instead of Sound Economics in Refusal-to-Deal Cases”, 35 *IIC* 788.

Drexl J. (2006): “Auf dem Weg zu einer neuen europäischen Marktordnung der Kollektiven Wahrnehmung von Online-Rechten der Musik?”, in Riesenhuber K., ed., *Wahrnehmungsrecht in Polen, Deutschland und Europa*, INTERGU-Tagung, Berlin.

Drexl J. (2006): „Das Recht der Verwertungsgesellschaften in Deutschland nach Erlaß der Kommissionsempfehlung über die Kollektive Verwertung von urheberrechten“, paper presented in the series of “Deutsch-französische Urheberrechtsvorträge” of the Max-Planck-Institute for Intellectual Property, Munich, and the Institut de Recherche en propriété intellectuelle, Université Paris II, September/November 2006.

Drexl J., Hilty R. and Kur A. (2005): "Design Protection for Spare Parts and the Commission's Proposal for a Repairs Clause", 36 *IIC* 448.

Dreyfuss R. (2000): "Collaborative Research: Conflicts on Authorship, Ownership, and Accountability", 53 *Vanderbilt Law Review* 1161.

Dreyfuss R. and Kwall R. (2004): *Intellectual Property*, 2nd edition, Foundation Press, New York.

Dusollier S. (2003): "Exceptions and Technological Measures in the European Copyright Directive of 2001—An Empty Promise", 34 *IIC* 62.

Dusollier S. (2005): "Technology as an Imperative for Regulating Copyright: From the Public Exploitation to the Private Use of the Work", 27 *European Intellectual Property Rewiew* 201.

Dusollier S. (2005): *Droit d'auteur et protection des oeuvres dans l'univers numérique*, Larcier, Brussels.

Easterbrook F. (1990): "Intellectual Property Is Still Property", 13 *Harvard Journal of Law and Public Policy* 108.

Easterbrook F. (2000): "Information and Antitrust", *University of Chicago Legal Forum* 1.

Ehlermann C.-D. and Laudati L., eds. (1998): *European Competition Law Annual 1997: The Objectives of Competition Policy*, Hart Publishing, Oxford and Portland, Oregon.

Eilmansberger T. (2005): "How to Distinguish Good from Bad Competition under Article 82 EC: In Search of Clearer and More Coherent Standards for Anti-Competitive Abuses", 42 *Common Market Law Review* 129.

Eisenberg R. (1989): "Patents and the Progress of Science—Exclusive Rights and Experimental Use", 56 *University of Chicago Law Review* 1017.

Eisenberg R. (2001): "Bargaining Over the Transfer of Proprietary Research Tools: Is the Market Failing or Emerging?" in Dreyfuss R., Zimmerman D. and First H., (eds.), *Expanding the Boundaries of Intellectual Property*, Oxford University Press, Oxford, 223-.

Elhauge E. (2003): "Defining Better Monopolization Standards", 56 *Stanford Law Review* 253.

Ellig J. and Lin D. (2001): "A Taxonomy of Dynamic Competition Theories", in Ellig J., ed., *Dynamic Competition and Public Policy: Technology, Innovation and Antitrust Issues*, Cambridge University Press, New York.

Emanuel J. R. (2005): "Yale Scientists 'See' Basis of Antibiotic Resistance", YALE News Release, April 22, available from: http://www.yale.edu/opa/newsr/05-04-22-01.all.html.

Epstein R. (2003): "Steady the Course, Property Rights in Genetic Material", in Kieff F.S., ed., *Perspectives on Properties of the Human Genome Project*, Academic Press, San Diego, 153-.

Evans D. and Padilla A. (2005): "Designing Antitrust Rules for Assessing Unilateral Practices: A Neo-Chicago Approach", 72 *University of Chicago Law Review* 73.

Evans D. and Padilla J. (2005) "Excessive Prices: Using Economics to Define Administrable Legal Rules", 1 *Journal of Competition Law & Economics* 97.

Evans D. and Schmalensee R. (2001): *Some Economic Aspects of Antitrust Analysis in Dynamically Competitive Industries*, NBER Working Paper No. 8268.

Facey B. A. and Assaf D. H. (2002): "Monopolization and Abuse of Dominance in Canada, the United States, and the European Union: A Survey", 70 *Antitrust Law Journal* 513.

Fagerlund N. and Rasmussen S. (2005): "Astra Zeneca: The First Abuse Case in the Pharmaceutical Sector", 3 *Competition Policy Newsletter* 54.

Falce V. (2003): "Diritto d'autore e innovazione derivata nelle Information Technologies", 1 *Rivista di Diritto Industriale* 74.

Farjat G. (2000): "Les pouvoirs économiques privés", in *Mélanges en l'honneur de Phillipe Kahn*, Litec, Paris, 613-.

Farrel J. and Saloner G. (1985): "Standardization, Compatibility and Innovation", *RAND Journal of Economics* 70.

Farrell J. and Katz M. (2000): "Innovation, Rent Extraction and Integration in Systems Markets", 48 *Journal of Industrial Economics* 413.

Farrell J. and Weiser P. (2003): "Modularity, Vertical Integration and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age", 17 *Harvard Journal of Law and Technology* 85.

Faull J. and Nikpay A. (1999): *The EC Law of Competition*, Oxford University Press, Oxford.

Feil M. (2005): "The New Block Exemption Regulation on Technology Transfer Agreements in the Light of the U.S. Antitrust Regime on the Licensing of Intellectual Property", 36 *IIC* 31.

Ficsor M. (2003): "Collective Management of Copyright in the International Environment", *ZUM* 3.

Fitzgerald A. and Fitzgerald B. (2004): *Intellectual Property in Principle*, Lawbook, Sydney.

Flynn J. (1998): "Antitrust Policy, Innovation Efficiencies, and the Suppression of Technology", 66 *Antitrust Law Journal* 487.

Folz C. (2002): *Technologiegemeinschaften und Gruppenfreistellung*, Carl Heimanns Verlag KG, Cologne.

Forrester I. (2000): "Achieving and Safeguarding Conditions for Fair and Efficient Competition", in Ehlermann C.-D. and Gosling L., eds., *European Competition Law Annual 1998: Regulating Telecommunications Markets*, Hart Publishing, Oxford and Portland, Oregon, 596-.

Forrester I. (2005): "Article 82: Remedies in Search of Theories?", in Hawk B., ed., *International Antitrust Law and Policy 2004*, *Annual Proceedings of the Fordham Corporate Law Institute,* Juris Publ., New York, 167-.

Forrester I. (2005): "EC Competition Law as a Limitation on the Use of IP Rights in Europe: Is there a Reason to Panic?", in Ehlermann C.-D. and Atanasiu I, eds., *European Competition Law Annual 2003: What Is an Abuse of a Dominant Position?,* Hart Publishing, Oxford and Portland, Oregon, 503-.

Forrester I. (2005): "European Competition Law and IP", in *Twelfth St. Gallen International Competition Law Forum*, University of St. Gallen, Switzerland.

Fox E. and Janow M. (2005): *Antitrust and Intellectual Property: Duties to License, Parallel Imports, and the Question of Differential Treatment for Developing Countries*, NYU/Columbia Workshop Report, Post-Fordham International Competition Policy Conference, October 9th, 2004.

Fuchs A. (1989): *Kartellrechtliche Grenzen der Forschungskooperation*, Nomos, Baden-Baden.

Fuchs A. (2005): "Die Gruppenfreistellungsverordnung als Instrument der europäischen Wettbewerbspolitik im System der Legalausnahme*", Zeitschrift für Wettbewerbsrecht* 1.

Fudenberg D., Gilbert R., Stiglitz J. and Tirole J. (1983): "Preemption, Leapfrogging, and Competition in Patent Races", 22 *European Economic Review* 3.

Furse M. (2004): "Article 82, *Microsoft* and Bundling, or 'the Half Monti' ", 3 *Competition Law Journal* 169.

Gallini N. and Trebilcock M. (1998): "Intellectual Property Rights and Competition Policy: A Framework for the Analysis of Economic and Legal Issues", in Anderson R. and Gallini N., eds., *Competition Policy and Intellectual Property Rights in the Knowledge-Based Economy*, University of Calgary Press, Calgary.

Gandal N. (2002): "Compatibility, Standardization, and Network Effects: Some Policy Implications", 18 *Oxford Review of Economic Policy* 80.

Geiger C. (2006): "Constitutionalizing" Intellectual Property Law? The Influence of Fundamental Rights on Intellectual Property in the European Union", 37 *IIC* 371.

Geller P. (2003): "An International Patent Utopia?", 25 *European Intellectual Property Review* 515.

Geradin D. (2004): "Limiting the Scope of Article 82 of the EC Treaty: What Can the EU Learn from the U.S. Supreme Court's Judgment in *Trinko* in the Wake of *Microsoft*, *IMS*, and *Deutsche Telekom*?", 41 *Common Market Law Review* 1519.

Geroski P. (1990): "Innovation, technological opportunity and market structure", 42 *Oxford Economic Papers* 586.

