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EU ENVIRONMENTAL LAW AND POLICY

David Langlet and Said Mahmoudi

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Preface

The state of the natural environment is a defining factor for human life and human societies. Humans are engaged in countless activities which directly or indirectly affect the natural environment. This is inevitable and has been the case since the dawn of the human species. However, the advancement of various technologies and the expansion of the economy have resulted in a situation where humans largely shape the natural environment around the globe. Whether we like it or not, we thereby define the conditions for countless future generations. Inevitably, this makes law and policy pertaining to the protection and management of the natural environment profoundly important.

The European Union has since the 1960s developed an ever more comprehensive body of legislation aimed at, or affecting, environmental protection. Today hundreds of important pieces of EU legislation pertain, more or less directly, to environmental protection and natural resources management. In addition to being a large and complex area of law and policy it is also a rapidly evolving one, not only through measures by the EU legislator but also through the case law of the Court of Justice. However, understanding EU law pertaining to the environment, and the related case law, requires an understanding also of the wider EU law and policy framework within which the environmental legislation operates.

Against this backdrop, the present book aims, in its first part, to provide the reader with sufficient understanding of the institutional, constitutional, and historical premises for the adoption and application of secondary EU environmental law and the dynamics that apply between Member States and the Union in this context.

The second part is dedicated to the secondary EU environmental law. It is divided into thematic chapters dealing with topics such as climate and energy, water, and biological diversity.

The book is intended to be a comprehensive yet accessible guide to EU environmental policy. It also continuously directs the reader to primary sources and to other commentators who deal with specific topics in more depth or detail.

Our hope is that it will be useful to a broad category of students at various levels, both students of law and those of transdisciplinary subjects or of subjects that otherwise make an understanding of EU environmental law important. Practitioners and scholars, as well as those affected by or otherwise wanting to understand or participate in environmental law and policy processes, should also find it a useful guide to a rich and partly bewildering field of law and policy.

David Langlet and Said Mahmoudi

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List of Abbreviations

AFS	Anti-fouling Systems
BAT	Best Available Techniques
BCH	Biosafety Clearing-House
BREFs	BAT Reference Documents
CAP	Common Agricultural Policy
CBD	Convention on Biological Diversity
CCP	Common Commercial Policy
CCS	Carbon Capture and Storage
CDM	Clean Development Mechanism
CF	Cohesion Fund
CFCs	Chlorofluorocarbons
CFP	Common Fisheries Policy
CfS	Candidate for Substitution
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CLP	Classification, Labelling and Packaging
CLRTAP	Convention on Long-range Transboundary Air Pollution
CMR	Carcinogenic, Mutagenic or Toxic for Reproduction
DG	Directorate-General
DG AGRI	Directorate-General for Agriculture and Rural Development
DG CLIMA	Directorate-General for Climate Action
DG ENVI	Directorate-General for the Environment
DG MARE	Directorate-General for Maritime Affairs and Fisheries
EA	Environmental Assessment
EAEC	European Atomic Energy Community
EAFRD	European Agricultural Fund for Rural Development
EC	European Community
ECESB	European Community Energy Star Board
ECHA	European Chemicals Agency
ECSC	European Coal and Steel Community
ECT	Treaty of European Community
EEA	European Economic Area
EEA	European Environmental Agency
EEAP	Energy Efficiency Action Plan
EEB	European Environmental Bureau
EEC	European Economic Community
EEE	Electrical and Electronic Equipment
EEZ	Exclusive Economic Zone
EFSA	European Food Safety Authority
EFTA	European Free Trade Association

EIA	Environmental Impact Assessment
EINECS	European Inventory of Existing Commercial Chemical Substances
EIONET	European Environment Information and Observation Network
ELD	Environmental Liability Directive
ELV	Emission Limit Values
EMAS	Eco-management and Audit Scheme
EMFF	European Maritime and Fisheries Fund
ENPE	European Network of Prosecutors for the Environment
EP	European Parliament
EQS	Environmental Quality Standards
ERDF	European Regional Development Fund
ESF	European Social Fund
ESI Funds	European Structural and Investment Funds
EMSA	European Maritime Safety Agency
ETS	Emission Trading Scheme
EU	European Union
EUEB	European Union Ecolabelling Board
EUFJE	EU Forum of Judges for the Environment
FDW	Framework Directive on Waste
FFP	Food or Feed or for Processing
FLEGT	Forest Law Enforcement, Governance and Trade
GDP	Gross Domestic Product
GES	Good Environmental Status
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
GMO	Genetically Modified Organism
HCFCs	Hydrochlorofluorocarbons
IAS	Invasive Alien Species
IBA	Important Bird Areas
ICAO	International Civil Aviation Organization
IED	Industrial Emissions Directive
ILM	International Legal Materials
ILO	International Labour Organization
IMO	International Maritime Organization
IMPEL	EU Network for the Implementation and Enforcement of Environmental Law
INSPIRE	Infrastructure for Spatial Information in the European Community
IPPC	Integrated Pollution Prevention and Control
JI	Joint Implementation
LIFE	Funding Programme for the Environment and Climate Action
MAPP	Major-accident Prevention Policy
MARPOL	International Convention for the Prevention of Pollution from Ships
MEA	Multilateral Environmental Agreement
MSFD	Marine Strategy Framework Directive
MSPFD	Maritime Spatial Planning Framework Directive

NAP	National Action Plan
NAP	National Allocation Plan
NDC	Nationally Determined Contribution
NEC	National Emission Ceilings
NGO	Non-governmental Organisation
ODS	Ozone Depleting Substances
OECD	Organisation for Economic Cooperation and Development
OJ	Official Journal
PAH	Polycyclic Aromatic Hydrocarbons
PBT	Persistent, Bioaccumulative and Toxic
PCB	Polychlorinated Biphenyls
PCT	Polychlorinated Terphenyls
PFOS	Perfluorooctanesulfonic Acid or Perfluorooctane Sulfonate
PIC	Prior Informed Consent
POP	Persistent Organic Pollutants
PPP	Plant Protection Product
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
SAC	Special Area of Conservation
SCI	Site of Community Importance
SEA	Strategic Environmental Assessment
SIEF	Substance Information Exchange Forum
SPA	Special Protection Area
SVHC	Substances of Very High Concern
TEU	Treaty on European Union
TFEU	Treaty on the Functioning of European Union
TFS	Tansfrontier Shipment of Waste
UK	United Kingdom
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNECE	United Nations Economic Commission for Europe
UNFCCC	United Nations Framework Convention on Climate Change
UNTS	United Nations Treaty Series
VOC	Volatile Organic Compound
vPvB	very Persistent and very Bioaccumulative
WEEE	Waste Electrical and Electronic Equipment
WFD	Water Framework Directive
WHO	World Health Organization
WTO	World Trade Organization

PART I

PRIMARY LAW, INSTITUTIONAL AND HISTORICAL PREMISES

1

The European Union and Its Structure

1.1 The Origin and Development of the European Union

Today's European Union (EU) has its origins in three distinct communities, all of which were formed during the 1950s. They were: the European Coal and Steel Community (ECSC), formed in 1951; the European Atomic Energy Community, or Euratom (EAEC); and the European Economic Community (EEC), both of the latter founded in 1957.

The first concrete proposal for closer economic cooperation between the States of Western Europe was presented by the French foreign minister Robert Schuman, who proposed the establishment of a common market for coal and steel products.[1] The proposal led to the adoption of the treaty that established the European Coal and Steel Community. This common market was created in 1952 by Belgium, France, Italy, Luxembourg, the Netherlands, and West Germany.

Several factors in the mid-1950s caused the ECSC members to pay more attention to a regional customs union. This resulted in a proposal for the establishment of a supranational organisation for nuclear energy (Euratom) and a common market that would cover a wide range of economic activities. The proposal came from the Belgian foreign minister Paul-Henri Spaak at a meeting of the ECSC Foreign Ministers in Messina, Italy in 1955.

On the basis of Spaak's proposal two draft treaties were prepared in 1956, one for Euratom and the other for the European Economic Community, the EEC. The final versions of the treaties were adopted in 1957 in Rome. The EEC Treaty is therefore known as the Treaty of Rome.[2]

To ensure uniformity in the three communities' institutional structure, two other conventions were adopted. The first was the 1957 Convention on Certain Institutions Common to the European Communities. This established the European Parliament, a court, and a joint economic and social committee.[3] The

[1] For a detailed account of the efforts during the 1940s and 1950s to establish the European Communities, see C Barnard and S Peers (eds) *European Union Law* (Oxford University Press, 2014) .

[2] For the texts of the founding treaties of the European Union, see 'Founding treaties' at EUR-Lex: <http://eur-lex.europa.eu/collection/eu-law/treaties-founding.html?locale=en> (visited 4 January 2016).

[3] Convention relative á certaines institutions communes aux Communautés Européennes (Rome, 25 Mars 1957) <http://eur-lex.europa.eu/legal-content/FR/TXT/PDF/?uri=CELEX:11957K/TXT&from=EN> (visited 4 January 2016).

second convention, adopted in 1965 and better known as the 'Merger Treaty', established a common council and a commission for the European Communities.[4]

Parallel to the increase in the number of Member States of the European Communities from six to twelve as a result of the membership of Denmark, Ireland, and the United Kingdom in 1973; Greece in 1981; and Portugal and Spain in 1986, the long-term aspirations for closer cooperation resulted in the adoption of the Single European Act in 1986.[5] This Act, which came into force on 1 July 1987, was intended to create an *internal market* that would replace the *common market* among Member States by 1 January 1993. To achieve this aim, the Act introduced a variety of changes in the three basic treaties establishing the ECSC, the Euratom, and the EEC, respectively. Additionally, the Single European Act formalised Community competence to enact laws in a number of new areas, including environmental protection. (On this, see further Chapter 4.)

The next major step in the efforts to create an 'ever closer union' among the European peoples was the adoption of the Treaty of the European Union[6] in Maastricht on 7 February 1992. This Treaty, which entered into force on 1 November 1993, created two new 'pillars', so that the new Union came to rest upon three 'pillars'. One consisted of the three existing communities, namely ECSC, EEC, and Euratom. The two new 'pillars' were not supranational and followed a more traditionally intergovernmental decision-making process. They regulated cooperation on foreign and security issues ('second pillar') and legal matters and home affairs issues ('third pillar'). Furthermore, the title European Economic Community (EEC) was formally changed to European Community (EC) to reflect that the Community was now to address far more than purely economic issues.[7] As a result, the EEC Treaty was renamed the EC Treaty by the Treaty of Maastricht. This reform also reinforced the decision-making role of the European Parliament in numerous areas of EC competence, and other issues became also subject to majority decisions in the Council, the body in which governments are represented.

In 1993 a formal division was made between the EC and the EU. Simply put, the EC denoted the dense and largely supranational cooperation built up around the internal market, whereas the EU included more inter-State cooperation over, inter alia, foreign policy and defence issues. 'EU' was also used to denote the geographical area that consists of the EC/EU Member States. This division, and the consequent terminological confusion, ended in December 2009. We return to this later.

The growing number of States in the Union, together with a desire for closer cooperation on common policy in new areas, led to several rounds of significant amendments to the EU Treaty (Treaty of Maastricht) and the EC Treaty. The first amendments were introduced by the Treaty of Amsterdam, signed in October 1997

[4] Traité Instituant un Conseil Unique et une Commission Unique des Communautés Européennes [1967] OJ 152/2.

[5] [1987] OJ L 169/1. [6] [1992] OJ C 191/1.

[7] Art G.A (1), Treaty of Maastricht. Even before this title was formalised, the expression 'European Community' was used in practice to denote the EEC. Sometimes it was used erroneously instead of 'European Communities'.

and in force from 1 May 1999.[8] This treaty led to significant substantive changes in the EU regulatory framework and policies. It also provided for a renumbering of most of the articles of the relevant Treaties.

The second round of amendments, specifically prompted by the anticipated expansion of EU membership from fifteen to twenty-seven, was made by the Treaty of Nice,[9] signed in February 2001, and entered into force on 1 February 2003. In addition to changes to the composition of the institutions and decision-making procedures, this Treaty resulted in the adoption of a legally non-binding EU Charter of Fundamental Rights.[10]

The Treaty establishing the European Coal and Steel Community was adopted for a period of fifty years and ceased to exist in July 2002. The coal and steel sectors then came to be governed entirely by the EC Treaty.

At a meeting of the European Council, consisting of the EC heads of State and Governments, in Laeken, Brussels, in 2001, questions concerning, among other things, distribution of powers and the institutional structure of the Union were addressed in the so-called Laeken Declaration.[11] It was also decided to convene a conference on the future of the Union. This conference consisted mainly of members of the European Parliament, national parliamentarians, and government representatives who primarily participated in their personal capacity. In July 2003 it put forward a proposal for a new treaty establishing a Constitution for Europe that would replace the EC and EU Treaties. After some amendments, the draft Constitution was adopted by the European Council in June 2004 and signed by all Member States.[12] However, agreement on a new treaty (in this case called the Constitution) and amendments to existing EU treaties must be ratified by all Member States to enter into force. When accession to the new Treaty was clearly rejected by the majority of people in referendums in France and the Netherlands, the ratification process practically stopped.

The idea of a new, cohesive European constitution was formally abandoned in 2007 in favour of an agreement on further amendments to the existing treaties. The result was the Treaty of Lisbon, adopted the same year.[13] After a fairly lengthy ratification process (which included two referendums in Ireland with some modifications of the text), the Treaty of Lisbon came into force on 1 December 2009. It does not replace the previous Treaties (EU Treaty and the EC Treaty), but lists many changes to their contents. Also, the former EC Treaty—originally the Treaty of Rome of 1957—was renamed the Treaty on the Functioning of the European Union (TFEU). This change signifies that the European Community had ceased to exist as a separate legal entity and that the two Treaties (the Treaty on European Union, or TEU, and the TFEU) thus regulate different aspects of the EU. Euratom continues as a separate legal entity.