Ghidini G. and Arezzo E. (2005): "Patent and Copyright Paradigms vis-à-vis Derivative Innovation: The Case of Computer Programs", 36 *IIC* 159.

Gilat D. (1995): *Experimental Use and Patents*, IIC Studies, Vol. 16, VCH, Weinheim.

Gilbert R. (1995): "The 1995 Antitrust Guidelines For The Licensing Of Intellectual Property: New Signposts for the Intersection of Intellectual Property and the Antitrust Laws", address before the ABA Section of Antitrust Law, Spring Meeting (April 6, 1995), available at http://www.usdoj.gov/atr/public/speeches/0167.htm.

Gilbert R. and Newberry D. (1982): "Preemptive Patenting and the Persistence of Monopoly", 72 *American Economic Review* 514.

Gilbert R. and Tom W. (2001): "Is Innovation King at the Antitrust Agencies? The Intellectual Property Guidelines FiveYears Later", 69 *Antitrust Law Journal* 43.

Gilbert R. and Sunshine S. (1995): "Incorporating Dynamic Efficiency Concerns in Merger Analysis: The Use of Innovation Markets", 63 *Antitrust Law Journal* 569.

Ginsburg J. (2005): *Legal Protection of Technological Measures Protecting Works of Authorship: International Obligations and the US Experience*, Columbia Public Law Research Paper 0593/2005 (available at http://lsr.nellco.org/columbia/pllt/papers0593).

Godt C. (2006): "Forschungs-, Wissenschafts- und Technologiepolitik", in Dauses M., ed., *Handbuch des EU-Wirtschaftsrechts*, Looseleaf, Munich.

Godt C. (2006): *Eigentum an Information—Patentschutz und allgemeine Eigentumstheorie am Beispiel genetischer Information*, Mohr Siebeck, Tübingen.

Goldman C. and Witterick C. (2006): "Abuse of Dominant Position—The Canadian Approach", in Ehlermann C.-D. and Atanasiu I., eds., *European Competition Law Annual 2004: What Is An Abuse of a Dominant Position?*, Hart Publications, Oxford and Portland, Oregon, 335-.

Goldman C., Corley R. and Witterick C. (2004):"A Canadian Perspective on Intellectual Property Rights and Competition Policy: Striving for Balance and Related Comity Considerations", paper presented at the 31st Annual Conference on International Antitrust Law & Policy, Fordham Corporate Law Institute, October 2004.

Gordon W. (1992): "Reality as Artifact", 55 *Law and Contemporary Problems* 93.

Gordon W. (1994): "Assertive Modesty: An Economics of Intangibles", 94 *Columbia Law Review* 2579.

Gotts K. and Goldman C. (2003): "The Role of Efficiencies in M&A Global Antitrust Review: Still in Flux?", in Hawk B., ed., *Fordham Corporate Law Institute 2002*, New Jork, Juris Publ., 201-.

Gotzen F. (2005): "A New Perspective for the Management of Copyright and Competition Law in the Internal Market", in *Festschrift für Gerhardt Schricker zum 70. Geburtstag*, C.-H. Beck, München.

Govaere I. (1996): *The Use and Abuse of Intellectual Property Rights in EC Law*, Sweet & Maxwell, London.

Govaere I. and Ullrich H., eds., *Intellectual Property, International Trade, and the Public Interest* (forthcoming, Frankfurt 2006).

Grandal H. (2002): "Compatibility, Standardization and Network Effects: Some Policy Implications", 18 *Oxford Review of Economic Policy* 80.

Granstrand O. (1999): *The Economics and Management of Intellectual Property*, Edward Elgar, Cheltenham.

Granstrand O. (2003): "Are We on Our Way in the New Economy With Optimal Inventive Steps?", in Granstrand O., ed., *Economics, Law, and Intellectual Property*, Kluwer Academic, Boston.

Griffin J. (1982): "The Demise of the Nine No-No's and Other Significant Changes in US Antitrust Policies Concerning Transnational Technology Licensing", 39 *Swiss Review of International Competition Law* 15.

Gugler K. and Siebert R. (2004): *Market Power versus Efficiency Effects of Mergers and Research Joint Ventures: Evidence from the Semiconductor Industry*, NBER Working Paper NO. 10323.

Gunther J.-P. and Breuvart C. (2005): "Misuse of Patent and Drug Regulatory Approval Systems in the Pharmaceutical Industry. An Analysis of US and EU Converging Approaches", 25 *European Competition Law Review* 669.

Gyselen L. (2005) : "Le titulaire d'un droit de propriété intellectuelle doit-il fournir le produit de son droit à un concurrent?", 2 *Concurrences—Revue des droits de la concurrence* 24.

Ham Z. and Hall B. (2001): "The Effects of Strengthening Patent Rights on Firms Engaged in Cumulative Innovation: Insights from the Semiconductor Industry" (draft of June 2001).

Hamilton D. P. (2005): "How Genentech, Novartis Stifled a Promising Drug", *Wall Street Journal*, April 5.

Harhoff D. and Reitzig M. (2001): "Strategien zur Gewinnmaximierung bei der Anmeldung von Patenten", 5 *Zeitschrift für Betriebswirtschaft* 509.

Hart O. and Tirole J. (1990): *Vertical Integration and Market Foreclosure*, NBER Reprints 1517.

Hawk B. and Denaeijer N. (2001): "The Development of Articles 81 and 82 EC Treaty: Legal Certainty", in Ehlermann C.-D. and Atanasiu I., eds., *European Competition Law Annual 2000: The Modernisation of EC Antitrust Policy*, Hart Publishing, Oxford and Portland, Oregon, 129-.

Heath C. (2004): "Kartellrecht", in Spindler G., ed., *Rechtsfragen bei open source*, Hrsg. und Autor, Cologne.

Heinemann A. (2002): *Immaterialgüterschutz in der Wettbewerbsordnung*, Mohr Siebeck, Tübingen.

Heinemann A. (2004): "Schutzrechte in der Informationsgesellschaft und ihr Verhältnis zum Kartellrecht" (2004) in Behrens P., ed., *Stand und Perspektiven des Schutzes Geistigen Eigentums in Europa*, Baden-Baden, Nomos, 105-.

Heinemann A. (2005): "Compulsory Licences and Product Integration in European Competition Law—Assessment of the European Commission's *Microsoft* Decision", 36 *IIC* 63.

Heinemann A. (2005): "Kartellrechtliche Zwangslizenzen im Patentrecht", 2 *Zeitschrift für Wettbewerbsrecht* 198.

Heller M. (1998): "The Tragedy of the Anticommons: Property in the Transition from Marx to Markets", 111 *Harvard Law Review* 621.

Heller M. and Eisenberg R. (1998): "Can Patents Deter Innovation? The Anticommons in Biomedical Research", 280 *Science* 698.

Hicks J. (1935):"Annual Survey of Economic Theory: The Theory of Monopoly", 3 *Econometrica* 1.

Hilty R. and Peukert A. (2004): *Interessensausgleich im Urheberrecht*, Nomos, Baden-Baden.

Hirsbrunner S. (2005): "Neues aus Brüssel zum Verhältnis von Patent- und Kartellrecht: die Astra Zeneca-Entscheidung der Europäischen Kommission", *EWS* 488.

Hoerner R. (1984): "Patent Misuses", 53 *Antitrust Law Journal* 641.

Hoerner R. (1995): "Innovation Markets: New Wine in Old Bottles?", 64 *Antitrust Law Journal* 49.

Höppner P. (2005): "Missbräuchliche Verhinderung 'neuer' Produkte durch Immaterialgüterrechte—Zur Anwendung von Art. 82 EG auf Lizenzvereigerungen", 54 *Gewerblicher Rechtsschutz und Urheberrecht Internationaler Teil* (GRUB) 457.

Hovenkamp H. (1999): *Federal Antitrust Policy, The Law of Competition and Its Practice*, St. Paul, Minneapolis.

Hovenkamp H. , Janis M. and Lemley M. (2003): "Anticompetitive Settlement of Intellectual Property Disputes", 87 *Minnesota Law Review* 1719.

Hovenkamp H., Janis M. and Lemley M. (2005): "Unilateral Refusals to License in the U.S.", Stanford Law School, John M. Olin Program in Law and Economics Working Paper No. 303, available at http://ssrn.com/abstract=703161.

Idris K. (2003): *Intellectual Property—A Power Tool for Economic Growth,* WIPO, Geneva.

Immenga U. and Mestmäcker E.-J., eds., *EG-Wettbewerbsrecht*, 2nd edition (forthcoming, Munich 2006).

Ivaldi M., Julien B., Rey P., Seabright P. and Tirole J. (2003): *The Economics of Unilateral Effects* (2003), IDEI Report for DG Competition, available at http://europa.eu.int/comm/competition/mergers/review/the_economics_of_unilateral_effects_en.pdf.

Ivaldi M., Julien B., Rey P., Seabright P. and Tirole J. (2003): *The Economics of Tacit Collusion*, IDEI Report for DG Competition, available at http://europa.eu.int/comm/competition/mergers/review/the_economics_of_tacit_collusion_en.pdf.

Jaffe A. (2000): "The US Patent System in Transition: Policy Innovation and the Innovation Process", 29 *Research Policy* 531.

Jaffe A. and Lerner J. (2004): *Innovation and Its Discontents: How Our Broken Patent System is Endangering Innovation and Progress, and What to Do About It*, Princeton University Press, Princeton.

Jones C. A. (2006): "Foundations of Competition Policy in the EU and USA: Conflict, Convergence and Beyond", in Ullrich H., ed., *The Evolution of European Competition Law*, Chelterham, London.

Jones O. and Goldsmith T. (2005): "Law and Behavioral Biology", 105 *Columbia Law Review* 405.

Kallaugher J. and Venit J. (1995): "Essential Facilities: A Comparative Law Approach", in Hawk B., ed., *International Antitrust Law & Policy 1994,* Juris Publ., New York.

Kallay D. (2004): *The Law and Economics of Antitrust and Intellectual Property*, Edward Elgar, Northhampton.

Käller A. (2004): *Die Verweigerung einer immaterialgüterrechtlich geschützten Leistung und das Mißbrauchsverbot des Article 82 EG*, Nomos, Baden-Baden.

Kamien M. and Schwartz N. (1975): "Market Structure and Innovation: A Survey", 13 *Journal of Economic Literature* 1.

Kanter D. (2006): "IP and Compulsory Licensing on Both Sides of the Atlantic—An Appropriate Antitrust Remedy or a Cutback on Innovation?", 28 *European Intellectual Property Review* 351.

Katz A. (2004): *The Potential Demise of Another Natural Monopoly: New Technologies and The Future of Collective Administration of Copyright*, U Toronto Law and Economics Research Paper No. 04-02, text available at http://ssrn.com/abstract=547802.

Katz M. and Shapiro C. (1985): "Network Externalities, Competition, and Compatibility", *American Economic Review* 424.

Katz M. and Shelanski H. (2004): *Merger Policy and Innovation: Must Enforcement Change to Account for Technological Progress*, NBER Working Paper No. 10170.

Kaufer E. (1970): *Patente, Wettbewerb und technischer Fortschritt*, Athenäum Verlag, Bad Homburg.

Khemami R. S. and Schöne R. (1998): "Competition Policy Objectives in the Context of a Multilateral Competition Code", in Ehlermann C.-D. and Laudati L., eds., *European Competition Law Annual 1997: Objectives of Competition Policy,* Hart Publishing, Oxford and Portland, Oregon, 187-.

Killick J. (2004): "*IMS* and *Microsoft* Judged in the Cold Light of *IMS*", 1 *The Competition Law Review* 23

Kingston W. (1994): "Compulsory Licensing with Capital Payments As an Alternative to Monopoly Grants for Intellectual Property", 23 *Research Policy* 661.

Kitch E. (1977): "The Nature and Function of the Patent System", 20 *Journal of Law and Economics* 265.

Kitch E. (2002): “Elementary and Persistent Errors in the Economic Analysis of Intellectual Property”, 53 *Vanderbilt Law Review* 1729.

Kjølbye L. (2004): “The New Commission Guidelines on the Application of Article 81(3): An Economic Approach to Article 81”, 25 *European Competition Law Review* 566.

Klawitter C. (2005): “Safe Harbour und Legalausnahme: Die neue Gruppenfreistellungsverordnung Technologietransfer im Spannungsfeld zwischen Rechtssicherheit und Gestaltungsrisiko”, in *VPP-Festschrift*, Munich.

Klees A. (2005): Europäisches Kartellverfahrensrecht, Carl Heymanns Verlag, Cologne.

Koenig C. and Neumann A. (2003): “Standardisierung und EG-Wettbewerbsrecht—ist bei vertrauenswürdigen Systemumgebungen wettbewerbspolitisches Misstrauen angebracht?“, *Wirtschaft und Wettbewerb* 1138.

Kolasky W. (2002): “Using Competition Policy to Promote International Competitiveness”, address before the American Chamber of Commerce, Seoul, November 14, 2002, text available at http://wwww.usdoj.gov/atr/public/speeches/200485.

Körber T. (2004): “Geistiges Eigentum, essential facilities und ‘Innovations-missbrauch’: Überlegungen zum *Microsoft*-Fall im Lichte der EuGH-Entscheidung *IMS Health GmbH*”, 50 *Recht der internationalen Wirtschaft* 881.

Kortum S. and Lerner J. (1999): “What Is Behind the Recent Surge in Patenting”, 28 *Research Policy* 1.

Kreile R. and Becker J. (1997): “Collecting Societies in the Information Society: Economic And Legal Aspects”, in *Gema Jarbuch 1996–7.*

Kreile R. and Becker J. (2005): “Digital Rights Management und private Vervielfältigung aus der Sicht der GEMA”, in *Festschrift für G. Schricker zum 70*, C.-H. Beck, Munich.

Krestschmer M. (2002): “The Failure of Property Rules in Collective Administration”, 24 *European Intellectual Property Review* 126.

Kretschmer M. (2003): “Digital Copyright: The End of an Era”, 25 *European Intellectual Property Review* 333.

Kronstein H. (1967): *Das Recht der internationalen Kartelle*, J. Schweitzer Verlag, Berlin.

Kübel C. (2004): *Zwangslizenzen im Immaterialgüter- und Wettbewerbsrecht*, Carl Heymanns Verlag, Cologne.

Landes W. and Posner R. (2003): *The Economic Structure of Intellectual Property Law*, Harvard University Press, Belknap.

Landman L. B. (1998): “Competitiveness, Innovation Policy, and the Innovation Market Myth: A Reply to Tom and Newberg on Innovation Markets as The “Centerpiece” of ‘New Thinking’ on Innovation”, 13 *St. John’s Journal of Legal Commentaries* 223.

Langlois R. (2001): “Technological Standards, Innovation and Essential Facilities”, in Ellig J., ed., *Dynamic Competition and Public Policy: Technology, Innovation and Antitrust Issues*, Cambridge University Press, Cambridge, 193-.

Lanjouw J. and Schankerman M. (2001): “Characteristics of Patent Litigation: A Window on Competition”, 32 *RAND Journal of Economics* 129.

Lea G. and Hall P. (2004): “Standards and Intellectual Property Rights: An Economic and Legal Appraisal”, 16 *Information Economics and Policy* 67.

Lee N. (2005): "Proprietary Standards and Patent Law", in Bruun N., ed., *Intellectual Property Beyond Rights*, Helsinki, 159-.

Lee P. (2006): "Alternative One-Stop Platform Technology Patent Licenses", paper presented at the International Workshop on "Gene Patents and Clearing Models", Leuven, 8–10 June 2006.

Leenheer D. and Zimmerman H. (2005): "It's an Original!(?): In Pursuit of Copyright's Elusive Essence", 28 *Columbia Journal of Law and Arts* 187.

Lehmann M. (1989): "Property and Intellectual Property—Property Rights and Restrictions on Competition in Furtherance of Competition", 20 *International Review of Intellectual Property and Competition Law* 1.

Leistner M. (2005): "Intellectual Property and Competition Law: The European Development from *Magill* to *IMS Health* Compared to Recent German and US Case Law", 2 *Zeitschrift für Wettbewerbsrecht* 138.

Lejeune M. (2004): "Die neue europäische Gruppenfreistellungsverordnung für Technologietransfer-Vereinbarungen", 20 *Computer und Recht* 467.

Lejeune M. and Ullrich H., eds., *Der internationale Softwarevertrag*, 2nd edition, Heidelberg (forthcoming).

Lemley M. (2001): "Rational Ignorance at the Patent Office", 95 *N. W. U. Law Review* 1495.

Lemley M. and Shapiro C. (2005): "Probabilistic Patents", 19 *Journal of Economic Persperctives* 75.

Leupold H. and Pautke P. (2005): "*IMS Health* vs. *Microsoft*: Befindet sich die Kommission bei Kartellrechtlichen Zwangslizenzen (erneut) auf Konfrontationskurs mit dem EuGH?", 16 *Europäisches Wirtschafts-und Steuerrecht* 108.

Lévêque F. (2004): "Quel est le prix raisonnable d'une licence obligatoire?", 1 *Concurrences—Revue des droits de la concurrence* 16.

Lévêque F. (2005): "Innovation, Leveraging and Essential Facilities: Interoperability Licensing in the EU *Microsoft* Case", 28 *World Competition* 71.

Lévèque F. and Ménière Y. (2004): *The Economics of Patents and Copyright*, Berkeley Electronic Press, available at www.cerna.ensmp.fr/PrimerForFree.html.

Levin R., Klevorick A., Nelson R. and Winter S. (1987): *Appropriating the Returns from Industrial Research and Development*, Brookings Papers on Economic Activity No. 3/1987.