[8] [1997] OJ C 340/1. [9] [2001] OJ C 80/1. [10] [2012] OJ C 326/391.
[11] European Council (Laeken) (14–15 December 2001) Conclusions of the Presidency, Bull EU 12-2001.
[12] [2003] OJ C 169/1. [13] [2007] OJ C 306/1.

Briefly put, the TEU establishes the EU's fundamental values, objectives, and principles, and the overall institutional structure and division of powers. It also contains, somewhat inconsistently, rules for common foreign and security policy. The TFEU develops the more specific rules for the various European Union bodies and for the exercise of the Union's competence.

The Treaty of Lisbon contains no major amendments to environmental policy. Perhaps the most significant change is the establishment of a separate legal basis for EU energy policy, an area that, with climate change, has become closely connected to the environment. Other more fundamental changes are that the EU Charter of Fundamental Rights has become legally binding and has gained the same legal status as the Treaties. It is also stipulated that the EU shall accede to the European Convention for the Protection of Human Rights and Fundamental Freedoms (Art 6 TEU). As regards the EU's values in general, it is now provided in Article 3(3) TEU that:

> It shall work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment.

The Treaty of Lisbon clarifies, though does not significantly change, the distribution of powers between the EU and Member States in various policy areas. Of greatest importance from an environmental perspective is that the EU has exclusive power to legislate in the fields of the common commercial policy and the conservation of marine biological resources under the common fisheries policy. The internal market, the environment, transport, and energy are all areas where the competence to legislate is shared between the Union and its Member States. The consequences of this shared competence are addressed in detail in Chapter 4.

1.2 The Nature of the European Union

The European Union is by its nature an international organisation, created through agreements between States. However, its structure, functions, and powers differ in several important respects from the traditional international organisation. Hence the Union should rightly be considered as an international construction of its own kind (*sui generis*).

An international organisation is normally viewed as a forum for cooperation between Member States in specific, predetermined areas. Member States generally do not intend to confer on international organisations the authority to make binding decisions, especially not against individual States' express wishes. Respect for such organisations' decisions depends largely on the Member States' willingness. In short, States accede to international organisations in order to coordinate their policies in a particular field with the other Member States. The International Maritime Organization (IMO), the International Labour Organization (ILO), and

the World Health Organization (WHO) are examples of traditional international organisations.

The EU differs from these organisations in that it has been entrusted by Member States to adopt legally binding acts. These acts in some cases bind in the same way as national laws. Although adopted by the EU, they are valid and enforceable in each Member State without having to be ratified.

Perhaps the most significant difference between the EU and a traditional international organisation is that the former has the possibility to sue a defaulting Member State before the Court of Justice of the European Union for failure to comply with EU law. The Court may also impose penalties for failure to comply with its decisions. (More on this in Chapter 5.) The fact that the formal initiative to issue binding legal decisions is taken by the EU itself and not by the Member States is a further expression of the considerable differences between the EU and the more traditional international organisations.

The Union in many ways resembles a State. Its main institutions (see next section) reflect the normal power structure within a State, and it can, as we have seen, adopt legislation and take decisions that are binding on Member States and in many cases directly applicable in their national legal systems. However, a fundamental difference between the Union and a State is that the Union lacks sovereignty, and its jurisdiction is limited to the areas where decision-making power has been transferred to it by the Member States. Thus the Union only has 'conferred competencies': Member States must have expressly given the Union the competence to take decisions in a given area. Such transfers of competence take place through provisions in the Treaties, mainly the TFEU. The Treaty provisions that indicate that the EU is entitled to take legally binding decisions within the framework of a certain policy—such as environmental protection or foreign commerce—are usually called legal bases. (More on this in Chapter 4.) Further, Union legislative acts are not, as in the case of a democratic State, adopted by parliamentary majority. Normally, the Council of Ministers, consisting of representatives of governments, plays a crucial role in decision-making, even if such decisions are usually made together with the directly elected European Parliament.

1.3 The Institutional Structure

The European Union's institutions are the European Council, the European Parliament, the Council of Ministers, the Commission, the Court of Justice of the European Union, the European Central Bank, and the Court of Auditors. Each institution shall act within the limits of powers conferred on it by the Treaties. It is incumbent on the institutions to practice mutual, sincere cooperation (Art 13 TEU). The first five institutions are particularly relevant for the rest of this study and will therefore be presented in more detail. Among the many other bodies of a different nature, mention should be made of the Economic and Social Committee

and the Region Committee: these have an advisory function and assist the European Parliament, the Council, and the Commission.

1.3.1 The European Council

The European Council is the EU's highest political body. It 'shall provide the Union with the necessary impetus for its development and shall define the general political directions and priorities thereof', but has no legislative function.[14] The European Council consists normally of Heads of State or Government, together with its President and the President of the Commission.[15] The EU High Representative for Foreign Affairs and Security Policy also participates. The European Council meets twice every six months and makes decisions by consensus, unless otherwise provided in the Treaties with respect to a particular issue. The President of the European Council represents the Union externally in matters covered by the common foreign and security policy. Such representation should, however, not override the authority of the EU High Representative for Foreign Affairs and Security Policy, and this makes for some confusion about the more precise division of powers between the two institutions (Art 15 TEU).

As regards the environment, the European Council has, since October 1972 when environmental policy was first discussed within the Community, often made statements related to EU environmental programmes and priorities. Since the early 1980s, these statements have been more or less regular, and have included guidelines for the work of the environmental institutions.

Given the similar names, it is important not to confuse the European Council with the institution termed the Council (or the Council of Ministers), which plays a central role in the EU legislative process.

1.3.2 The Council

The Council, which is governed by Article 16 TEU, consists of representatives of Member States at ministerial level. It is therefore sometimes called the Council of Ministers. The ministers participate in the EU's political and legislative activities with due regard to the interest of the respective State. This is strongly reminiscent of the role that such representatives play in traditional international organisations and demonstrates a classic international law element in the construction of the EU. It is the Council, together with the European Parliament, that exercises the legislative and budgetary functions in the EU. Although the Council formally is one single body, it is in practice divided into, and meets in, different configurations, which deal with various types of question. For instance, environmental matters are dealt with by the Environment Council, which consists of environment ministers of the

[14] Art 15(1) TEU.

[15] The European Council elects its president, by qualified majority, for a term of two and a half years, renewable once. Art 15(1) TEU.

Member States. The Council currently meets in ten different such configurations. The General Affairs Council, usually consisting of the Member States' European Affairs Ministers, shall ensure consistency in the work of the different Council configurations (Art 16 (6) TEU).

The Council decides by qualified majority, unless otherwise provided in the Treaties regarding a particular issue. The definition of 'qualified majority' is quite complex. Since 1 November 2014 qualified majority has meant at least 55 per cent of the members of the Council, which should include at least fifteen Council members representing Member States comprising at least 65 per cent of the EU population. A blocking minority must include at least four Council members. Three large Member States cannot alone block a decision, even if they represent more than 35 per cent of the citizens.[16]

Situations in the environmental field which require unanimity in the Council are, for instance, decisions relating to fiscal measures or those affecting town and country planning, or a Member State's choice between different energy sources (Art 192 (2) TFEU). This is discussed in more detail in Chapter 4.

Questions coming up for vote in the Council are usually prepared in expert groups and in the Committee of Permanent Representatives (Coreper).[17] This consists of Member States' ambassadors to the EU.

1.3.3 The Commission

The Commission (the European Commission) is sometimes likened to a government. This is because it is responsible for ensuring implementation of the Treaties and the measures adopted by the institutions under the Treaties and implementation of the budget. This means, among other things, that the Commission, supervised by the Court of Justice of the European Union, monitors the application of EU law (Art 17 (1) TEU). If a Member State fails to fulfil its obligations in this regard, the Commission may, as a last resort, lodge a case against the defaulting State before the Court of Justice. The Commission also has a very important role in the legislative process in the sense that new legislative acts can as a rule be adopted only on the initiative of the Commission (Art 17 (2) TEU). The Commission is therefore, at least formally, the 'engine' of the legislative process. With certain exceptions, among others the common foreign and security policy, it falls also to the Commission to represent the EU externally.

While the Commission in most areas has a monopoly on initiating legislative matters, other institutions may request it to put forward proposals needed to

[16] According to a special protocol appended to the Treaty of Lisbon, until 31 March 2017 a Member State may demand that a qualified majority decision be adopted according to the old rules. This is the Protocol on the Decision of the Council Relating to the Implementation of Art 16(4) of the Treaty on European Union and Art 238(2) of the Treaty on the Functioning of the European Union between 1 November 2014 and 31 March 2017 on the One Hand, and as from 1 April 2017 on the Other [2007] OJ C 306/159.

[17] Le comité des représentants permanents.

implement the objectives of the Treaties.[18] It is also possible for a large group of citizens of the Union—at least one million persons—from a significant number of Member States to formally ask the Commission to submit proposals on matters where citizens consider that a Union act is necessary to implement the Treaties (Art 11 (4) TEU). In none of those cases is the Commission obliged to act in accordance with the institution's or citizens' wishes.

The Commission has limited legislative power to implement, or in some cases supplement or amend, non-essential elements of legislative acts. This power can be compared to the power of a government to adopt rules under the laws enacted by the Parliament (see section 1.8).

The Commission consists of twenty-eight Commissioners, one per Member State. Commissioners represent the interest of the EU as a whole rather than their home States. The term 'Commission' refers both to the College of twenty-eight Commissioners with its President, Vice Presidents, and High Representative for Foreign Affairs and Security Policy, and to the whole administrative body, consisting of about 23,000 civil servants.[19]

The Commission President is elected following the proposal of the European Council to the European Parliament, which then decides by a simple majority. The Council will then appoint, in agreement with the President-elect and according to the proposals from the Member States, the other twenty-seven Commissioners. The five-year appointments are subject to the approval of the European Parliament (Art 17 (7) TEU).

Unlike the Council members, who represent their respective governments, the Commissioners are not State representatives. On the contrary, the Commission shall perform its duties with complete independence. Members shall neither seek nor take instructions from any government, institution, or other body (Art 17 (3) TFEU). Commissioners often have a background as politicians in their respective Member States, but act in the Commission as civil servants. Compared with the secretariats of other international organisations, however, the Commission has great influence. It has collegiate responsibility towards the European Parliament, which can dismiss the whole Commission through a vote of no confidence. It makes its decisions by majority vote (Art 250 TFEU).

The Commission is functionally divided into Directorates-General (DG) and independent sections such as the Legal Service. Each DG is responsible for a policy area, such as trade, energy, or environment, and is led by a Director-General, who in turn is responsible to the relevant Commissioner.

1.3.4 The European Parliament

The European Parliament (EP) together with the Council is the legislator of the European Union. Legislation is enacted jointly by these two institutions primarily

[18] Art 225 TFEU concerning the European Parliament and Art 241 TFEU concerning the Council.
[19] M Horspool and M Humphreys *European Union Law* (8th edn, Oxford University Press, 2014) 47–8.

within the framework of the ordinary legislative procedure (discussed later). The EP has developed from a more or less advisory organ to gain more and more power at every revision of the Treaties. It can today in many respects be regarded as an equal partner with the Council in the legislative process. The EP and the Council also share power over the EU budget. As mentioned, the EP plays an important role in the election of the President of the Commission. It can even force the Commission, through a vote of no confidence, to resign. The Commission is thus dependent on the support of the Parliament.

According to Article 14 TEU, the EP shall be composed of representatives of the Union's citizens. This corresponds to the requirement in Article 10 TEU that the functioning of the Union shall be founded on representative democracy and that citizens shall be directly represented at Union level in the EP. Members of the Parliament are directly elected in the same way as to a national parliament. They are not bound by any government's instructions and do not represent the national parliaments. Instead, they sit in one of seven multinational political groups. These include the group of the European People's Party (Christian Democrats), the Group of the Alliance of Liberals and Democrats for Europe, and the Group of the Greens/European Free Alliance. Originally, national parliaments elected members of the EP from among their own members. This procedure, which from the outset was intended to be temporary, was replaced in 1979 by direct election.

National parliaments, however, have certain defined roles in the EU. They are entitled to be informed by the other EU institutions. They participate in the interparliamentary cooperation between national parliaments and the EP.[20] They also fulfil a function as a reviewer of compliance with the subsidiarity principle.[21]

The EP has 751 members, including the president (Art 14 (2) TEU). When not otherwise stated in the Treaties, the EP takes decisions by absolute majority, that is, more than half of the votes cast (Art 231 TFEU).

The Parliament has its secretariat in Luxembourg; its sessions are held in Strasbourg, and committee meetings in Brussels. This obviously inefficient and costly arrangement has attracted much criticism, but has not yet been changed since a change requires the consent of all Member States.

1.3.5 The Court

The Court of Justice of the European Union consists of three courts: the Court of Justice (hereinafter also referred to as 'the Court'), previously known as the European Court of Justice, or EC Court, which is the highest court in the EU legal system; the General Court, created in 1988 and formerly known as the

[20] Protocol on the role of the national parliaments in the European Union [2007] OJ C 306/147.

[21] Protocol on the application of the subsidiarity and proportionality principles [2007] OJ C 306/148. On this principle, see section 2.4.2.

Court of First Instance; and the Civil Service Tribunal, which is a specialised court created in 2004. The Court shall ensure that law and order are observed in the interpretation and application of the Treaties (Art 19 TEU). 'Law and order' indicates not only the requirement to ensure that the Treaties and secondary legislation are properly applied, but concerns an entire legal system including generally accepted legal principles. The Court has jurisdiction over the whole of EU law. It settles disputes regarding the division of competences between EU bodies, and stipulates the limits of EU law as a whole. Member States may not settle disputes concerning the interpretation or application of the Treaties in a way other than as provided for therein, that is, mainly by submitting disputes to the Court (Art 344 TFEU). The Court has jurisdiction to review the legality of legislative acts such as regulations and directives, and can declare them invalid (Arts 263 and 264 TFEU). This makes the Court uniquely powerful among international courts. In addition to the Treaties, particularly Articles 19 TEU and 251–281 TFEU, the Court's organisation and procedures are regulated in the Statute of the Court, which is annexed as a protocol to the Treaties,[22] and the Court's Rules of Procedure.