Lieberknecht O. (1953): *Patente, Lizenzverträge und Verbot von Wettbewerbsbeschränkungen*, Klostermann, Frankfurt.

Lilienthal D. (1952): *Big Business: A New Era*, Ayer Co. Publ, Manchester.

Lipsky A. (1981): "Current Antitrust Division Views on Patent Licensing Practices", 50 *Antitrust Law Journal* 515.

Lipsky A. (2003): "Antitrust Economics—Making Progress, Avoiding Regression", 12 *George Mason Law Review* 163.

Louis J.-V. (2005): "Le nouveau règlement d'exemption par catégorie des accords de transfert de technologies: Une modernisation et une simplification", *Cahiers de Droit Europeen* 377.

Lowe P. and Peeperkorn L. (2004): "Singing In Tune With Competition And Innovation: The New EU Competition Policy Towards Licensing", paper presented at the Fordham Corporate Law Institute Annual Conference 2004 (Roundtable on Intellectual Property and Antitrust).

Lübbig T. (2004): ". . . et dona ferentes: Anmerkungen zur neuen EG-Gruppenfreistellungsverordnung im Bericht des Technologietransfers", *GRUR Int* 483.

Lueder T. (2005): "Legislative and Policy Developments in the European Union", presented at the 13th Annual Conference on International Intellectual Property Law and Policy, Fordham University School of Law.

Lugard P. and Hancher L. (2004): "Honey, I Shrunk the Article! A Critical Assessment of the Commission's Notice on Article 81(3) of the EC Treaty", 25 *European Competition Law Review* 410.

Mackernan C. (2004): "Red Flags in the Trousseau: A Survey of the Competition Treatment of IP Assets in M&A", 26 *European Intellectual Property Review* 461.

Marquardt P. and Leddy M. (2003): "The Essential Facilities Doctrine and Intellectual Property Rights: A Response to Pitofsky, Patterson, and Hooks", 70 *Antitrust Law Journal* 847.

Martin S. (2001): "Competition Policy for High Technology Industries", 1 *Journal of Industry, Competition and Trade* 441.

Maskus K. and Reichman J. (2005): "Private Knowledge Goods and the Privatisation of Global Public Goods", in Maskus K. and Reichman J., eds., International Public Goods and Transfer of Technology under a Globalized Intellectual Property Regime, Cambridge University Press, New York.

Mavroidis P. and Neven D. (2005): "*Bronner* Kebab: Beyond Refusal to Deal and Duty to Cooperate", in Ehlermann C.-D. and Atanasiu I., eds., *European Competition Law 2003: What Is an Abuse of A Dominant Position?*, Hart Publishing, Oxford and Portland, Oregon, 355-.

Mavroidis P., Bacchetta M. and Horn H. (1998): "Do Negative Spill-Overs From Nationally Pursued Competition Policies Provide a Case for Multilateral Competition Rules?", in Ehlermann C.-D. and Laudati L., eds., *European Competition Law Annual 1997: Objectives of Competition Policy*, Hart Publishing, Oxford and Portland, Oregon, 271-.

Mazzoleni R. and Nelson R. (1998): "The Benefits and Costs of Strong Patent Protection: A Contribution to the Current Debate", 27 *Research Policy* 273.

McKeough J., Stewart A. and Griffith P. (2004): *Intellectual Property in Australia*, LexisNexis, Butterworths, Chatswood, NSW.

Meinberg H. (2006): "From *Magill* to *IMS Health*: The New Product Requirement and the Diversity of Intellectual Property Rights", 28 *European Intellectual Property Review* 398.

Melamed D. and Stoeppelwerth A. (2002): "The *CSU* Case: Facts, Formalism and the Intersection of Antitrust and Intellectual Property Law", 10 *George Mason Law Review* 407.

Mendez Pereira M. (2003):"From Discothèques to Websites, A New Approach to Music Copyright Licensing: The *Simulcasting* Decision", *EC Competition Policy Newsletter* 44.

Menges R. (1999): "Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organisations", 84 *California Law Review* 1293.

Mensching J. (2004): "The *Microsoft* Decision—Promoting Innovation", in text presented at the Sweet & Maxwell 4th Annual Competition Law Review Conference, 22 October 2004, available from http://europa.eu.int/comm/competition/speeches/text/sp2004_017_en.pdf.

Merdzo P. (2005): "Der Fall 'IMS Health' und das Spannungsverhältnis zwischen nationalen Immaterialgüterrechten und dem europäischen Wettbewerbsrecht", 1 *Zeitschrift für Europäische Studien* 135.

Merges R. (1994): "Of Property Rules, Coase, and Intellectual Property", 94 *Columbia Law Review* 2655.

Merges R. (1996): "Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organizations", 84 *California Law Review* 1293.

Merges R. (1998): "Antitrust Review of Patent Acquisitions: Property Rights, Firm Boundaries, and Organization", in Anderson R. and Gallini N., eds., *Competition Policy and Intellectual Property Rights in a Knowledge-Based Economy*, University of Calgari Press, Calgary.

Merges R. (2000): "Intellectual Property Rights and The New Institutional Economics", 53 *Vanderbilt Law Review* 1857.

Merges R. (2001): "Institutions for Intellectual Property Transactions: The Case of Patent Pools", in Dreyfuss R., Zimmerman D. and First H., eds., *Expanding the Boundaries of Intellectual Property*, Oxford University Press, Oxford.

Merges R. and Duffy J. (2002): *Patent Law and Policy: Cases and Materials*, Matthew Bender, Newark, NJ.

Merges R. and Nelson R. (1990): "Of the Complex Economics of Patent Scope", 90 *Columbia Law Review* 839.

Merril S., Levin R. and Myers M., eds. (2004): *A Patent System for the 21st Century*, National Research Council, Washington D.C.

Mestmäcker E.-J. (1998): "Authors' Societies and User Conglomerates", 158 *Gema News.*

Mestmäcker E.-J. (2004): "Gewerbliche Schutzrechte und Urheberrechte in der Eigentums- und Wirtschaftsordnung", in Fuchas A., Schwintowski H.-P. and Zimmer D., eds., *Wirtschafts- und Privatrecht im Spannungsfeld von Privatautonomie und Regulierung: Festschrift für Ulrich Immenga*, C.-H. Beck, Munich.

Mestmäcker E.-J. (2005): "Agreements of Reciprocal Representation of Collecting Societies in the Internal Market, The Related Rights of Phonogram Producers as a Test Case (*Simulcasting*)", 63 *Revue Internationale du Droit d'Auteur* 13.

Mestmäcker E.-J. and Schweitzer H. (2004): *Europäisches Wettbewerbsrecht,* 2nd edition, CH Beck, Munich.

Metzlaff K. (2000): "Franchisesysteme und EU-Kartellrecht—neueste Entwicklungen", *Betriebsberater*, 1201, 1203.

Monéger J. (2006): "Competition, Regulation and System Coherence", in Ullrich H., ed., *The Evolution of European Competition Law*, Chelterham, London.

Montagnani M. (2006): "Predatory and Exclusionary Innovation; Which Legal Standard for Software Integration in the Context of the Competition versus Intellectual Property Rights Clash", 37 *IIC* 304.

Monti M. (2004): "Article 82 EC Treaty and New Economy Markets", in Graham C. and Smith F., eds., *Competition, Regulation and the New Economy*, Oxford University Press, Oxford.

Monti M. (2004): "The New EU Policy on Technology Transfer Agreements", speech delivered at the Ecole des Mines, Paris, 16 January 2004, available at http://ec.europa.eu/comm/competition/speeches/index_2004.html.

Moore K. (2001): "Are District Court Judges Equipped to Resolve Patent Cases?" (2001) 15 *Harvard Journal of Law and Technology* 38.

Moore K. (2005): "Worthless Patents", 20 *Berkley Technology Law Journal* 1521.

Moore R. and Vedova H. (2004): "The Road to *Genzyme*: A Look at Competition in Innovation Cases at the Federal Trade Commission", 5 *The Intellectual Property Committee Newsletter* 6.

Motta M. (2004): *Competition Policy, Theory and Practice*, Cambridge University Press, Cambridge.

Mullainathan S. and Thaler R. H. (2000): *Behavior Economics*, MIT Department of Economics Working Paper No. 00-27, text available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=245733.

Narin F. and Olivastro D. (1991): "Status Report: Linkage Between Technology and Science", 21 *Research Policy* 237.

Naughton M. and Wolfram R. (2004): "The Antitrust Risks of Unilateral Conduct in Standard Setting, in the Light of the FTC's Case Against Rambus Inc.", 49 *Antitrust Bulletin* 699.

Nelkin D. and Lindee M. (1975): *The DNA Mystique: The Gene as a Cultural Icon*, Freeman and Co., New York.

Neumeyer F. (1932): *Patentgemeinschaften und deren Aufbau bei amerikanischen Industrieverbänden*, Ltwelt, Marburg.

Newberg J. (2002): "Antitrust, Patent Pools, and the Management of Uncertainty", in "DOJ/FTC, *Hearings on Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy*, February 6, 2002 (available at http://www.usdoj.gov/atr/public/speeches).