The Court has played a catalytic role in the development of EU law and thus in the integration of the Member States. Without clear ground in the Treaties, the Court has spelled out such fundamental principles for EU law as the direct applicability of Treaty provisions and the primacy of EU law over national law. The Court's position in developing such principles has been that they are necessary to give effect to the Treaties' overall objectives. The Court has also established a number of general legal principles that are now an integral part of the EU legal order.[23] This has, not surprisingly, given rise to criticism that the Court is 'activist' and sometimes creates, rather than interprets, EU law. The boundary between interpretation and judicial activism is in many cases difficult to draw, especially when applying the Treaties' brief and general provisions to complex situations or tackling issues where the Member States have been unable or unwilling to articulate a clear policy or rule, but where the Court is still expected to be able to spell out what the applicable law is.

The Court is composed of one judge per Member State. These are assisted by eleven advocates-general.[24] The judges and advocates-general are appointed among persons whose independence is beyond doubt and who possess the qualifications required for appointment to the highest judicial offices in their home country, or who are of recognised competence. They are appointed by common accord of the governments of Member States and hold office for a renewable term of six years (Art 19 TEU and Art 252 TFEU).

The task of the advocates-general is to make reasoned proposals for decisions in the cases heard by the Court. This was previously done for all cases, but now applies

[22] OJ C 306/148 (n 21).

[23] Some of these principles such as the legality principle and the proportionality principle are dealt with in some detail in Chapter 2.

[24] See also Court of Justice of the European Union, Press Release No 139/13 (23 October 2013).

to about half of the cases before the Court. Advocates-general give their views to the Court on how the case should be assessed. Their suggestions often contain extensive reviews of past practice and interesting principled discussions.

Proceedings before the Court are essentially written. Member States and some other stakeholders may intervene by submitting observations and explaining their views on the matters at issue in a case.

The Court entertains different types of case, which are initiated in different ways. The most common are infringement proceedings, in which the Commission initiates proceedings against a Member State for, inter alia, failure to implement a directive in time or for other violation of an obligation under the Treaties. Member States may also bring actions against each other on this basis. However, the latter is in practice highly unusual (Arts 258 and 259 TFEU). The Court is also competent to review the legality of binding legislative acts adopted by EU institutions, mainly the EP and the Council. Such reviews may be initiated by the EP, the Council, the Commission, or a Member State. Member States and EU institutions may also bring what are termed failure-to-act actions if an institution, in contravention of its obligations under the Treaties, fails to act. A similar possibility also exists, under certain conditions, for natural and legal persons. (Arts 263 and 265 TFEU.)

Another type of case is the preliminary rulings that the Court issues pursuant to requests by Member State courts. These may relate to the interpretation of the Treaties themselves or to the validity or the correct interpretation of acts decided under the Treaties. The different types of case are discussed further in Chapter 5.

The Court has so far judged more than 15,000 cases and entertains nowadays about 500 per year. Judgments and the advocates-generals' opinions from 1997 onwards are available on the Court's website.[25]

The General Court (formerly the Court of First Instance) was established in 1988, mainly to relieve the Court. Its jurisdiction, which is defined in Article 256 TFEU, covers a variety of cases. However, it primarily decides cases between the EU institutions and natural or legal persons, for example competition cases, claims for damages against the EU, and cases relating to decisions to include or not to include a substance on a list of prohibited and permitted substances. Judgments of the General Court may be appealed to the Court of Justice with respect to points of law.

Disputes between the EU institutions and their employees are settled by a special court, the Civil Service Tribunal, which is a lower instance to the Court.

1.3.6 The Economic and Social Committee and the Committee of the Regions

The EP, the Council, and the Commission are assisted by an Economic and Social Committee and a Committee of the Regions with advisory functions. The Economic and Social Committee consists of representatives of employers' and

[25] The address is <curia.europa.eu>. Earlier judgments can be found on <eur-lex.europa.eu>.

employees' organisations and other representatives of civil society. The Committee of the Regions consists of representatives of regional and local bodies who either are elected to a regional or local authority or are politically accountable to an elected assembly. Members of these committees shall not be bound by any instructions, but must act in the Union's general interest, and be completely independent (Art 300 TFEU).

The number of members for each of the committees should be maximum 350. They are appointed by the Council on a proposal by the Commission. The committees shall be consulted by the EP, the Council, or the Commission in the cases provided for in the Treaties. They may also, on their own initiative, deliver an opinion in cases deemed appropriate.

For countries with federal systems and those that consist of autonomous regions, the Regional Committee can be an important forum for participation in the work of the EU.

1.4 The EFTA and the EEA

Before discussing the sources of law in the European Union, we give a short presentation of another European cooperation organisation with strong links to the EU, namely the European Free Trade Association (EFTA). EFTA was established through a convention concluded in Stockholm in 1960 and amended in Vaduz in 2001.[26] The original members were Austria, Denmark, Norway, Portugal, Sweden, Switzerland, and the UK. These States were in principle in support of closer economic cooperation between the European States, but they were not prepared to go as far as EC members, namely towards a federal structure. Later on, Finland, Iceland, and Liechtenstein also joined EFTA. Most of these States have since left EFTA to join the EU.

The EC and EFTA cooperated successfully in many areas. As a new step towards further cooperation, an ambitious agreement was signed in May 1992 between the EC and its Member States on the one hand and the EFTA States (except Switzerland) on the other. The agreement created what was called the European Economic Area (EEA).

The EEA Agreement is a hybrid between a traditional intergovernmental agreement and the supranationality of Union law. EFTA States have not transferred any power of decision to EEA joint institutions. Decisions are made by consensus, which means that a State cannot be formally bound against its will. Meanwhile, there are certain principles in the Agreement that in case of conflict give EEA rules, at least to some extent, priority over national rules in EFTA States. EU legislation in the fields covered by the EEA Agreement and adopted before the entry into force of the EEA Agreement in 1994 were incorporated into the EEA Agreement

[26] Convention Establishing the European Free Trade Association (Stockholm, 4 January 1960) 370 UNTS 3.

(including its annexes and protocols) and became applicable in the EFTA States. The EEA Agreement includes free movement of goods (with the exception of fish and agricultural goods), services, persons, and capital, and cooperation on, inter alia, environmental protection, consumer protection, and research. EU legal acts adopted after the entry into force of the EEA Agreement become a part of EEA law through a unanimous decision of the EEA Committee. The latter is composed of the EU States and the EFTA States.[27] Since most former EFTA States have become members of the EU, the EEA Agreement today exists between the EU on the one hand and Norway, Iceland, and Liechtenstein on the other.

1.5 Sources of Law in the European Union

Sources of law in the European Union are usually divided into primary and secondary sources. The most important primary sources are the EU Treaty (TEU), the Treaty on the Functioning of the European Union (TFEU), and the EU Charter of Fundamental Rights. Protocols and declarations attached to the Treaties plus the accession treaties concluded with the new Member States count as primary sources. These are intergovernmental agreements and related documents. Any change in the primary sources is made through a new treaty, which must be ratified by all Member States. The original Treaty of Rome has been amended, inter alia, by the Single European Act in 1987, the Treaty of Maastricht 1992, the Treaty of Amsterdam 1997, the Treaty of Nice 2000, and the Treaty of Lisbon 2009.

Secondary sources are those that are adopted on the basis of primary sources. They derive their validity from primary law and are adopted to implement it. They are designated as secondary because they must have a legal basis in primary law. The significance of this is discussed further in Chapter 4. Secondary law is adopted by the EU institutions, mainly the Council and the EP. It consists of binding instruments, namely directives, regulations and decisions, and non-binding instruments, that is, recommendations and opinions. Article 288 TFEU provides a definition of these instruments:

- A regulation shall have general application. It shall be binding in its entirety and directly applicable in all Member States.
- A directive shall be binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods.
- A decision shall be binding in its entirety. A decision which specifies those to whom it is addressed shall be binding only on them.
- Recommendations and opinions shall have no binding force.

Regulations are in many respects similar to national laws. They are binding, are generally applicable, and shall be applied directly by national courts and other

[27] For more information about EFTA and the EEA Agreement, see <http//www.efta.int>.

authorities. They can, under certain circumstances, be invoked by individuals. They need not be incorporated in or transformed into national law, and must be applied directly and in their original form.[28] As regards the environment, regulations are often used to implement at national level international environmental conventions to which the EU has acceded. The EU's main legal act in the field of chemicals, REACH,[29] is also a regulation.

A directive is more similar to an international agreement in that it is up to Member States to achieve its intended results through national legislative measures: the content of a directive must be transposed into national law. Member States will decide the form and methods for this. A deadline is always set in the directive for its transposition by Member States into national law. Until then each Member State shall determine whether the contents of the new directive are consistent with that country's applicable laws or whether it is necessary to make changes in existing laws or introduce new legislation. The transposition is effected through legislative provisions or other binding rules. According to the established practice of the Court of Justice, mere administrative practices that can be freely altered by the administration and are not publicised in a satisfactory manner are not considered to fulfil properly the obligation of the Member State.[30] Natural and legal persons must be able to invoke rights derived from the directive before a national court. For this purpose, the Member State must establish a legal framework in the area in question. This does not necessarily mean that the directive's provisions will be transposed into a specific law.[31] However, the national provision through which a directive is transposed must be capable of creating a situation which is sufficiently 'precise, clear, and transparent' to enable individuals to ascertain their rights and obligations.[32] It is not enough that all provisions of a directive are in practice enforced by the authorities of a Member State even though implementing legislation is missing or incorrect.[33]

While each Member State is free to distribute legislative powers internally and to implement a directive through measures taken by regional and local authorities, this does not release the Member State from the obligation to ensure that a directive's provisions are correctly transposed into national law.[34]

If a directive is not implemented in time or is transposed incorrectly, the Commission may bring infringement proceedings against the Member State concerned. (More on this in Chapter 5.) In the environmental sector, directives are often the most appropriate instrument, because environmental problems often

[28] Case 34/73 *Variola* ECLI:EU:C:1973:101, paras 9–10.

[29] Council Regulation (EC) No 1907/2006 Concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) [2006] OJ L136/6.

[30] See for instance Case C–83/97 *Commission v Germany* ECLI:EU:C:1997:606, para 9; Case C-242/94 *Commission v Spain* ECLI:EU:C:1995:317, para 6; and Case C-381/92 *Commission v Ireland* ECLI:EU:C:1994:22, para 7.

[31] Case C-131/88 *Commission v Germany* ECLI:EU:C:1991:87, para 6.

[32] Case C-417/99 *Commission v Spain* ECLI:EU:C:2001:445, para 38.

[33] Case C-131/88 *Commission v Germany* (n 31), para 8.

[34] Ibid, para 71.

require different sorts of action in different Member States. The Habitat Directive[35] is a good example.

Decisions can be addressed to Member States, companies, or individuals and are only binding on those to whom they are addressed. They are used to implement EU legislation in special cases.

One could also speak of a tertiary source of EU law: acts adopted by the Commission to implement secondary law. According to Article 290 TFEU, it is possible to delegate to the Commission, through a legislative act, the power to adopt acts of general application which are not per se legislative acts, but supplement or amend certain non-essential elements of a legislative act. Where uniform conditions for implementing legally binding Union acts are needed, the Commission may, under Article 291, be given implementing powers through such acts. (See further section 1.8.) The EU's overall legal framework, that is, primary and secondary legislation, recommendations and opinions, general legal principles, Court practice, and international standards to the extent they form part of the Union legal order, is usually referred to jointly as the *acquis communautaire*.

We are not going to discuss the interpretation principles of EU law here, but note that interpretation is often contextual and strongly purpose-oriented. Of great importance is that all regulations and directives begin with an introductory part, or preamble, in which the background and purpose of the act are explained. Preambles may be extensive and contain reasons for adopting the act. These reasons are used by the Court as an aid to interpretation.

The Union currently has twenty-four official languages. All instruments are drawn up in all these languages and all language versions are formally equivalent. However, English and French dominate as the working language of the EU institutions, with the exception of the Court, whose working language is French. Therefore, other language versions are usually translated from English and French. The Court not infrequently compares various language versions when the meaning of a part of a text in a given case is unclear.

At the end of May 2015, some 11,500 regulations and about 1,840 directives were applicable in the twenty-eight Member States.[36] Finding relevant EU legal acts in the latest version can sometimes be a bit awkward. All current EU legislation is, however, gathered in the EUR-Lex, at <http://eur-lex.europa.eu/>.

1.6 Priority and Direct Effect

The relationship between EU law and national legal systems was regulated for the first time in the Treaty of Lisbon. This was done not through a specific Treaty

[35] Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora [1992] OJ L 206/7.

[36] Report from the Commission—Monitoring the application of Union law, 2014 Annual Report (9 July, 2015) COM (2015) 329 final. See also <http://en.euabc.com/word/2152> (visited 4 January 2016).

provision, but by a declaration annexed to the Final Act of the Treaty.[37] This reflects the issue's politically sensitive nature. In practice, however, the Court of Justice had declared the principle of the priority of EU law over national law nearly fifty years earlier. In its judgment in *Costa v ENEL*, handed down in 1964, the Court stated that:

> The transfer by the States from their domestic legal system to the Community legal system of the rights and obligations arising under the Treaty carries with it a permanent limitation of their sovereign rights, against which a subsequent unilateral act incompatible with the concept of the Community cannot prevail.[38]

The principle of precedence of EU law was thus established. The Court of Justice later noted, inter alia, that EU law takes precedence even over Member States' constitutions, and prevents the adoption of national legislation that is contrary to EU law.[39] This has understandably given rise to considerable discussion and even criticism. Among others, the German Constitutional Court has declared that the condition for its acceptance of the principle of EU law's precedence is that this law maintains adequate protection of human rights for citizens.[40]

Closely linked to the question of the primacy of EU law over domestic law is the question of whether EU law may have direct effect, that is, whether it can be invoked by individuals and companies and be applied by the national courts and authorities, with no previous transposition into national law. EU law is basically a part of international law and from this perspective it is up to each State to define whether and how international agreements shall be applied in the respective national legal system. It is therefore far from obvious that such agreements can directly create any rights for individuals or companies in State Parties without making a detour via national law. However, in *van Gend en Loos*, the Court held that an article in the then EEC Treaty could—and should—be directly applied by a national court. The Court of Justice found that:

> the Community constitutes a new legal order of international law for the benefit of which States have limited their sovereign rights albeit within limited fields, and the subjects of which comprise not only the Member States but also their nationals. Independently of the legislation of Member States, Community law therefore not only imposes obligations on individuals but is also intended to confer upon them rights which become part of their legal heritage.[41]

[37] Declaration (No 17) concerning primacy provides: 'in accordance with well settled case law of the Court of Justice of the European Union, the Treaties and the law adopted by the Union on the basis of the Treaties have primacy over the law of Member States, under the conditions laid down by the said case law.' [2007] OJ C306/231.

[38] Case 6/64 *Costa v ENEL* ECLI:EU:C:1964:66.

[39] Case 11/70 *Internationale Handelsgesellschaft* ECLI:EU:C:1970:100, para 3 and Case C-106/77 *Simmenthal* ECLI:EU:C:1978:49, para 16.

[40] For a discussion of the relevant judgments of the German Federal Constitutional Court, see Barnard and Peers (eds) *European Union Law* (n 1) 162.

[41] Case 26-62 *van Gend & Loos* ECLI:EU:C:1963:1 (English special edition).

For a provision of EU law to have direct effect, it is generally required that it is unconditional, that is, does not require any additional measures to be taken, and that it is sufficiently clear and precise. The latter, however, has not prevented provisions whose correct application has occasioned extensive interpretation by the Court from having direct effect. Examples are Articles 34–36 TFEU on the prohibition of quantitative import and export restrictions and the principle of non-discrimination in Article 18(1) TFEU. The case *van Gend en Loos* was about what is usually referred to as *vertical* direct effect, that is to say a provision of the Treaty that gives individuals a right which they can invoke against the State. There are, however, also examples of *horizontal* direct effect where such a provision can be invoked in a legal relationship between individuals.[42]

That regulations can have direct effect is not surprising because, according to Article 288 TFEU, they are directly applicable in each Member State. Directives, however, have in principle no legal effect until they have been transposed through national legislation. The Court of Justice has, nevertheless, relied on the argument of the purpose of a directive and developed the principle that directives can under certain circumstances have direct effect.[43] This has been justified by, inter alia, a desire to ensure the effect of directives and to prevent Member States from taking advantage, in relation to individuals, of their own failure to implement a directive in a timely and proper manner.[44] The principle has since been developed and expanded through a number of rulings by the Court. Diverse variants or related principles have also been added.[45]

Direct effect of directives in the strict sense means that a specific provision of a directive can be invoked by individuals before national courts without that provision having been transposed or correctly transposed into national law. For a provision of a directive to have direct effect, it is required that the following conditions are met: (a) the deadline for the implementation of the directive through national action has expired; (b) the Member State has not transposed the directive or has not transposed it properly; (c) the rights and obligations arising from the provision of the directive are unconditional and require no further action from either EU or national authorities; (d) the provision is sufficiently precise to be invoked by individuals and applied by the national courts.[46]

Against individuals or companies, provisions of a directive can only create rights.[47] The principle of legal certainty precludes directives from imposing obligations. An individual cannot rely on a directive against a Member State when it concerns a State's obligation directly linked to the performance of another obligation that according to the directive belongs to third parties.[48] 'The State' has in this context been broadly

[42] An example of horizontal direct effect is discussed in Case 43/75 *Defrenne* ECLI:EU:C:1976:56.
[43] Horspool and Humphreys *European Union Law* (n 19) 151–5.
[44] See, eg, Case 148/78 *Ratti* ECLI:EU:C:1979:110.
[45] See Barnard and Peers (eds) *European Union Law* (n 1) 149–51.
[46] The Court has established these requirements in a number of cases. See, eg, Case 152/84 *Marshall* ECLI:EU:C:1986:84, para 46; Case C-236/92 *Comitato di Coordinamento per la Difesa della Cava and Others* ECLI:EU:C:1994:60, para 8.
[47] Case C-152/84 *Marshall* (n 46), para 48.
[48] Case C-201/02 *Wells* ECLI:EU:C:2004:12, para 56.

interpreted by the Court of Justice, and 'individual' has therefore got a narrow definition.[49]

As regards environmental directives, examples of rules which have direct effect can be found in, among other places, directives with specific provisions relating to limits on emissions or to quality standards. The Court has declared that in all cases where Member States have failed to take action required by a directive on air quality or drinking water quality—the aim of which is to protect human health—and have thereby jeopardised individuals' health, everybody is entitled to invoke the mandatory provisions of these directives.[50]

Court practice has, however, loosened up the requirement that a directive must specifically give rights to individuals so that it can be invoked by them before national courts. In the *Kraaijeveld* case,[51] the Court said that certain provisions of Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment (EIA Directive)[52] could be invoked to override a national measure even though the rules of the Directive were conditional and gave no clear right to individuals. It can of course be discussed whether the decision in this case involves application of the principle of direct effect or another particular effect of a directive, for example supremacy of the EU law. This type of application of a directive, confirmed in subsequent Court practice, has been accepted mainly in relationships between individuals. This may be because the Court applies different requirements when examining the compatibility of a national rule with a directive compared to when it assesses the direct application of a directive in relation to individuals. However, the result of inability to apply a national rule may very well be to worsen an individual's situation from a legal point of view. In the *Delena Wells* case, the Court made it clear that 'adverse repercussions on the rights of third parties' do not justify preventing an individual from invoking the provisions of a directive against a Member State.[53] In this case, extraction in a quarry had to cease in anticipation of an environmental impact assessment that the Member State had, in breach of Directive 85/337, failed to require from the owner of the business before granting the licence.

The same line of argument was applied by the Court in another case that concerns the relation between two public entities. The *Salzburger Flughafen* case[54] is about the application of the EIA Directive to a projected extension of Salzburg Airport. When the airport operating entity submitted an application to the relevant permit authority, the Amt der Salzburger Landesregierung (the Amt), another public entity, the Landesumweltanwaltanschaft Salsburg (Legal Office for the Environment), requested the Amt to include an EIA requirement in the permit.

[49] See, eg, Case C-188/89 *A Foster and others* ECLI:EU:C:1990:188; P Wennerås *The Enforcement of EC Environmental Law* (Oxford University Press, 2007) 45 et seq.

[50] Case C-59/89 *Commission v Germany* ECLI:EU:C:1991:225, para 19. See also Case C-237/07 *Janecek* ECLI:EU:C:2008:447.

[51] Case C-72/95 *Aannemersbedrijf PK Kraaijeveld* ECLI:EU:C:1996:404.

[52] [1985] OJ L 175/40.

[53] Case C-201/02 *Wells* (n 48), para 57.

[54] Case C-244/12 *Salzburger Flughafen* ECLI:EU:C:2013:203.

The Amt rejected this request. The decision was appealed against and the Austrian Supreme Administrative Court eventually requested a preliminary ruling from the Court of Justice. The latter confirmed that the relevant provisions of the EIA Directive have direct effect without discussing the fact that the directive had been invoked not by an individual, but by one public authority against another. This implies that provisions of a directive may be invoked against a Member State not only by individuals who derive rights from those provisions, but also by branches of the State itself, and even when that has repercussions for third parties.[55]

Alongside the direct effect of directives, there is a far-reaching obligation for national courts to attempt to achieve the purpose of a directive by interpreting national law in the light of the directive. This rests on a general obligation for courts to interpret national law so that it complies with EU law.[56] The Court has expressed that the principle of consistent interpretation requires that 'the national court does whatever lies within its jurisdiction' to ensure that a specific directive is given its full effect.[57] The legislation need not be interpreted against its express letter.

If a national legal system, despite the above principles of priority, direct effect, and interpretation, does not correctly reflect European legislation and this is detrimental to an individual's interests, the State may become liable to pay damages to the individual in accordance with the so-called *Francovich* principle.[58]

A relevant question is whether a Member State is obliged to take account of a directive's objective before the time for its transposition into national law has expired. The Court stated in the *Inter-Environnement Wallonie* case regarding the interpretation of a waste directive that during the period laid down in the directive for its implementation, Member States must refrain from adopting measures liable seriously to compromise the result prescribed.[59]

In summary, the Court, through its practice, which in itself is hardly clear and precise, has developed extensive opportunities for individuals to bring about a review of national legal compatibility with the provisions of EU directives, whether or not a directive contains rights for individuals. However, as regards the environment, this opportunity has been partly offset by directives that are increasingly designed as a framework without clear goals and standards. This makes it harder to control their application and assess whether Member States' actions are in compliance with EU law.[60] (See further Chapter 6.)

As further discussed in Chapter 5, Member States have a general obligation to provide remedies sufficient to ensure effective legal protection in the fields covered

[55] For a more detailed discussion, see L Squintani and H H B Vedder 'Towards Inverse Direct Effect? A Silent Development of a Core European Law Doctrine' (2014) 23 *Review of European, Comparative & International Environmental Law* 144–9.

[56] This principle was set out in Case 14/83 *von Colson and Kamann* ECLI:EU:C:1984:37.

[57] Joined Cases C-397 to 403/01 *Pfeiffer and Others* ECLI:EU:C:2004:584, para 118.

[58] The principle was established by the Court in Joined Cases C-6/90 and C-9/90 *Francovich and Others* ECLI:EU:C:1991:428, para 11.

[59] Case C-129/96 *Inter-Environnement Wallonie* EU:C:1997:628, para 50.

[60] Wennerås *The Enforcement of EC Environmental Law* (n 49) 73.

by Union law. (Art 19 (1) TEU) This has implications for individuals' possibility to initiate a judicial review and make use of the principle of direct effect.

1.7 Decision-making Procedures

The 'ordinary' legislative procedure is the main rule in most areas, with the exception of foreign and security policy. This means that the EP and the Council, on a proposal from the Commission, jointly adopt a regulation, directive, or decision (Art 289 TFEU). The procedure is quite complicated.

The process, as defined in Article 294 TFEU, starts with the Commission submitting a proposal to the Parliament and the Council. The EP adopts a position at the first reading (committee treatment) and sends it to the Council. If the Council approves the EP's position, the act shall be adopted in the wording which corresponds to the Parliament's position. If the Council does not approve the Parliament's position, it shall adopt its own reasoned opinion and send it to the EP.

The second reading in the Parliament is more complex. If the EP, within three months after the Council has communicated its position, approves it at its first reading or does not take a decision within that time, the act shall be considered as adopted in the wording which corresponds to the Council's position. If the Parliament rejects by a majority of its members the Council's position, the proposed act is considered as not adopted. If, as a third alternative, the EP, by a majority of its members, makes amendments in the Council's position at the first reading, the amended text is forwarded to the Council and the Commission. The Commission shall give its opinion on the proposed amendments. If the Council, acting by qualified majority, approves all the amendments within three months, the act is deemed adopted. If the Commission rejects the proposed amendments, the Council can adopt the act only by unanimous decision.

If the Council does not approve all the proposed amendments, its President, after consultation with the President of the Parliament, shall convene the so-called Conciliation Committee. This consists of representatives of the EP and the Council. This committee shall, within six weeks, adopt a joint draft.[61] If it fails to do so, the proposed act will be deemed not adopted. If the Conciliation Committee adopts a joint text, the EP and the Council shall each, within six weeks from the time of adoption of the draft by the Committee, have a third reading of the act and approve it in accordance with the said draft. The EP shall adopt the act by a majority of the votes cast, the Council by qualified majority. If not, the proposed act shall be deemed not to have been adopted.

For certain issues relating to environmental policy, the ordinary legislative procedure does not apply and a special procedure will be applicable. Here the Council acts unanimously after having 'heard' the EP. These issues include provisions primarily of a fiscal nature, measures affecting land use planning, and measures significantly

[61] As regards the Conciliation Committee, see Art 294(10)–(12) TFEU.

affecting a Member State's choice between different energy sources and the general structure of its energy supply (Art 192 (2) TFEU). This is discussed in more detail in Chapter 4.

In practice, extensive informal contacts between the EP and the Council often take place in order to reach agreement on the preparation of a measure before the Parliament starts its first reading.

Acts adopted according to a legislative procedure are called legislative acts (Art 289 (3) TFEU).

1.8 Comitology

As mentioned earlier, the Commission has limited legislative power compared with the implementing power that in most national systems is delegated by the legislative branch to the executive. The purpose is to give effect to the legislation adopted by the Council and the EP and to implement it at European level. Originally, this power was exercised by committees consisting of representatives of the Member States and chaired by a Commission official, thereby the term comitology.[62] These committees were tasked to scrutinise the Commission's proposals and adopt formal opinions before the Commission proceeded. This procedure had been in ad hoc use since the early 1960s, and it was first through Decision 1999/468/EC[63] that principles and rules for comitology were established. The increasing recourse to framework legislation, the need for supporting legislation to agree on technical details, and long-standing disagreements on the role of various institutions and Member States in comitology procedures led to substantial amendment of Decision 1999/468/EC in 2006.[64] By then almost all areas of EU activity had some comitology. The number of comitology committees was then over 260 and they had adopted 1,800 measures.[65]

The comitology system was abolished through the Treaty of Lisbon on 1 December 2009, and was replaced by Articles 290 and 291 TFEU. These articles introduced two categories of act, namely delegated and implementing. In this way, a distinction was made between the Commission's legislative and non-legislative

[62] Generally on comitology, see A Héritier, C Moury, C S Bischoff, and C F Bergström *Changing Rules of Delegation, A Contest for Power in Comitology* (Oxford University Press, 2013); J Blom-Hansen *The EU Comitology System in Theory and Practice: Keeping an Eye on the Commission?* (Palgrave, 2011); and C F Bergström *Comitology, Delegation of Powers in the European Union and the Committee System* (Oxford University Press, 2005).

[63] Council Decision 1999/468/EC laying down the procedures for the exercise of implementing powers conferred on the Commission [1999] OJ L184/23. The background of this decision was an amendment in Art 145 of the EC Treaty (later Art 202) that was introduced by Art 10 of the Single European Act to address the problem of unequal footing of the various parties to the comitology system.