Nickell S. (1996): "Competition and Corporate Performance", 104 *Journal of Political Economy* 724.

Nickell S., Nicolitsas D. and Dryden N. (1997): "What Makes Firms Perform Well?", 41 *European Economic Review* 783.

Nihoul P. (2006): "The Opposition between Competition and Regulation—Some Nuances", in Ullrich H., ed., *The Evolution of European Competition Law*, Chelterham, London.

O'Donoghue T., Scotchmer S. and Thisse J.-F. (1995): *Patent Breadth, Patent Life, and the Pace of Technological Progress*, IBER Working Paper No. 95–242.

Ohana G., Hansen M. and Sha O. (2003): "Disclosure and Negotiation of Licensing Terms Prior to Adoption of Industry Standards: Preventing Another Patent Ambush?", 24 *European Competition Law Review* 644.

O'Rourke M. (2000): "Toward A Doctrine of Fair Use in Patent Law", 100 *Columbia Law Review* 1177.

Orstavik I. (2005): "Technology Transfer Agreements: Grant-Backs and No-Challenge Clauses in the New EC Technology Transfer Regulation", 36 *IIC* 83.

Osti C. (2004): *Nuovi obblighi a contrarre*, Giappichelli Ed., Torino.

Pasche M. and von Engelhardt S. (2004): "Volkswirtschaftliche Aspekte der Open-Source-Softwareentwicklung", 18 *Jenaer Schriften zur Wirtschaftswissenschaft*, 25-.

Patterson J. (2006): "Revision of the New Technology Transfer Block Exemption Regulation: Convergence or Capitulation?" in Ullrich H., ed., *The Evolution of European Competition Law*, Chelterham, London.

Patterson M. R. (2002): "Inventions, Industry Standards, and Intellectual Property", *Berkeley Technology Law Journal* 17.

Pealtsikas C. and Teece C. (2001); "The Analysis of Market Definitino and Market Power in the Context of Rapid Innovation", 19 *International Journal of Industrial Organization* 665.

Peeperkorn L. (2003): "IP Licenses and Competition Rules: Striking the Right Balance", 26 *World Competition* 527.

Peritz R. (2002):"Dynamic Efficiency and US Antitrust Policy", in Cucinotta A., Pardolesi R. and van den Bergh R., eds., *Post-Chicago Developments in Antitrust Law*, Edward Elgar Publ., Cheltenham.

Pietzcke R. (1983): *Patentschutz, Wettbewerbsbeschränkungen und Konzentration im Recht der Vereinigten Staaten von Amerika*, Carl Heymanns Verlag, Cologne.

Pila J. (2005): "Dispute over the Meaning of "Invention" in Article 52 (2) EPC—The Patentability of Computer-Implemented Innovations in Europe", 36 *IIC* 173.

Pires de Carvalho N. (2004): "The Problem of Gene Patents", 3 *Washington University Global Studies Law Review* 701.

Pitofsky R. (2001): "Antitrust and Intellectual Property: Unresolved Issues at the Heart of the New Economy", *Berkeley Technology Law Journal* 535.

Pitofsky R. (2001): "Challenges of the New Economy: Issues at the Intersection of Antitrust and Intellectual Property", 69 *Antitrust Law Journal* 913.

Pitofsky R., Patterson D. and Hooks J. (2002): "The Essential Facility Doctrine under U.S. Antitrust Law", 70 *Antitrust Law Journal* 443.

Platt Majoras D. (2004): "Looking Forward: Merger and Other Policy Initiatives at the FTC", remarks before ABA Antitrust Section Fall Forum, (Nov. 18, 2004), available at http://www.ftc.gov/speeches/majoras/ 041118abafallforum.pdf.

Platt Majoras D. (2005): "Protecting Markets and Consumers in a High-Tech World", Address Before the Software Information Industry Alliance (February 1, 2005) at 4, available at http://www.ftc.gov/speeches/majoras/050201protectingmarkets.pdf.

Platt Majoras D. (2005): "Recent Actions at the Federal Trade Commission", remarks Before the Dallas Bar Association's Antitrust and Trade Regulation Section, January 18, 2005, available at http://www.ftc.gov/speeches/majoras/050126recentactions.pdf.

Platt Majoras D. (2005): "US Antitrust Practice —How Does It Affect European Business?", remarks before the Studienvereinigung Kartellrecht, Brussels, Belgium (April 7, 2005), at 10, available at http://www.ftc.gov/speeches/majoras/050411brussels.pdf.

Polley R. (2004): "Softwareverträge und ihre Kartellrechtliche Wirksamkeit", 20 *Computer und Recht* 641.

Porter M. (1990): *The Competitive Advantage of Nations*, Free Press, New York.

Posner R. (2001): "Antitrust in the New Economy", 68 *Antitrust Law Journal* 925.

Posner R. (2005): "Transaction Costs and Antitrust Concerns in the Licensing of Intellectual Property", *Les Nouvelles*, March, 1, 2005.

Prahl K. (1971): *Patentschutz und Wettbewerb*, Vandenhoeck & Ruprecht, Göttingen.

Rai A. (2001): "Fostering Cumulative Innovation in the Biopharmaceutical Industry: The Role of Patents and Antitrust", 16 *Berkeley Technology Law Journal* 813.

Rapp R. (2004): "Innovation Market Analysis After *Genzyme-Novazyme*", Address Before the Federal Trade Commission-Department of Justice Workshop on Merger Enforcement (February 18, 2004), available at http://www.ftc.gov/bc/mergerenforce/presentations/040218rapp.pdf.

Rehbinder E. (2004): "Zum Verhältnis zwischen nationalem und EG-Kartellrecht nach der VO Nr. 1/2003", in Fuchs A., *Wirtschafts- und Privatrecht im Spannungsfeld von Privatautonomie, Wettbewerb und Regulierung*, Munich.

Reichman J. (2000): "Of Green Tulips and Legal Kudzu: Repackaging Rights in Subpatentable Innovation", *Vanderbilt Law Review* 1743.

Reichman J. (2003): "Saving the Patent System from Itself: Informal Remarks Concerning the Systemic Problems Afflicting Developed Intellectual Property Regimes", in Kieff F. S., ed., *Perspectives on Properties of the Human Genome Project*, Elsevier Academic Press, Oxford, 289-.

Reichman J. and Franklin J. (1999): "Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contract With Public Good Uses of Information", 147 *University of Pennsylvania Law Review* 875.

Reichman J. and Uhlir P. (2003): "A Contractually Reconstructed Research Commons for Scientific Data in a Highly Protectionist Intellectual Property Environment", 66 *Law and Contemporary Problems* 315.

Rey P. and Tirole J. (2005): "A Primer on Foreclosure", in Armstrong M. and Porter R., *Handbook of Industrial Organization*, vol. III, Elsevier, New York.

Ridyard D. (2004): "Compulsory Access Under EC Competition Law—A New Doctrine of 'Convenient Facilities' and the Case for Price Regulation", 25 *European Competition Law Review* 669.

Riordan B. (2000): "What is Driving Patent and Trade Mark Application Filings?", 22 *European Intellectual Property Review* 349.

Ritter C. (2004): "The New Technology Transfer Block Exemption under EC Competition Law", 31 *Legal Issues of European Integration* 161.

Ritter C. (2005): "Refusals to Deal and Essential Facilities: Does Intellectual Property Require Special Deference Compared to Tangible Property", 28 *World Competition* 281.

Ritter L., Braun W. and Rawlinson F. (2004): *European Competition Law: A Practioner's Guide*, 3rd edition, Kluwer, The Hague.

Rodger A. (1972): *Owners and Neighbours in Roman Law*, Clarendon Press, Oxford.

Rommer P. (2002): "When Should We Use Intellectual Property Rights", 92 *The American Economic Review* 213.

Roth W.-H. (2006): "Strategic Competition Policy: A Comment on EU Competition Policy", in Ullrich H., ed., *The Evolution of European Competition Law*, Chelterham, London.

Sampson T. (2004): "Madey-Integra and the Wealth of Nations", *European Intellectual Property Review* 1.

Samuelson P., Davis R., Kapor M. and Reichman J. (1994): "A Manifesto Concerning the Legal Protection of Computer Programs", 94 *Columbia Law Review* 2308.

Schalk H.-J. and Täger U. (1999): *Wissenverbreitung und Diffusionsdynamik im Spannungsfeld zwischen innovierenden und imitierenden Unternehmen,* Munich, 109-.

Schallop M. (2000): "The IPR Paradox: Leveraging Intellectual Property Rights to Encourage Interoperability in the Network Computing Age", 28 *AIPLA Quarterly Journal* 195.

Schepel H. (2004): *The Constitution of Private Goverance—Product Standards in the Regulation of Integrating Markets,* Hart Publishing, Oxford and Portland, Oregon.

Scherer F. (2001): "The Innovation Lottery", in Dreyfuss R., Zimmerman D. and First H., eds., *Expanding the Boundaries of Intellectual Property*, Oxford University Press, Oxford, 3-.

Scherer F. (2002): "The Economics of Human Gene Patents", 77 *Academic Medicine* 1348.

Scherer F. and Ross D. (1990): *Industrial Market Structure and Economic Performance,* 3rd edition, Houghton-Mifflin, Boston.

Scherer M. (1967): "Market Structure and the Employment of Scientists and Engineers", 57 *American Economic Review* 524.

Schulte H.-J. (1971): *Lizenzaustauschverträge und Patentgemeinschaften im amerikanischen und deutschen Recht*, Athenäum Verlag, Frankfurt.

Schultze J.-M., Pautke S. and Wagener D. (2004): "Die neue Technologietransfer-Gruppenfreistellungsverordnung der Europäischen Kommission—Mission Completed", 15 *Europaisches wirtschafts und steuerrecht* 437.

Schulze M. (2003): "Patent-Portfoliomanagement in der Siemens AG", 3 *VPP-Rundbrief* 77.

Schumacher V. and Schmid C. (2006): "Die patenrechtliche Zulässigkeit der Benutzung von Forschungswerkzeugen", *GRUR Int* 6.

Schumpeter J. (1942): *Capitalism, Socialism and Democracy*, 1st edition, Rutledge, London.

Schumpeter J. (1962): *Capitalism, Socialism, and Democracy*, 3rd edition, Harper, New York.

Scotchmer S. (1996): "Protecting Early Innovators: Should Second-Generation Products Be Patentable?", 27 *RAND Journal of Economics* 322.

Scotchmer S. (2004): *Innovation and Incentives*, Cambridge, Massachussets.

Sevilla C. *et al.* (2003): "Impact of Gene Patents on the Cost-Effective Delivery of Care: The Case of BRCA1 Genetic Testing", 19 *International Journal of Technology Assessment in Health Care* 287.

Shapiro C. (2001): "Navigating the Patent Thicket: Cross Licenses, Patent Pools and Standard-Setting" in Jaffe A., Lerner J. and Stern S., *Innovation Policy and the Economy*, Cambridge University Press, Cambridge (also available at http://haas.berkeley.edu/shapiro/thicket.pdf).

Shapiro C. (2003): "Antitrust Limits to Patent Settlements", 34 *RAND Journal of Economics* 357.

Shapiro C. and Katz M. (1999): "Antitrust in Software Markets" (1999) in Eisenach and Lenard, eds., *Competition, Innovation and the Microsoft Monopoly: Antitrust in the Digital Market Place*, Kluwer Academic Publ., Boston, 30-.

Skitol R. and Wu L. (2005): "A Transatlantic Swim Through Patent Pools: Keeping Antitrust Sharks at Bay", in Lugard P. and Hancher L., eds., *On the Merits: Current Issues in Competition Law and Policy. Liber Amicorum Peter Plompen,* Intersentia, Brussels, 103-.

Smith A. (1762): *Lectures on Jurisprudence*, Oxford.

Smith A. (1776): *The Wealth of Nations*, Clarendon Press, Oxford.

Solow R. (1957): "Technical Change and the Aggregate Production Function", 39 *Review of Economics and Statistics* 312.

Strohm G. (1971): *Wettbewerbsbeschränkungen in Patentlizenzverträgen,* Carl Heymanns Verlag, Cologne.

Stumpf H. and Groß M. (2005): *Der Lizenzvertrag*, 8th edition, Auflage, Heidelberg.

Sufrin B. (2004): "The *IMS* Case", 3 *Competition Law Journal* 21.

Takigawa T. (2005): "A Comparative Analysis of U.S., EU, and Japanese Microsoft Cases: How to Regulate Exclusionary Conduct by a Dominant Firm in a Network Industry", 50 *Antitrust Bulletin* 237.

Teece D. and Coleman M. (1998): "The Meaning of Monopoly: Antitrust Analysis in High Technology Industries", 43 *Antitrust Bulletin* 801.

Temple Lang J. (1994): "Defining Legitimate Competition: Companies' Duties to Supply Competitors and Access to Essential Facilities", 18 *Fordham International Law Journal* 437.

Temple Lang J. (1998): "Media, Multimedia and the European Community Antitrust Law", 21 *Fordham International Law Journal* 1296.

Temple Lang J. (2004): "Anticompetitive Non-Pricing Abuses under European and National Antitrust Law", in Hawk B. , ed., *International Antitrust Law and Policy 2003*, Annual Proceedings of the Fordham Corporate Law Institute, Juris Publ., New York, 303-.

Temple Lang J. (2004): "European Community Competition Policy—How Far Does It Benefit Consumers?", 18 *Boletín Latinoamericano de competencia* 128.

Temple Lang J. (2004): "Mandating Access: The Principles and Problems in Intellectual Property and Competition Policy", 15 *European Business Law Review* 1087.

Tesauro G. (2002):"The Essential Facility Doctrine: Latest Developments in EC Competition Law" (2002) in Hellenic Competition Committee, ed., *EU Competition Law and Policy, Developments and Priorities*, Athens Conference, April 19th 2002 (Athens, 2002).

Thyri P. (2005): "Immaterialgüterrechte und Zugang zur wesentlichen Einrichtund: Der Fall *Microsof*t im Licht von *IMS-Health*", 55 *Wirtschaft und Wettbewerb* 388.

Tirole J. (1988): *The Theory of Industrial Organisation*, MIT Press, Massachussets.

Treacy P. and Heide T. (2004): "The New EC Technology Transfer Block Exemption Regulation", 26 *European Intellectual Property Review* 414.

Trebilcock M., Winter R., Collins P. and Iacobucci E. (2002): *The Law and Economics of Canadian Competition Policy*, University of Toronto Press, Toronto.

Tsilas N. (2004): "Toward Greater Clarity and Consistency in Patent Disclosure Policies in a Post-Rambus World", 17 *Harvard Journal of Law and Technology* 475.

Tuma P. (2006): "Pitfalls and Challenges of the EC Directive on the Collective Management of Copyright and Related Rights", 28 *European Intellectual Property Review* 220.

Ullrich H. (1988): *Kooperative Forschung und Kartellrecht*, Verlag Recht und Wirtschaft, Heidelberg.

Ullrich H. (1993): „Auslegung und Ergänzung der Schutzrechtsregeln gemeinsamer Forschung und Entwicklung", *GRUR* 338.

Ullrich H. (1994): "Rules on Ownership and Allocation of Intellectual Property in R and D Collaboration Between Science and Industry", in Max-Planck-Gesellschaft, ed., *European Research Structures—Changes and Challenges: The Role and Function of Intellectual Property Rights*, Munich.

Ullrich H. (1996): "Lizenzkartellrecht auf dem Weg zur Mitte", *GRUR Int* 554.

Ullrich H. (1997): "Gewerblicher Rechtsschutz und Urheberrecht im Gemeinsamen Markt", in Immenga U. and Mestmäcker E.-J., eds., *EG-Wettbewerbsrecht, Kommentar*, Vol. I, C.H. Beck, Munich, 1101-.

Ullrich H. (1999): "Antitrust Law Relating to High Technology Industries—A Case for or against International Rules?", in Zäch R., ed. (1999): *Towards WTO Competition Rules*, Staempfli, Berne.

Ullrich H. (1999): “International Exhaustion of Intellectual Property Rights: Lessons from European Economic Integration”, in *Mélanges en hommage à Michel Waelbroeck*, Bruylant, Brussels.

Ullrich H. (2001): “Intellectual Property, Access to Information, and Antitrust: Harmony, Disharmony and International Harmonization”, in Dreyfuss R., Zimmerman D. and First H., eds., Expanding the Boundaries of Intellectual Property, Oxford University Press, Oxford.

Ullrich H. (2003): “Competitor Cooperation and the Evolution of Competition Law: Issues for Research in a Perspective of Globalization”, in Drexl J., ed., *The Future of Transnational Antitrust Law*, Staempfli/Kluwer, Berne and The Hague.

Ullrich H. (2003): “Legal Protection of Innovative Technologies: Property or Policy?”, in Granstrand O., ed., *Economics, Law, and Intellectual Property*, Kluwer Academic, Boston.

Ullrich H. (2004): “Patentgemeinschaften”, in *Festschrift für Ullrich Immenga*, Munich.

Ullrich H. (2004): “Expansionist Intellectual Property Protection and Reductionist Competition Rules: A TRIPs Perspective”, 7 *Journal of International Economic Law* 401 (also published in Maskus K. and Reichman J., eds. (2005): *International Public Goods and Transfer of Technology Under a Globalized Intellectual Property Regime*, Cambridge University Press, New York.)

Ullrich H. (2004): “Harmony and Unity of European Intellectual Property Protection”, in Vaver D. and Bently L., eds. (2004): *Intellectual Property in the New Millennium*, Cambridge University Press, New York.

Ullrich H. (2004): “Patentgemeinschaften”, in Fuchs A. *et al*, eds., *Festschrift für Ullrich Immenga*, C.-H. Beck, Munich.