[64] Decision 2006/512/EC amending Decision 1999/468/EC laying down the procedures for the exercise of implementing powers conferred on the Commission [2006] OJ L 200/11.

[65] A Hardacre and M Kaeding *Delegated & Implementing Acts: The New Comitology* (5th edn, European Institute of Public Administration, 2013) 8.

acts. According to Article 290, the Council and the EP can through a legislative act empower the Commission to adopt delegated (non-legislative) acts to supplement or amend certain non-essential elements of a legislative act. The legislative act that delegates non-legislative power to the Commission must define the objectives, content, scope, and duration of the delegated power, and lay down the conditions to which the delegation is subject. These conditions may be that the delegation can be revoked by the EP and the Council or that the delegated act may enter into force only if it is not opposed by the EP or the Council within a prescribed period. Note that the Commission's delegated acts are those that could have been adopted by the legislator itself.

When the EU legislator deems that uniform conditions for implementing EU legislative acts are necessary, such acts confer, according to Article 291 TFEU, implementing powers on the Commission. Unlike the case of delegated acts, the Council and the EP lack a controlling role with respect to the Commission's exercise of implementing power. Such control is exercised by the Member States. A mechanism for this control was established by Regulation (EU) No 182/2011 (the Comitology Regulation).[66] This regulation provides for two procedures: advisory and examination. The advisory procedure (Arts 2 (3) and 4 of the Comitology Regulation) is for implementing measures of a less sensitive nature, such as grant approvals. The procedure starts with the Commission's draft of an act, which the advisory committee (consisting of a representative of each Member State chaired by a Commission official) considers and adopts an opinion on simple majority vote. The Commission takes account of the opinion, but is not legally bound by it.

The examination procedure (Arts 2(2), 5, 6, and 7 of the Comitology Regulation) is more significant with respect to environmental acts. The procedure is used for, inter alia, implementing measures of general scope, measures related to agricultural policy, environmental policy, and programmes with substantial budgetary implications. Under the examination procedure, the Commission can adopt a draft implementing measure if it has the support of a qualified majority of the examination committee. In the case of a negative committee opinion, the Commission may submit its draft to an appeal committee or prepare an amended version of its draft.

If the examination committee delivers no opinion, the Commission may adopt the implementing measure except in certain defined cases. In these cases, the Commission may choose to submit an amended draft.

The purpose of the rather complicated examination procedure is to ensure that the Commission's implementation power is under the effective control of the Member States. As regards the environment, framework legal acts have increased in number in recent years. These acts normally contain specific provisions delegating to the Commission the power to adopt supplementary measures through the committee procedures for proper implementation of the acts. An example is Directive

[66] Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers [2011] OJ L55/13.

2008/50/EC on ambient air quality.[67] Articles 28(2) and 29(2) of this directive empower the Commission to adopt implementing measures according to the comitology system. The Commission has adopted two implementing acts to fulfil its obligation in this respect.[68]

Further Reading

H T Anker, K de Graaf, R Purdy, and L Squintani, 'Coping with EU Environmental Legislation—Transposition Principles and Practices' (2015) 27 *Journal of Environmental Law* 17–44

C Barnard and S Peers (eds) *European Union Law* (Oxford University Press, 2014)

P Craig and de Búrca (eds) *The Evolution of EU Law* (2nd edn, Oxford University Press, 2011)

U Drobnig *Principles of European Law* (Oxford University Press, 2015)

[67] Directive 2008/50/EC of the European Parliament and the Council on ambient air quality and cleaner air for Europe [2008] OJ L152/1.

[68] See, eg, Commission Directive (EU) 2015/1480 amending several annexes to Directives 2004/107/EC and 2008/50/EC of the European Parliament and of the Council laying down the rules concerning reference methods, data validation and location of sampling points for the assessment of ambient air quality [2015] OJ L 226/4.

2

Objectives, Principles, and Resources

2.1 Introduction

Protection of the environment was not mentioned in the 1957 Treaty of Rome. This is not surprising since environmental protection had not yet become an important issue on the political agenda at that time. Even at national level, few laws specifically addressed protection of the environment. However, during the 1960s, concern for the condition of the environment grew within the then EEC as well as in other industrialised countries. In July 1971, when the first UN Conference on Human Environment (the Stockholm Conference) was being organised, the Commission stated that it was necessary to draw up guidelines for a Community environmental action programme.[1] At the Stockholm Conference in June 1972, the participating EC countries (still the original six) could not get support for their demand for more stringent international environmental measures. Disappointed at the meagre results of the Conference, the EC Heads of State and Government met in Paris in October 1972. The meeting declared that economic expansion was not an end in itself, but should result in an increased standard of living and quality of life. Special attention should be given to non-material values such as protection of the environment.[2] It was also decided that a Community-level programme for the protection of the environment should be drawn up. The Community's First Environment Action Programme was adopted in 1973. Since then, six more such programmes have come into being.[3]

The first five action programmes (together covering the period 1973–2000) were adopted in the form of a declaration (first programme) or a resolution (second to

[1] First communication of the Commission about the Community's policy on the environment (22 July 1971) SEC (71) 2616 final.

[2] Bull EC V—1972, 10. Today's increased understanding of the significance of environmental factors in a society's economy makes general reference to the environment as a non-economic factor surprising. The statement of the Paris Meeting should be understood in the light of the knowledge and values that influenced the view on the relation between society and the environment at that time.

[3] The First Environment Action Programme for the period 1973–1976, OJ [1973] C 112/55, 1; Second Environment Action Programme for the period 1977–1981, OJ [1977] C 139/1; Third Environment Action Programme for the period 1982–1986, OJ [1983] C 46/1; Fourth Environment Action Programme for the period 1987–1992, OJ [1987] C 328/1; Fifth Environment Action Programme for the period 1993–2000, OJ [1993] C 138/1; Sixth Environment Action Programme for the period 2002–2012, OJ [2002] L 242/1; Seventh Environment Action Programme for the period 2014–2020, OJ [2013] L 354/171.

fifth programmes) by both the Council and the Member States. The reason was that the Community up to 1987 (ie the period covered by the first four action programmes) lacked explicit competence to adopt action programmes in the field of environmental protection. Moreover, it was assumed that the programmes would be implemented by the Community as well as by the Member States, depending on the measures. Following an amendment introduced by the Treaty of Maastricht, action programmes are now decided by the Council and the European Parliament (EP) in accordance with the ordinary legislative procedure.[4] Thus, compared with the earlier period, these programmes have a different character as a source of law.

It was maintained earlier that one effect of the action programmes was to clarify the then Community's legal capacity to legislate within areas and for purposes set out in the programmes. This is even clearer with the present decision-making procedure according to Article 192 TFEU. This is particularly significant with respect to the subsidiarity principle, according to which the EU can legislate or adopt other measures within an area only if the purpose of the planned measure cannot be sufficiently achieved by the Member States themselves.[5]

2.2 Environment Action Programmes

2.2.1 The first four Action Programmes

The First Environment Action Programme, which covered the period 1973–6, set out basic principles of EU environmental policy. Among these is the principle that pollution shall be prevented at source. In addition, a project's environmental impacts shall be assessed during the decision-making processes, natural resources shall be used rationally, the costs of preventing and repairing environmental damage shall be included in the consumer prices (ie internalisation of costs), Member States' environmental policies shall take due account of the interests of developing countries, environmental information shall be available to the public, and environmental education shall be provided.

In the following years, these principles gradually crystallised through effects of Community legal acts. They are today better known as environmental impact assessment (EIA), the polluter-pays principle, the right to information, etc.

To realise these objectives, the Action Programme spelled out measures that were brought together under three headings:

1. action to reduce or prevent pollution;
2. action to improve environmental quality; and
3. action in cooperation with international organisations.

The major part of the programme was devoted to developing measures of the first kind. These include the setting of scientific criteria for limits on the most important

[4] Art 192(3) TFEU. [5] See further section 2.3.2.

air and water pollutants such as sulphur dioxide, nitrogen dioxide, carbon monoxide, mercury, and phenols; the development of parameters for quality objectives; decisions on emission standards mainly for water pollution; and the formulation of a uniform cost assessment for measures to implement the principle that whomever damages the environment shall pay the cost.

During the period for the Second Environment Action Programme, 1977–81, the attitude towards environmental problems, compared with the period since the early 1970s, changed little. Pollutants were regarded as the most important problem and limitation of these as the primary task. Like the First Action Programme, the Second Programme emphasised control measures. The principles declared in the First Action Programme reappeared in the Second in more elaborate form. However, more attention was now paid to the conservation of natural resources.

The Third Environment Action Programme covered the period 1982–6. Its adoption in early 1983 coincided with the Community's growing attention to environmental issues and to the more active participation of the EP in environment-related discussions. This programme introduced several new elements in Community environmental policy. Perhaps the most important was recognition of the need to integrate environmental policy with other Community policies.

The Third Programme listed priorities regarding environmental protection within the Community. Protection of the marine environment in the Mediterranean, transboundary movements of hazardous waste, noise from transport, and the development of clean technologies were among the priorities in the list. Member States were invited to consider the environmental interests of developing countries when trading with them.

The Fourth Environment Action Programme was adopted in October 1987, three months after the entry into force of the Single European Act. Through this Act, a new section on environment was incorporated into the EEC Treaty. Such was the need for more stringent environmental measures that it is not surprising that this programme contained a number of new ideas which had been impossible earlier.[6] The Programme covered the period 1987–92.

In the mid-1980s, the problem of implementing and controlling environment-related directives had become a major concern and the Fourth Action Programme paid great attention to this. It had also become clear that strict rules alone would not improve the situation; they had to be accompanied by effective education and comprehensive information dissemination among the general public.

The Programme had a trans-sectoral and substance-oriented approach, in that the preventive measures were not confined to one subject within an environmental sector. Effective preventive measures focused on coordinating the fight against pollution in order to prevent pollution from one environmental sector (eg air) from being transferred to another (eg water).[7] The Fourth Programme included several

[6] S P Johnson and G Corcelle *The Environmental Policy of the European Communities* (2nd edn, Kluwer Law International, 1995) 19.

[7] Ibid.

new fields such as biotechnology and the protection of coastal areas and particularly sensitive sea areas.

2.2.2 The Fifth Environment Action Programme

The Fifth Action Programme was adopted in February 1993 and was applicable during the period 1993–2000. Its adoption took place almost one year after signature of the Treaty of Maastricht. Through this Treaty, the Community showed its increased interest and role in environmental protection in a broad sense.

The title of the Fifth Action Programme was 'Towards Sustainability'.[8] The concrete meaning of achieving sustainability was optimum reuse and recycling to avoid waste and prevent depletion of natural resources. Also sought were rationalisation of the production and use of energy, and finally a change in society's consumption and behaviour patterns.

This programme differed in several ways from previous ones. For example, it directly addressed activities that exhaust natural resources and damage the environment instead of waiting until the problem arose; sought changes in current developments and practices that could negatively affect the environment; and aspired to achieve such behavioural changes through engaging all sectors of society in a spirit of shared responsibility. The Programme often refers to the concept of shared responsibility (between the public administration, public and private corporations, and the public) and to the principle of subsidiarity.

Unlike previous programmes, which almost exclusively relied upon legislative measures, the Fifth Action Programme presents four categories of instrument.

- Legislative instruments;
- Market-based instruments (internalisation of external costs with a view to drawing the attention of both the producers and consumers to responsible use of natural resources);
- Horizontal supporting instruments (training, information, development of cleaner technology);
- Financial supporting mechanisms (financial assistance to certain Member States).

The Programme was revised in 1998 in the light of, among other things, the requirements of Agenda 21 (the action programme adopted by the United Nations Conference on Environment and Development in Rio de Janeiro in 1992), the EU's other international environmental obligations according to several international environmental agreements, and the requirements for adjustment of EU environmental legislation to the more stringent rules that Finland, Sweden, and Austria had set at the time of their accession to the European Union in 1995.[9]

[8] OJ [1993] C 138/11, para 2.

[9] Decision 2179/98/EC by the European Parliament and the Council on a Review of the European Community Action Programme for the Environment and a Sustainable Development called 'Towards a Sustainable Development' [1998] OJ L 257/1.

2.2.3 The Sixth Environment Action Programme

The Sixth Environment Action Programme was adopted by a decision of the Parliament and the Council in July 2002.[10] It covered a period of ten years, from July 2002 until 2012. Compared with the previous programmes, this programme, which consists of eight chapters, has a new character. It presents the environment dimension in a comprehensive strategy for sustainable development (this concept and the EU's strategy in this area will be further discussed presently). An explicit objective of the strategy is to decouple environmental pressures and economic development.[11]

Objectives and priorities are classified within four comprehensive policy areas: climate change; nature and biodiversity; environment, health, and quality of life; and natural resources and waste. The Sixth Action Programme also provides the means to achieve the objectives. These include the promotion of effective implementation and enforcement of EU environmental legislation; the promotion of better standards for permission, inspection, supervision, and enforcement by the Member States; and a more systematic review of the implementation of environmental legislation in the Member States. The integration of environmental protection requirements into all other policies, set out in the current Article 11 TFEU, is an important part of the Programme.

One comprehensive objective of the Programme is to stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic (human) influences on the earth's climate.

The measures under the Programme should include the development of thematic strategies and the evaluation of existing strategies for priority environmental areas that require a broad approach.

In this programme also, as in the Fifth Programme, the Commission was assigned to assess progress and prospects during the Programme's fourth year.[12] The assessment, which was presented in 2007,[13] did not make encouraging reading. The Commission underlined, among other things, that weather variations related to climate change had significant economic impacts, that the loss of biological diversity was continuing at an alarming pace, and that consumption and production patterns in the EU were generally unsustainable. It also noted that the EU was still far from achieving the objective of decoupling economic development from the negative effects caused by the use of resources.

The conclusion was that if resource use continued on the existing pattern, environmental destruction and depletion of natural resources would continue unabated.

[10] Decision 1600/2002/EC by the European Parliament and the Council on the establishment of the Community's Sixth Action Programme for the Environment [2002] OJ L 242/1.

[11] Ibid, Art 2. [12] Ibid, Art 11.

[13] Communication of the Commission—Mid-term review of the Sixth Community Environment Action Programme (30 April 2007) COM (2007) 225 final.

2.2.4 The Seventh Environment Action Programme

The Seventh Environment Action Programme was adopted in November 2013, and is to cover the period up to 2020. Its title is 'Living well, within the limits of our planet'. One major difference between this programme and the previous ones is that although the formal period of its application is limited to seven years, it provides a more long-term dimension, and sets out a vision long beyond 2020—indeed, a vision for the 2050s:

> In 2050, we live well, within the planet's ecological limits. Our prosperity and healthy environment stem from an innovative, circular economy where nothing is wasted and where natural resources are managed sustainably, and biodiversity is protected, valued and restored in ways that enhance our society's resilience. Our low-carbon growth has long been decoupled from resource use, setting the pace for a safe and sustainable global society.[14]

The structure of the Programme is similar to that of the Sixth Action Programme in dividing the guidelines into nine thematic priorities. The priority areas in the Sixth Programme are presented in an updated and more comprehensive manner. Protection of the Union's natural capital, protection of human health, effective implementation of EU environmental legislation, increased knowledge through dissemination of environmental information, internalisation of environmental costs for any societal activity, better integration of environmental concerns into other policy areas, and more effective tackling of international environmental and climate change challenges are among the priorities of the Programme.

One major action area is the creation of conditions that will help transform the EU into a resource-efficient, low-carbon economy. This goal should be achieved through measures on two fronts. On the one hand, efforts should focus on fulfilling what are called 20-20-20 targets, that is, climate and energy goals set out by the Union to be achieved by 2020[15] (see further Chapter 11). On the other hand, the environmental impact of consumption should be reduced. The latter relates particularly to problems such as the increase of food waste and the need to use biomass in a sustainable way. Thus, the Programme has a special focus on turning waste into resource and calls for indicators and targets for resource efficiency.

Another action area, which has received more attention in the present Programme, is urban planning and the sustainability of the Union's cities. The point of departure is that by 2020 some 80 per cent of the Union's citizens are expected to be living in or near a city. Urban areas normally have similar environmental problems, including poor air quality, high noise levels, greenhouse gas emissions, water scarcity, and waste. The ambition is to expand initiatives that support innovations and best practice in cities, and ensure that by 2020 most cities in the Union are implementing policies for sustainable urban planning and design.

[14] The Seventh Environment Action Programme (n 3), para 1.

[15] Subsequently the European Council has endorsed a binding EU target of at least 40 per cent domestic reduction in greenhouse gas emissions by 2030 compared to 1990, as well as targets for renewable energy and energy efficiency. European Council, 2014, European Council (23 and 24 October 2014): Conclusions on 2030 Climate and Energy Policy Framework, SN 79/14 (23 October 2014).

The Seventh Environment Action Programme certainly supplements and improves all the ideas and policies that found expression in the Sixth. It provides rich and solid ground for Member States to find necessary guidance for shaping their immediate environmental policies. It also equips the Commission with the means to plan proposals for necessary environmental legislation well beyond 2020.

2.3 Environmental Objectives and Policy

2.3.1 Historical development

One of the important announcements of the 1972 Paris Meeting of Heads of State and Government was that economic development does not constitute an end in itself, but should serve to improve quality of life.[16]

Especially during the 1980s, there was serious concern for the environment within the Community. The European Council underlined in its 1983 Stuttgart Meeting the status of environmental protection as an independent and significant objective of the Community.

At its 1985 meeting in Brussels, the European Council announced that it would make environmental protection policy an important aspect of its industrial, agricultural, social, and economic policies. This announcement found expression in changes in the EEC Treaty that were introduced through the Single European Act in 1987.

The Single European Act added several new fields to the list of areas in which the Community has competence to legislate. Among others is Title VII on 'Environment', consisting of Articles 130r, 130s, and 130t (now Articles 191–193 TFEU) of the EEC Treaty.

The Community environmental objectives were formulated precisely in Article 130r (1), announcing that the Community's environmental measures shall have the following objectives:

- to conserve, protect and improve the quality of the environment;
- to contribute towards protecting human health;
- to ensure prudent and rational utilization of natural resources.

Article 130r (1) was reformulated through the Treaty of Maastricht and was renamed Article 174. A new objective was added, namely to promote 'measures at international level to deal with regional or worldwide environmental problems'. In addition to these objectives, the preamble to the Treaty of Maastricht contained the general objective of promoting economic and social development within the framework of realisation of the internal market and of strengthened cohesion as well as environmental protection. It also brought a major change in decision-making rules,

[16] Declaration of the First Summit Conference of the Enlarged Community, Bull EC V—1972, 10, para 3.

which enabled legislative measures for the implementation of environmental objectives (ie environment-related measures) in the majority of cases to be adopted with a qualified majority of the Council instead of unanimity.

Through the Treaty of Amsterdam, the general objective in the preamble to the EC Treaty was reformulated to underline the Member States' determination to promote economic and social progress for their peoples, 'taking into account the principle of sustainable development and within the context of the accomplishment of the internal market and of reinforced cohesion and environmental protection'.[17]

Environmental objectives remained largely unchanged when the Treaty of Lisbon was adopted. The only change was the addition of 'in particular combating climate change' at the end of the fourth objective about measures at international level. Not that other issues at international level should be given lower priority than in the past: the Union has now comprehensive and legally institutionalised engagement in many environmental questions that extend beyond its borders. Note, rather, that the question of climate change has been taken up as one of particular significance because of its great implications for other policy areas and other environmental issues, as well as its far-reaching effects on society.

2.3.2 Nature and limits of the environmental objectives

The development described above has resulted in formulation of the EU environmental objectives in Article 191 (1) TFEU as follows:

> Union policy on the environment shall contribute to the pursuit of the following objectives:
>
> – preserving, protecting and improving the quality of the environment;
> – protecting human health;
> – prudent and rational utilization of natural resources;
> – promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change.

A core issue for understanding EU environmental law—and indirectly its environmental policy—is of course what is meant by 'environment' in this context. In addition to such fairly obvious things such as conservation of biological diversity and protection against pollution, the Union's environmental policy also embraces more indirect protective measures such as liability for environmental damage, penal sanctions for breach of environmental rules, access to environmental information, and the right to participate in decision-making on major industrial and other activities that may affect the environment. The cultural environment, also, is partly covered by environmental rules. For instance, assessment according to the directive

[17] The Treaty of Amsterdam, Part One, Art 1 (2).

on environmental impact assessment covers both direct and indirect effects of a project on material resources and the cultural heritage.[18]

The ambition 'to improve the environment' refers primarily to situations where the environment has been adversely affected by human activities and improvement has the character of restoration. However, it is difficult or impossible in many cases to define a 'natural' state of the environment if one by that means a state where nature is unaffected by human beings: human activities have affected nature to a greater or lesser extent virtually everywhere. And, as noted previously, the cultural environment is itself sometimes described as one of the factors to be protected by environmental law measures.

The second environmental objective is to protect human health. This eliminates any doubt about the environmental nature of measures such as the protection of drinking water; such measures are neither market-related rules nor purely environmental ones. The objective also emphasises the intimate connection between the state of the external environment and the ability of human beings as a part of biological diversity to maintain good health.[19] It is obvious that the protection of human life and health when threatened by external environmental factors and hazardous activities is a subject for environmental policy. On the other hand, protection of the working environment is separately regulated in the EU[20] (even if considerable overlapping occurs with environmental rules and particularly rules relating to the internal market). The same goes for the fight against the major health scourges.[21]

Questions relating to the protection of animals generally fall within the EU's agricultural policy, but the distinction is not entirely clear and some aspects of animal protection exist in rules adopted on the other legal bases, for example environmental protection.[22]

Rational use of natural resources is the third objective. The term 'natural resources' is not defined. In academic publications and policy documents, it receives a rather broad definition.[23] It therefore covers both living and non-living resources and includes energy. 'Rational utilisation' seems to refer to the sustainable use of natural resources. Such use requires that the rights of future generations not be compromised for the meeting of the needs of the current generation.

The last objective in Article 191 (1)—the promotion of measures at international level to deal with regional or worldwide environmental problems, and in particular

[18] Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment [1985] OJ L 175/40. Protection of the cultural patrimony must also be taken into consideration when locating landfills according to Council Directive 1999/31/EC on the landfill of waste [1999] OJ L 182/1, Annex 1.

[19] This reflects the view expressed in the 1972 Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration) (Stockholm, 16 June 1972) (1972) 11 ILM 1416 and the 1992 Rio Declaration on Environment and Development (Rio de Janeiro, 14 June 1992) (1992) 31 ILM 874.

[20] Art 153 TFEU. [21] Art 168 TFEU.

[22] See, eg, Council Directive 1999/22/EC of 29 March 1999 relating to the keeping of wild animals in zoos [1999] OJ L 94/24.

[23] J H Jans and H H B Vedder *European Environmental Law* (4th edn, Europa Law Publishing, 2012) 37.

climate change—contains no new obligation, but only confirms long-term EU practice, as witnessed in the numerous regional and international agreements to which the EU is party. The question of the geographical boundaries of environmental policy is considered further presently.

Note that objectives are just objectives, and to give them effect they must be transformed into concrete measures decided according to the legislative procedures enshrined in Article 192 TFEU. They give no clear answer as to what legislative measures shall be adopted or how they should be formed. As the Court of Justice has expressed it, in this provision only the Union's general objectives for the environment are defined since the current Article 191 TFEU leaves it to the Council of the European Union to decide what measures shall be adopted.[24]

The Council, now usually together with the EP, has thus a significant possibility to make its own assessment. For example, there is no requirement for 'equal treatment' of various environmental problems. A legal act may treat a certain negative effect on the environment of a substance (for instance depletion of the ozone layer)[25] without simultaneously treating another effect of the same substance (for instance contribution to climate change).[26]

2.3.3 Geographical limits of EU environmental policy

As already mentioned, one objective of EU environmental policy is to promote measures at international level to solve regional and global environmental problems. This raises the question of whether there is any geographical restriction at all on EU environmental policy.

Note that the word 'environment' is not geographically defined in Article 191(1) TFEU and hence there is no strict limit on the application of environmental policy. The environment of the European Union in many cases cannot be treated separately from the local, national, regional, or global environment.

A potentially more problematic question is whether EU environmental policy shall also contain measures specifically aimed at protecting the environment outside the EU even in cases where there is no clear physical connection to the environment in the Union. Where, in that case, can measures be taken?

It is a basic, if not unconditional, principle of international law that States are not allowed to enforce measures within the borders of other States' territorial jurisdiction. The legal conditions for regulating activities or measures within other States' territories are more complex. For instance, criminalising serious breaches when they occur outside a State's own territory is generally accepted and in certain cases is even prescribed in international law. In practice, however, many States, like

[24] Case C-378/08 *Raffinerie Méditerranée (ERG)* ECLI:EU:C:2010:126, para 45; Case C-379/92 *Peralta* ECLI:EU:C:1994:296, para 53.

[25] Case C-341/95 *Bettati* ECLI:EU:C:1998:353, paras 42–44.

[26] L Krämer *EU Environmental Law* (7th edn, Sweet & Maxwell, 2012) 8.

the EU, have made significant commitments as regards freedom of trade. These commitments limit their ability to stop goods from other States, for example, with reference to their environmental effects.

The rules of the World Trade Organization (WTO) render it particularly difficult to stop the import of certain goods with reference to the circumstances of their manufacture (for instance what type of wood has been used, how animals have been captured, or how carbon-intensive the production has been) rather than to the physical characteristics of the goods (eg a product containing environmental/health-hazardous chemicals).

The EU has nevertheless adopted numerous legal acts that wholly or partially aim to protect human health and/or the environment outside the Union. These are primarily legal acts that prohibit or limit the import or export of certain products. The acts do not prohibit or directly permit certain action within another State's territory, but try to influence the situation within other States by for example preventing environment-hazardous substances from reaching there, or by decreasing demand through closing the EU market to a certain product. These rules will be enforced within the EU or at its external borders even though the effects are expected to be achieved outside those borders.[27]

Many of these legal acts are based on international agreements, even though the EU normally applies protective measures against non-parties to such agreements as well. In certain cases, the compatibility of the EU rules with, for instance, WTO rules can be questioned. At the same time, international environmental agreements and strong international opinion have often been the legal and political support for the EU's line of argument. This area of law is complex,[28] but Canada and Norway initiated a dispute settlement process in the WTO claiming that EU Regulation 1007/2009 on trade in seal products is incompatible with WTO regulations.[29] The Appellate Body in its report of 22 May 2014 found that although the EU measure was provisionally justified under the public morals exception the way it was designed and applied was inconsistent with WTO law.[30]

As regards direct application, including enforcement of EU rules outside the territories of Member States, the marine environment is of particular importance. A common starting point for national legislation is that implementation of the rules should be limited to the State's territory (including the territorial sea) unless otherwise stipulated. It has long been unclear whether EU environmental rules

[27] Examples of such legislative acts are Regulation (EC) No 689/2008 of the European Parliament and of the Council concerning the export and import of dangerous chemicals [2008] OJ L 204/1; Regulation (EC) No 1007/2009 on trade in seal products [2009] OJ L 286/36.

[28] See, eg, E Vranes *Trade and the Environment: Fundamental Issues in International and WTO Law* (Oxford University Press, 2009) and D Langlet *Prior Informed Consent and Hazardous Trade: Regulating Trade in Hazardous Goods at the Intersection of Sovereignty, Free Trade and Environmental Protection* (2nd edn, Kluwer Law International, 2009) Chaps 10–12.

[29] See WT/DS400, European Communities—Measures Prohibiting the Importation and Marketing of Seal Products.