Ullrich H. (2004): „Die gemeinschaftsrechtliche Entwicklung des Rechts des Geistigen Eigentums“, in Behrens P., ed., *Stand und Perspektiven des Schutzes geistigen Eigentums in Europa*, Nomos, Baden-Baden.

Ullrich H., ed. (2006): *The Evolution of European Competition Law*, Cheltenham, London.

Ungerer H. (2003): “Application of Competition Law to Rights Management in the Music Market—Some Orientations”, speech delivered on the 11th of June 2003, text available at http://ec.europa.eu/comm/competition/speeches/text/ sp2003_018_en.pdf

Ungerer H. (2004): “European music cultures and the role of copyright organisation—competition aspects”, address to the European Music Cultures—Sound or Silence Conference, The Hague, 5 May 2004.

Van Bael I. and Bellis J.-F. (2005): *Competition Law of the European Community*, 4th edition, Kluwer Law International, The Hague.

Van Overwalle G., Van Zimmeren B., Verbeure B. and Matthijs E. (2006): “Models for Facilitating Access to Patents on Genetic Inventions”, 7 *Nature Reviews/Genetics* 143.

Van Zimmeren B., Verbeure B., Matthijs E. and Van Overwalle G. (2006): “A Clearing House for Diagnostic Testing: The Solution to Ensure Access To and Use of Patented Genetic Inventions?”, 84 *Bullettin WHO* 352.

Vaver D. (1997): *Intellectual Property Law—Copyright, Patents, Trade-Marks*, Irwin Law, Toronto.

Verbeure B., Van Zimmeren B., Matthijs E. and Van Overwalle G. (2006): “Patent Pools and Diagnostic Testing”, 24 *Trends in Biotechnology* 115.

Verbruggen J. and Lorincz A. (2002): "Patents and Technical Standards", 33 *IIC* 125.

Vezzoso S. (2006): "The Incentives Balance Test in the EU Microsoft Case: A More "Economics-Based" Approach", 27 *European Competition Law Review* 382.

Vinje T. (1995): "Harmonising Intellectual Property Laws in European Union: Past, Present and Future", 17 *European Intellectual Property Review* 366.

Völcker S. (2004): "Developments in EC Competition Law in 2003: An Overview", 41 *Common Market Law Review* 1057.

Von Staudinger J. (2003) *Kommentar zum BGB*, 13th ed., Neuberarbeitung, Berlin.

Von Steindorff E. (1959): *Zweckmäßigkeit im Wettbewerbsrecht*, Klostermann, Frankfurt.

Vorndran C. and Florence R. (2002): "Bioinformatics: Patenting the Bridge Between Information Technology and the Life Sciences", 42 *IDEA: The Journal of Law and Technology* 93.

Wainwright R. and Castillo de la Torre F. (2003): "IP Transactions and Infringements of Articles 81 and 82—New Developments in EU Law" paper presented at the 2nd Conference on Competition Law and IP Related Aspects, OHIM Alicante, 14 March 2003.

Wallman S. (1998): "Competition, Innovation, and Regulation in the Securities Markets", 53 *The Business Lawyer* 348.

Walsh J., Arora A. and Cohen W. (2003): "Effects of Research Tool Patents and Licensing on Biomedical Innovation", in Cohen W. and Merrill S., eds., *Patents in the Knowledge Based Economy*, National Academies Press, Washington DC, 285-.

Werden G. (1987): "The Law and Economics of the Essential Facility Doctrine", *St. Louis University Law Journal* 433.

West J. (2005): *Intellectual Property Rights and Competition Policy with a Focus on Biotechnology*, OECD Best Practice Roundtables in Competition Policy, Working Paper No. 50, available from http://ssrn.com/abstract=681195.

Whish R. (2003): *Competition Law*, 5th edition.

Wissel H. and Eickhoff J. (2004): "Die neue EG-Gruppenfreistellungsverordnung für Technologietransfer-Vereinbahrungen", *Wirtschafts und Wettbeverb* 1244.

Wolfram M. (2003*): "Reach-Through Claims" and "Reach Through Licensing"—Wie weit kann der Patentschutz auf biotechnologische Research Tools reichen?*, Carl Heymanns Verlag, Cologne.

Wood D. (2001): "Collective Management and EU Competition Law", speech delivered at the Vth SGAE Conference on Intellectual Property, Competition and Collective Management, Madrid 12–14 November 2001, text available at http://ec.europa.eu/comm/competition/speeches/text/ sp2001_025_en.pdf.

Yao D. and DeSanti S. (1993): "Innovation Issues Under the 1992 Merger Guidelines", 61 *Antitrust Law Journal* 505.

Zimmerman D. (2005): "It's an Original!(?): In Pursuit of Copyright's Elusive Essence", 28 *Columbia Journal of Law and the Arts* 187.

Zöttl J. (2005): "Das neue EG-Kartellrecht für Technologietransferverträge", *Wettbewerb in Recht und Praxis* 33.

B. Official reports, legislation, etc.:

Berne Convention for the Protection of Literary and Artistic Works of 1886, text available at http://www.wipo.int/treaties/en/ip/berne/trtdocs_wo001.html.

Canadian Competition Bureau (2000): *Industry Canada* 2000, http://strategis.ic.gc.ca/pics/ct/ipege.pdf.

Canadian Competition Bureau (2001): *Enforcement Guidelines on the Abuse of Dominance Provisions*), http://strategis.ic.gc.ca/pics/ct/aod.pdf.

Commission Consultation on "Future Patent Policy in Europe", Preliminary Findings: Issues for Debate, text available at http://ec.europa.eu/internal_market/indprop/docs/patent/hearing/preliminary_findings_en.pdf .

Commission Guidelines on the application of Article 81(3) of the EC Treaty, OJ C 101 [2004].

Commission Guidelines on the application of Article 81 of the EC Treaty to technology transfer agreements, OJ C 101 [2004].

Commission Guidelines on the application of Article 81 of the Treaty to horizontal cooperation agreements, OJ C 3 [2001].

Commission Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentration between undertakings, OJ C 31 [2004].

Commission Notice of December 18, 1978 on the evaluation of sub-contracting agreements under Article 85(1) of the Treaty, OJ C 1 [1979].

Commission Notice of December 24 1962 on patent licensing agreements, OJ L 219 [1984].

Commission Notice on remedies acceptable under Council Regulation EEC No 4064/89 and under Commission Regulation (EC) No 447/98, OJ C 68 [2001].

Commission Notice on the appraisal of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (December 11, 2002), available at http://europa.eu.int/comm/competition/mergers/review/final_draft_en.pdf.

Commission Proposal for a Community patent regulation, OJ C 337 [2000].

Commission Recommendation of 18 October 2005 on collective cross-border management of copyright and related rights for legitimate online music services, OJ L 276 [2005].

Commission Regulation (EC) No 240/96 of 31 January 1996 on the application of Article 85 (3) of the Treaty to certain categories of technology transfer agreements, OJ L 31 [1996].

Commission Regulation (EC) No 2658/2000 on the application of Article 81(3) of the Treaty to categories of specialisation agreements, OJ L 304 [2000].

Commission Regulation (EC) No 2659/2000 of 29 November 2000 on the application of Article 81(3) of the Treaty to categories of research and development agreements, OJ L 304 [2000].

Commission Regulation (EC) No 2790/1999 on the application of Article 81(3) of the Treaty to categories of vertical agreements and concerted practices, OJ L 336 [1999].

Commission Regulation (EC) No 772/2004 of 27 April 2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements, OJ L 123 [2004].

Commission Regulation 2349/84 on patent license agreements, OJ L 219 [1984], *as amended,* OJ L 113 [1985].

Commission Regulation 240/96 on the application of Article 85(3) EEC (now 81(3) EC) to categories of technology transfer agreements, OJ L 31 [1996].

Commission Regulation 2790/1999 on the application of Article 81(3) of the Treaty to categories of vertical agreements, OJ L 336 [1999].

Commission Regulation 556/89 on know-how licensing agreements (OJ L 61 [1989].

Commission Staff Discussion Paper on Article 82 EC, available at http://ec.europa.eu/comm/competition/antitrust/others/discpaper2005.pdf.

Commission Staff Working Document, *Impact Assessment Reforming Cross-Border Collective Management of Copyright and Related Rights for Legitimate Online Music Services*, October 2005, SEC (2005) 1254.

Commission Staff Working Document, *Study on a Community Initiative on the Cross Border Collective Management of Copyright*, July 2005 (available at http://europa.eu.int/comm/internal_market/copyright/docs/management/study_collectivemgmt_en.pdf).

Commission Staff Working Paper, *Possible Abuses of Trademark Rights Within the EU in the Context of Exhaustion*, May 21, 2003, SEC (2003) 575.

Copyright Law Review Committee (2000): *Jurisdiction and Procedures of the Copyright Tribunal*, Final Report, Commonwealth, Australia.

Council Directive 2000/52/EC of 26 July 2000 amending Directive 80/723/EEC on the transparency of financial relations between Member States and public undertakings, OJ L 193 [2000].