[30] Reports of the Appellate Body (22 May 2014) WT/DS400/AB/R and WT/DS401/AB/R.

can be applied in the exclusive economic zone (EEZ), which may be extended to a maximum 200 nautical miles (about 370 kilometres) measured from baselines (normally the coastlines).[31]

Case C-6/04 *Commission v United Kingdom* concerned the alleged failure of the United Kingdom to implement the EU Habitat Directive in its EEZ. According to the Commission, Member States shall implement the EU legislation in those areas where they exercise sovereign rights.[32] The Court of Justice noted that it was common ground that the United Kingdom exercises sovereign rights within its EEZ and its continental shelf, and the Habitat Directive is thereby applicable beyond Member States' territorial waters.[33] The United Kingdom had therefore to implement the directive in its EEZ.

It is difficult to interpret the decision of the Court other than that the obligation to implement the directive in the EEZ follows directly from the fact that a Member State has sovereign rights with respect to a particular issue. The conclusion is that Member States shall also implement other environmental directives in the EEZ to the extent that they are relevant and regulate an activity for which these States enjoy sovereign rights in the zone. States have such sovereign rights with respect to exploration, exploitation, conservation, and administration of living and non-living resources on the seabed and its subsoil as well as in the overlying waters in the EEZ.[34] The same applies to exploration and exploitation activities in the continental shelf.[35]

There are good reasons to apply the same argument to other activities for which a coastal State has jurisdiction. 'Jurisdiction' is a weaker concept than sovereign rights and can imply that the State's rights are directly defined and limited by international law. At the same time, jurisdiction in this case means in principle the right to set conditions for carrying out an activity due to, for instance, its expected negative impact on the environment.[36]

Not only the Court of Justice but also the EU legislator itself has foreseen the application of environmental protection directives in the EEZ. The EIA Directive[37] is, according to its wording, limited to territories of the Member States. Despite this, it follows unequivocally from the Carbon Capture and Geological Storage (CCS) Directive that the EIA Directive shall apply to the geological storage of carbon dioxide in the EEZ.[38] The EU legislator has thus seen no formal obstacle in

[31] The Exclusive Economic Zone (EEZ) is defined in the 1982 United Nations Convention on the Law of the Sea (UNCLOS) (10 December 1982, Montego Bay) 1833 UNTS 3, Section V.

[32] Case C-6/04 *Commission v United Kingdom* ECLI:EU:C:2005:626, para 115.

[33] Ibid, para 117. It should also be mentioned that the British High Court as early as 1999 held that the Habitat Directive was applicable beyond the area of the territorial sea. *R v Secretary of State for Trade and Industry ex parte Greenpeace* [1999] All ER (D) 1232.

[34] UNCLOS (n 31), Art 56. [35] Ibid, Art 77.

[36] Generally on coastal State jurisdiction in the EEZ, see Y Tanaka *The International Law of the Sea* (2nd edn, Cambridge University Press, 2015) Chaps 4 and 8.

[37] Dir 85/337/EEC (n 18), Art 3.

[38] Directive 2009/31/EC of the European Parliament and of the Council on the geological storage of carbon dioxide [2009] OJ L 140/114, particularly Art 2 and Art 7.

applying rules of environmental impact assessment in the EEZ despite the current wording of the relevant directive.

Application of the EU's substantive environmental rules in the EEZ shall of course take place with due regard to the specific conditions prevailing there. Many rules are more or less obviously designed for the Member States' terrestrial territory or adjacent coastal areas. The majority of legal acts relating to activities that take place in the EEZ should nevertheless be extended to that zone, at least with respect to their basic objectives and principles. Among those directives whose application in the EEZ seems to be rather self-evident are the EIA Directive, the Directive on the assessment of the effects of certain plants and programmes on the environment (the SEA Directive),[39] and the Industrial Emissions Directive.[40] In Case C-188/07 *Commune de Mesquer* the Court touched on the question of application of the Waste Framework Directive (then Directive 75/442/EEC) in the EEZ, but found that the case could be decided without elaborating on this matter.[41]

The Framework Directive for a Marine Strategy provides further support for the implementation of other relevant EU environmental rules in the zone.[42] The Directive, itself applicable 'up to the outermost reach of the area where a Member State has and/or exercises jurisdictional rights' according to the Law of the Sea Convention,[43] requires Member States to take necessary measures to achieve by 2020, and maintain, good environmental status in the marine environment. The objective and structure of the Directive shows that this should include application of relevant environmental legal acts within the application area of the Directive, at least when this is necessary for achieving or maintaining good marine environmental status.

The application of EU legal acts to ships belonging to non-EU member states must be consistent with the rules of the international law of the sea.[44]

It is not so clear how far the EU environmental rules shall be applicable outside Member States' exclusive economic zones, that is, on the High Seas or in the maritime zones of other States. There is no formal obstacle to EU regulation of its own Member States' activities on the High Seas as long as they are within the framework of general jurisdictional rules of the law of the sea.

The Court has held that the Union has the same possibility to legislate in respect of matters falling within its competence that a Member State has as flag State.[45]

[39] Directive 2001/42/EC of the European Parliament and of the Council on the assessment of the effects of certain plans and programmes on the environment [2001] OJ L 197/30.

[40] Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions (integrated pollution prevention and control) [2010] OJ L 334/17.

[41] Case C-188/07 *Commune de Mesquer* ECLI:EU:C:2008:359, paras 60–1.

[42] Directive 2008/56/EC of the European Parliament and of the Council establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive) [2008] OJ L 164/19.

[43] Ibid, Art 3(1) a.

[44] Case C-286/90 *Poulsen and Diva Navigation* ECLI:EU:C:1992:453, paras 9–10.

[45] Case C-405/92 *Mondiet* ECLI:EU:C:1993:906, para 12.

There may be practical reasons why EU environmental rules shall not apply to ships that navigate in a different part of the world. The applicability of EU rules in such cases cannot be taken for granted. However, there are examples of environment-related legal acts that are specifically applicable on the High Seas.[46]

2.4 Pertinent Principles

As noted previously, the First Environment Action Programme already set out principles for the protection of the environment at Community level.[47] However, it was not until the 1987 Single European Act that some of these principles were incorporated into the EEC Treaty. This was done by Article 130r (2), which contained the following principles:

1. preventive action should be taken;
2. environmental damage should as a priority be rectified at source;
3. the polluter should pay;
4. environmental protection requirements shall be a component of the Community's other policies.

The last principle was strengthened by the Treaty of Maastricht to read:

> Requirement of environmental protection must be integrated into the definition and implementation of other Community policies.

Besides, the Treaty of Maastricht added another principle to the list, namely the precautionary principle, and introduced the requirement of a high level of protection in Article 130r. The article was renamed Article 174. Through the Treaty of Maastricht, an addition to Article 2 of the EC Treaty provided that the Community shall promote sustainable and non-inflationary growth respecting the environment.

The Treaty of Amsterdam introduced important changes in principles that are now mentioned in the preamble of TFEU and are meant to be applicable to all EU activities. The principle of integration of environmental concerns in other EU policies and the principle of a high level of protection were moved to the beginning of the EC Treaty to underline the marked position of the environment in the Community. In addition, the principle of sustainable development was introduced as a new basic principle. These principles are considered today as general, with specific importance for the Union's environmental work.

Through the Treaty of Lisbon, the place of the principles was changed. Principles of precaution, prevention, rectification preferably at the source, and polluter should pay are now included in Article 191 (2) TFEU. It is also mentioned there that the point of

[46] Directive 2005/35/EC of the European Parliament and of the Council on ship-source pollution and on the introduction of penalties for infringements [2005] OJ L 255/11 provides in its Art 3(1) e that the Directive shall apply to discharges of polluting substances in the High Seas.

[47] See section 2.2.

departure of Union environmental policy is a high level of protection with due regard to various regional conditions. In Article 11 TFEU, among the general principles and outside the chapter on environment, one can find the principle of integration of environmental concerns in other policies. In the TEU, sustainable development and a high level of environmental protection are named in Article 3 (3). The subsidiarity principle is also included in Article 5 (3) of the same Treaty. The latter is not specifically an environmental principle, but may be significant for defining environmental policy.

As regards the legal effects of the principles in Article 191 (2), the Court has stated that Article 191 merely sets general environmental objectives.[48] The Court has at the same time found that the Article contains 'a series of objectives, principles and criteria which the Community legislator must respect in implementing environmental policy'.[49] The Court has also been willing to examine whether the aim of a certain legal act has really been a high level of protection,[50] or whether the act has been justified in accordance with the precautionary principle.[51] In *Sweden v Commission*, the General Court annulled a Commission directive that introduced paraquat as the active substance according to Directive 91/414 on Plant Protection Products,[52] stating, inter alia, that the precautionary principle and the principle of a high level of protection had been infringed.[53]

The Court has at the same time laid down that judicial review shall be limited to the question of whether the EU legislator in adopting a certain legal act is responsible for a manifestly incorrect assessment of conditions for the application of the article. This is because a balance is necessary between objectives and principles of the article and because of the complex implementation of the criteria.[54] Thus, the Union's legislative body has a wide discretion as regards policy formulation. It should also be noted that when these principles are treated in connection with examination of the validity of EU legal acts, they have been mainly relied on to protect the interests of individuals or to justify a contested environmental protection provision rather than to challenge a legal act for not (or not sufficiently) taking into account relevant environmental principles.[55] It is also likely that the

[48] Case C-379/92 *Peralta* ECLI:EU:C:1994:296, para 57. This has been repeated in case C-378/08 *ERG* (n 24) with respect to the principles of a high level of protection and polluter pays.

[49] Case C-284/95 *Safety Hi-Tech* ECLI:EU:C:1998:352, para 36 and Case C-341/95 *Bettati* (n 25), para 34.

[50] The Court has in this context stated that this level of protection does not need to be technically the highest possible in order to be compatible with Art 191(2). See C-341/95 *Bettati* (n 25), para 47.

[51] Case C-343/09 *Afton Chemical Limited* ECLI:EU:C:2010:419, para 62.

[52] Council Directive 91/414/EEC concerning the placing of plant protection products on the market [1991] OJ L 230/1. This directive has now been repealed and replaced by Regulation (EC) No 1107/2009 of the European Parliament and of the Council concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC [2009] OJ L 309/1.

[53] Case T-229/04 *Sweden v Commission* ECLI:EU:T:2007:217, para 262.

[54] Case C-284/95 *Safety Hi-Tech* (n 49), para 37 and Case C-341/95 *Bettati* (n 25), para 35.

[55] It applies to cases C-378/08 *ERG* (n 24), C-341/95 *Bettati* (n 25), and C-343/09 *Afton Chemical* (n 51).

possibility of examining the compatibility of legal acts with the principles of Article 191 (2) varies depending on the clarity of the various principles.[56]

The principles in Article 191 (2) certainly play a role in the interpretation of EU legal acts, both those that are a part of environmental policy and those that address environmental issues although their bases are in other policy areas. An example is the *Greenpeace France and Others* case in which the Court interpreted the then Directive 90/220/EEC on the deliberate release of genetically modified organisms on the basis of the precautionary principle.[57] The Directive was based on the legal ground for the internal market, the present Article 114 TFEU. In the *Waddenzee* case, the Court of Justice opined that the Habitat Directive shall be interpreted in the light of the precautionary principle, which was declared by the Court as one of the cornerstones of EU environmental policy.[58]

Supposedly, the principles in Article 191 lack direct effect and cannot be the basis for decision in individual cases in the same way as, for instance, Articles 34–36 TFEU on quantitative import restrictions can.[59] The legal effects of other environment-related principles will be discussed presently when relevant and in the context of the respective principle.

2.4.1 Sustainable development

The concept of 'sustainable development', which won widespread recognition by the United Nations Conference on Environment and Development in Rio de Janeiro in 1992, was put on the international agenda by the World Commission on Environment and Development. The World Commission, better known as the Brundtland Commission, had been mandated by the UN General Assembly to critically examine issues relating to environment and development, and to propose new forms of international cooperation on these issues. 'Sustainable development' is a core concept in the 1987 Brundtland Commission report 'Our Common Future' from 1987.[60] The concept is defined in this document as development that meets the needs of the present without compromising the ability of future generations to satisfy their own needs. The report also highlighted a very strong linkage between economic, social, and ecological aspects of development.

A good deal has been written in international law about the legal status of sustainable development and the possible obligations that may result from its recognition as a political or legal principle.[61] Generally, the concept has

[56] P Wennerås *The Enforcement of EC Environmental Law* (Oxford University Press, 2007) 197.
[57] Case C-6/99 *Association Greenpeace France and Others* ECLI:EU:C:2000:148.
[58] Case C-127/02 *Landelijke Vereniging tot Behoud van de Waddenzee* ECLI:EU:C:2004:482.
[59] Krämer *EU Environmental Law* (n 26) 6.
[60] World Commission on Environment and Development *Our Common Future* (Oxford University Press, 1987).
[61] See, among others, N Schrijver and F Weiss (eds) *International Law and Sustainable Development: Principles and Practice* (Martinus Nijhoff Publishers, 2004); M-C Cordonier Segger and A Khalfan, *Sustainable Development Law: Principles, Practices and Prospects* (Oxford University Press, 2004). A more theoretical analysis of what sustainable development means in a legal context is provided in M Decleris *The Law of Sustainable Development: General Principles* (Commission of the European Union, 2000).

its greatest impact by underlining the need for a long-term perspective, for example in the management of natural resources, and the need to take into account the close relationship and interaction between ecological, social, and economic factors of various types of development. Sustainable development has found expression not only in the environmental legislation of many countries, but also as a main objective in some constitutions.[62] The concept has had an obvious effect in the EU too, even if its concrete political and legal effects are not easily discernible.

The idea of sustainable development was the core concept in the Fifth Environment Action Programme. It permeated the contents of the following two Environment Action Programmes and of many other policy and legal documents adopted in the past two decades.

Prior to signing the Treaty of Amsterdam, several Member States required a direct reference to and further development of the principle of sustainable development in the EU's basic Treaty. These requirements were met partly by adding 'sustainable development' to the objectives that the Union shall try to achieve and now can be found in the objectives under Article 3 (3) TEU.