Council Directive 87/54/EEC of 16 December 1986 on the legal protection of topographies of semiconductor products, OJ L 24 [1987].

Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs, OJ L 122 [1991].

Council Directive 93/98/EEC of 29 October 1993 harmonizing the term of protection of copyright and certain related rights, OJ L 290 [1993].

Council Regulation 1768/92/EEC of 18 June 1992 concerning the creation of a supplementary protection certificate for medicinal products, OJ L 182 [1992].

Council Regulation 2100/94/EC on Community Plant Variety Protection, OJ L 131 [1996].

Council Regulation 40/94/EC on the Community mark, OJ L 11 [1994].

Council Regulation 6/2002/EC on the Community design, OJ L 3 [2002], *corrigendum* OJ L 179 [2002].

Council Regulation No 19/65/7EEC on the application of Article 81(3) of the Treaty to certain categories of agreements and concerted practices, as amended by Council Regulation (EC) No 1215/1999, OJ L 148 [1999].

Deutsches Patent- und Markenamt (2005): *Jahresbericht 2004*, available at http://www.dpma.de/veroeffentlichungen/jahresbericht04/dpma_jb_2004.pdf.

Directive 2001/29/EC of the European Parliament and the Council on the harmonisation of certain aspects of copyright and related rights in the Information Society, OJ L 167 [2001].

Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights, OJ L 195 [2004].

Directive 91/250/EEC on the legal protection of computer programs, OJ L 122 [1991].

Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases, OJ L 77 [1996].

Directive 98/44/EC of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions, OJ L 213 [1998].

Directive 98/71/EC of the European parliament and of the Council on the legal protection of designs, OJ L 289 [1998].

EPO (1996): *Annual Report 1995*, Munich.

EPO (2000): *Annual Report 1999*, Munich.

EPO (2003): *Annual Report 2002*, Munich.

EPO (2004): *Annual Report 2003*, Munich.

EPO, *Annual Report 2005*, Munich.

ETSI (2005): *ETSI Intellectual Property Rights Policy,* available at www.etsi.org/legal/ipr_a.htm.

ETSI (2005): *Guide on Intellectual Property Rights*, *Annex A: ETSI Intellectual Property Rights Policy*, available at www.etsi.org/legal/ETSI_Guide_on_IPRs_a.htm.

ETSI (2005): *The ETSI-Guide on IPRs*, available at www.etsi.org/legal/ETSI_Guide_on_IPRs_a.htm.

European Commission (1981): *11th Report on Competition Policy*, Brussels.

European Commission (1984): *14th Annual Report on Competition* Po*licy*, Brussels.

European Commission (1985): *15th Annual Report on Competition Policy*, Brussels.

European Commission (1989): *18th Report on Competition Policy*, Brussels.

European Commission (1994): *24th Annual Report on Competition Policy*, Brussels.

European Commission (1995): *25th Annual Report on Competition Policy*, Brussels.

European Commission (2000): *Report from the Commission to the Council, the European Parliament and the Economic and Social Committee on the implementation and effects of Directive 91/250/EEC on the legal protection of computer programs*, COM (2000) 199 final, available from: http://europa.eu.int/eurlex/lex/LexUriServ/site/en/com/2000/com2000_0199en01.pdf.

European Commission (2001): *Technology transfer agreements under Article 81: Evaluation report on the transfer of technology block exemption regulation No. 240/96*, available at http://europa.eu.int/comm/competition/antitrust/technology_transfer/en.pdf.

European Commission (2003): *Communication on investing in research: An action plan for Europe*, COM(2003) 226 final/2, available from: http://europa.eu.int/eur-lex/en/com/cnc/2003/com2003_0226en02.pdf.

European Commission (2003)*: Investing in Research: an Action Plan for Europe*, Staff Working Paper, SEC(2003) 489, Brussels, available from http://europa.eu.int/comm/research/era/3pct/pdf/com2003-annex.pdf.

European Commission (2004): *Communication from the Commission to the Council, The European Parliament and the European Economic and Social Committee: The Management of Copyrights and Neighbouring Rights in the Internal Market*, Brussels, 16 April 2004, COM(2004) 261 final.

European Commission (2004): *Patenting DNA Sequences (Polynucleotides) and Scope of Protection in the European Union: An Evaluation,* Directorate-General Research, Directorate E, Brussels.

European Commission (2004): *Proposal for a Directive of the European Parliament and the Council amending Directive 98/71/EC on the legal protection of designs*, COM (2004) 582 final of September 9, 2004.

European Commission (2004): *The management of copyright and related rights in the Internal Market,* COM (2004) 261 final.

European Commission (2005): *Study on a Community initiative on the cross-border collecting management of copyright*, Staff Working Document of 7 July 2005, available at http://www.europa.eu.int/comm/internal_market/copyright/docs/management/study-collectivemgmt_en.pdf.

European Parliament (2002): *Resolution on a Community framework for collective management societies in the field of copyrights and neighbouring rights*, (2002/2274) (INI), OJ C 92 E [2002].

European Parliament and Council Directive 98/44/EC on the legal protection of biotechnology inventions, OJ L 213 [1998].

FTC (1995): *Overview of FTC antitrust actions in healthcare services and products*, available at http://www.ftc.gov/bc/050802antitrustpharmprods.pdf.

FTC (1996): *Anticipating the 21st Century: Competition policy in the high-tech, global marketplace*, Staff Report, available at http://www.ftc.gov/opp/global/report/gc_v1.pdf.

FTC (2003): *To Promote Innovation—The Proper Balance of Competition and Patent Law and Policy*, Washington DC.

FTC (2003): *To promote innovation: The proper balance of competition and patent law and Policy*, available from: http://www.ftc.gov/os/2003/10/innovationrpt.pdf.

Human Genome Management Information System (HGMIS) (2004): *About the Human Genome Project*, available from http://www.ornl.gov/sci/ techresources/Human_Genome/project/about.shtml.

Human Genome Management Information System (HGMIS) (2004): *SNP Fact Sheet*, available from http://www.ornl.gov/ sci/techresources/Human_Genome/faq/snps.shtml.

Ifo-Institut für Wirtschaftsforschung (1974): *Patentwesen und technischer Fortschritt*, Teil I, Göttingen.

Intellectual Property and Competition Review Committee (2000): *Review of Intellectual Property Legislation under the Competition Principles Agreement*, Final Report, Commonwealth, Australia.

Monopolies and Mergers Commission (2006): *Performing Rights,* London.

Monopolkommission (1978): *Hauptgutachten 1976/1977*, Nomos, Baden-Baden.

Monopolkommission (1990): *Hauptgutachten 1988/1989*, Nomos, Baden-Baden.

Monopolkommission (1992): *Hauptgutachten 1990/1991,* Nomos, Baden-Baden.

Monopolkommission (1999): *Hauptgutachten 1988/89*, Nomos, Baden-Baden.

National Academy of Sciences (2004): *A Patent System for the 21st Century*, available at http://books.nap.edu/catalog/10976.html.

OECD (2000): "Competition Policy and Intellectual Property Rights", 2 *OECD Journal of Competition Law and Policy* 123.

OECD (2004): *Patents and Innovation: Trends and Policy Challenge*s, Paris.

OECD (2005): *Compendium of Patent Statistics 2005*, Paris.

OFT (2002): *E-Commerce and its Implications for Competition Policy*, Discussion Paper 1.

OHIM (2006): *Annual Report 2005*, Alicante.

Paris Convention for the Protection of Industrial Property of 1883 (full text available at http://www.wipo.int/treaties/en/ip/paris/trtdocs_wo020.html).

Prices Surveillance Authority (1989): *Book Prices*, Reports No. 24 and 25.

Prices Surveillance Authority (1990): *The Prices of Sound Recordings*, Report No.35.

Prices Surveillance Authority (1992): *Prices of Computer Software,* Reports No. 44 and 46.

Teknologi-Radet (2005): *Recommendation for the Patent System of the Future*, Copenhagen.

US Department of Justice (19995): *Antitrust Enforcement Guidelines for International Operations,* available at http://www.usdoj.gov/atr/public/guidelines/internat.htm.

US Department of Justice and FTC (1992): *Horizontal Merger Guidelines*, available from http://www.ftc.gov/bc/docs/horizmer.htm.

US Department of Justice and FTC (1995): *Antitrust Guidelines for the Licensing of Intellectual Property*, available from http://www.usdoj.gov/atr/ public/guidelines/ipguide.htm.

US Department of Justice and FTC (2002): *Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy*, available from http://www.ftc.gov/opp/intellect/index.htm.

USPTO (2000): *White Paper: Patent Pools—A Solution to the Problem of Access in Biotechnology Patents?*, Washington D.C.

WIPO (1998): *Intellectual Property Reading Material*, Geneva.

WIPO (2002): *Intellectual Property on the Internet: A Survey of Issues*, Geneva, available on http://www.wipo.int/copyright/ecommerceen/ip-survey.html.