Environmental aspects were not given a dominant place when the objective of sustainable development was embodied in the Treaty. The Union shall work for the sustainable development of Europe 'based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment'.[63] However, this is compatible with the idea that economic, social, and environmental aspects must be integrated in order to achieve sustainable development. The same idea is reflected in the fact that the principle of integration of environmental concerns in other policy areas is so prominent in the TFEU. It is clear in Article 11 of that treaty, where the principle of integration of environmental concerns in the other policies of the Union is set out, that the purpose of this integration is indeed to promote sustainable development.

Sustainable development is also mentioned in the introduction to the TEU as a principle to be considered in taking measures to promote economic or social progress.[64] Interesting in this provision is that sustainable development is mentioned as a *principle* and not an aim or a concept. The choice of 'principle' in one of the EU's basic treaties reflects the Member States' opinion that 'sustainable development' has evolved into a legal principle.[65] Such an interpretation may also

[62] See, eg, Constitution of Sweden, Instrument of the Government, Section 1:2, para 3.

[63] Art 3(3) TEU.

[64] The ninth paragraph of the introduction to the EU Treaty mentions that the parties are determined to 'promote economic and social progress for their peoples, taking into account the principle of sustainable development and within the context of the accomplishment of the internal market and of reinforced cohesion and environmental protection'.

[65] This can be compared with the international difference of opinions between, for instance, the EU and the US as regards whether the precautionary principle (as it is called in Europe) is a legal principle, as claimed by the EU, or an approach, as the US emphasise, thereby referring to it as a precautionary approach.

contribute to the crystallisation of its legal consequences and confirmation of its role as a basic and guiding principle for all work within the EU. Sustainable development, together with the principle of integration, is also mentioned in the EU Charter of Fundamental Rights. According to the Charter's Article 37, a high level of environmental protection and improvement of environmental quality shall be integrated in Union policies and assured according to the principle of sustainable development.[66]

There are a number of problems with defining sustainable development in more concrete terms and translating the principle into practical measures. This is particularly the case when, for example, social and ecological interests (actually or apparently)[67] conflict.

In addition to the general wording of Article 3 TEU about what sustainable development within the EU should be based on, there is no definition of the principle/concept in the Treaty. A now repealed regulation defined sustainable development as

> improvement of the standard of living and welfare of the relevant populations within the limits of the capacity of the ecosystems by maintaining natural assets and their biological diversity for the benefit of present and future generations.[68]

This definition is interesting because it underlines the need to respect the limits of the ecosystem, and thereby the need to identify these limits and to translate that knowledge into action.

What helps us most to understand the meaning of sustainable development in the EU is the Strategy for Sustainable Development initially set out in the Conclusion to the European Council in Gothenburg in 2001. This strategy supplemented the so-called Lisbon strategy, adopted by the Council the year before with the aim of making the Union the most competitive and dynamic knowledge-based economy in the world by 2010, with an environmental dimension.

In its conclusions, the European Council described sustainable development as meeting 'the needs of the present generation without compromising those of future generations', which is very similar to the Brundtland Commission's definition.[69]

The Strategy states that decision-makers must identify each decision's positive and negative effects on other policy areas and consider them. They must further estimate a proposal's economic, environmental, and social consequences within and outside the EU when they assess the proposal's effects.[70]

[66] Charter of Fundamental Rights of the European Union [2012] OJ C 326/391, Art 37.

[67] This tends to depend on the time perspective that is adopted.

[68] Council Regulation (EC) No 3062/95 on operations to promote tropical forests [1995] OJ L 327/9.

[69] See, eg, Presidency's conclusions, Gothenburg European Council, 15 and 16 June 2011, SN 200/1/01/REV 1, para 19.

[70] Communication from the Commission—Sustainable Development in Europe for a Better World: A Strategy for Sustainable Development in the European Union (Commission's Proposal to European Council in Gothenburg) (15 May 2001) COM(2001) 264 final, Section III, para 2.

Further to a public consultation on the Strategy in 2004, the Commission drew up a communication on the progress of the Strategy and proposed orientations for its review. The European Council subsequently adopted a new Strategy for Sustainable Development at its Brussels meeting in 2006.[71] Protection of the environment is one of the four pillars of this Strategy. Although the Gothenburg European Council proved to be a major driver towards the development of sustainable development strategies in EU Member States, EU governance arrangements were not introduced until the EU Sustainable Development Strategy was renewed in 2006.

In that 2006 Strategy document, unsustainable consumption and production patterns and a non-integrating method for defining policies are identified as the main challenges for achieving sustainable development.[72] The Strategy identifies a number of 'key targets'. As regards the environment, these include 'to preserve the earth's capacity to support life in all its forms, to respect the limits of the planet's natural resources and to ensure a high level of protection and improvement of the quality of the environment'.[73] The Strategy also contains a list of the main challenges such as mitigating climate change; avoiding overexploitation of natural resources, and thereby recognition of the value of the ecosystem services;[74] and promoting sustainable consumption and production patterns. For each such challenge, there are operational objectives as well as proposed measures. The objectives in many cases reflect internationally set goals.

The Commission shall publish a report about the implementation of the Strategy for Sustainable Development every two years. The European Council should also every other year provide general policy guidelines, strategies, and instruments for sustainable development based on the Commission's progress reports.[75]

In its recent reviews of EU sustainable development, the Commission has listed a series of measures that have been adopted, but at the same time, it emphasises that unsustainable trends persist in a number of areas. Among other things, it is mentioned that demand for natural resources exceeds what the earth can manage in the long term, and that biological diversity worldwide is declining.[76] The 2015 Commission's monitoring report of the Strategy for Sustainable Development[77] emphasises the close relation between the economic, environmental, and social dimensions of the Strategy. The Commission has evaluated the progress towards sustainable development using several indicators. The conclusion about progress

[71] Communication of the Commission—Draft of Declaration on Guidelines for a Sustainable Development (25 May 2005) COM(2005) 218 final.

[72] Ibid, 2. [73] Ibid, 3.

[74] Ecosystem services are functions that are useful, and in certain cases necessary, for human beings. Some examples are insects that pollinate cultivations, water that is purified through natural earth layers, or plants that produce oxygen.

[75] EU's Renewed Strategy for Sustainable Development, 10917/2/06 REV 2, 26–7.

[76] See, eg, Mainstreaming sustainable development into EU policies: 2009 Review of the European Union Strategy for Sustainable Development (24 July 2009) COM(2009) 400 final, 2.

[77] Eurostat, *Sustainable Development in the European Union: 2015 Monitoring Report of the EU Sustainable Development Strategy* (Publications Office of the European Union, 2015).

since 2001, when the Strategy was launched, and in the past five years is that weak economic activity in the short term has reduced some pressure on the environment, but overall progress is mixed.

It can be questioned whether the ecological dimension has really been treated as equal to or as a long-term condition for the economic and social dimensions of EU policies. However, the EU has not been markedly more successful in achieving the economic aims of the Treaty of Lisbon than with the ecological aims of sustainable development.

In summary, there is inflation in the use of 'sustainable development' in the EU's various policies, and it is difficult to give the concept a clear content in every specific situation. At the same time, sustainable development is gaining more and more the character of a legal principle. The challenge ahead is to link it clearly to concrete measures. Regarding the environmental dimension of the principle, this linkage can inter alia be achieved through defining—according to the best scientific knowledge—the ecological limits that human activities must respect to be sustainable in the long run, and then connecting them to effective policy instruments. It is also important that the Court of Justice finds the opportunity to directly address the possible legal content of sustainability.[78]

2.4.2 Subsidiarity

The question of whether the EU should act in a particular area is primarily a question of distribution of competence between the Union and its Member States. As is discussed in more detail in Chapter 4, there are three possible situations:

1. The Member States have transferred competence in a particular area to the EU, and the latter has exclusive competence. These include the common commercial policy and the conservation of marine biological resources under the common fisheries policy (Art 3 TFEU);
2. The Member States have not transferred any power, and the EU therefore lacks all power. This option has become increasingly less relevant as the EU's competence has been expanded. One example where the EU lacks power is family law issues, which are still generally under the exclusive competence of the Member States;
3. Member States have transferred a part of their competence, and both they and the EU have competence. Protection of the environment falls into this category. (Art 4 TFEU)

[78] The Court has in several cases touched upon aspects of sustainability or indirectly confirmed the principle's legal relevance. See, eg, Case C 43/10 *Nomarchiaki Aftodioikisi Aitoloakarnanias and Others* ECLI:EU:C:2012:560 in which the Court interpreted the condition in Art 6(4) of the Habitats Directive (92/43/EEC) that when a plan or project is carried out for imperative reasons of overriding public interest, the Member State must take all compensatory measures necessary in the light of the objective of sustainable development.

Yet it is not enough to maintain that the EU has jurisdiction in a certain area. It should also be examined whether it is appropriate that the EU, rather than Member States, should act. The subsidiarity principle was introduced in the Treaty to answer this question. For obvious reasons, the question is not relevant in areas where the EU has exclusive competence, since here Member States cannot claim to act themselves. However, the principle is potentially important in areas such as the environment, where States may wish to take action themselves and have the right to do so as long as the EU has not already regulated the issue in question. The principle thus functions to set limits to when the Union shall use its competence in areas where it shares legislative power with the Member States.

The subsidiarity principle was first introduced in the Single European Act in 1987.[79] At that time, it was applicable only to environmental measures. The Treaty of Maastricht upgraded it to a general principle of the EC Treaty. In connection with the Treaty of Amsterdam, a protocol[80] was adopted to clarify when and how subsidiarity could be applied. Through the Treaty of Lisbon, the subsidiarity principle was moved to Article 5 (3) TEU. A new protocol on application of this and the proportionality principles was appended to the Treaty of Lisbon.[81]

According to Article 5 (3) TEU, there are two conditions for the EU to be able to take measures in areas where the Union has non-exclusive competence. The first condition is that the objectives of the proposed action cannot be sufficiently achieved by the Member States at any level. Secondly, these objectives can, because of their scale and effects, be better achieved at Union level. The Protocol requires the Commission to explain in its proposal why it is necessary that the EU take action. The reasons for concluding that an objective can be better achieved at the Union level shall be substantiated by qualitative and, wherever possible, quantitative indicators.[82]

In practice, it is difficult to assess whether a measure's objective can be better achieved at Union level, not least because the effects of not regulating an issue within the EU can differ greatly in various parts of the Union.[83] Member States such as Denmark, the Netherlands, Sweden, Germany, and Austria, which typically have a more ambitious environmental policy, would probably take measures resembling Union ones if the EU did not act. For some other Member States, the lack of EU rules would probably lead to no measures being taken. Acting at EU level can

[79] Art 130r(4).

[80] Protocol on the Application of Subsidiarity and Proportionality Principles [1997] OJ C 340/105.

[81] Protocol on the Application of Subsidiarity and Proportionality Principles [2010] OJ C 83/206.

[82] Ibid, Art 5.

[83] The choice of the most appropriate forum for a decision is essentially a political one. The role of the Court in deciding the legal application of the principle is not an easy one. In Case C-58/08 *Vodafone Ltd and Others* ECLI:EU:C:2010:321, the Court was asked to opine whether Regulation No 717/2007 on roaming on public mobile telephone networks within the Community ([2007] OJ L 171/32) had been adopted in violation of the subsidiarity principle. The Court referred in its judgment to recital 14 in the preamble of the said regulation, and held that the need for Union action was clear in this case (para 77). The reliance of the Court on a preamble provision for the interpretation of the principle has been criticised. See M Horspool and M Humphreys *European Union Law* (8th edn, Oxford University Press, 2014) 121.

therefore be the only way to ensure that a reasonably effective policy for dealing with a specific environmental problem will be carried out throughout the Union.[84]

Environmental legal acts normally fulfil the requirements of the subsidiarity principle.[85] Many environmental problems are by their nature transboundary, and coordinated or harmonising measures are more effective options. Besides, many environmental protection measures may have negative effects on the internal market and competition among Member States. EU-level action is then a way to do away with such distortions since all EU actors will be subject to the same requirements, or at least common minimum rules, depending on the form of the legal act.

The Protocol on the Application of Subsidiarity and Proportionality Principles provides in addition a possibility for national parliaments to review a legislative proposal that is incompatible with the subsidiarity principle.[86] This is consistent with the fact that many consider the subsidiarity principle more appropriate for *ex ante* political control rather than for *ex post* judicial control of whether the EU could really adopt a legal act.

2.4.3 Proportionality

According to Article 5 (4) TEU, '[u]nder the principle of proportionality, the content and form of Union action shall not exceed what is necessary to achieve the objectives of the Treaties.'

One way to accomplish this is to choose instruments that do not unnecessarily restrict possibilities for Member States to regulate a question themselves.

Several important environmental legal acts have the character of framework directives and thus leave a relatively wide scope for Member States to adopt concrete measures needed to achieve the objectives of the EU law.[87]

Regulations are often used when the main purpose is to harmonise the relevant legislation to ensure the smooth functioning of the internal market, including cases where it is rules for the protection of the environment that are harmonised. Draft legislative acts must contain an explanation of how the principle of proportionality has been taken into account.[88]

The succinct wording of Article 5 (4) TEU provides a limited picture of the functions that the proportionality principle fulfils in EU law. It is not only the freedom of action of individual Member States that is partly protected by this principle. Even those obligations that EU rules create for individuals are subject to the requirement of proportionality. When there is a possibility to choose between various measures, the measure that is least onerous must be chosen. Possible disadvantages for individuals may not be disproportionate in relation to the intended objective

[84] Krämer *EU Environmental Law* (n 26) 18.
[85] Jans and Vedder *European Environmental Law* (n 23) 14.
[86] C Barnard and S Peers (eds) *European Union Law* (Oxford University Press, 2014) 112–13.
[87] Two examples are Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for Community action in the field of water policy [2000] OJ L 327/1 and Dir 2008/56/EC (n 42).
[88] Protocol on the Application of Subsidiarity and Proportionality Principles (n 81), Art 5.

of the measure.[89] In order to be proportionate, the measure the EU takes 'should be appropriate for attaining the objective pursued and must not go beyond what is necessary to achieve it'.[90]

The fact that one particular group is affected more than another group by a particular legislative measure does not necessarily mean that the measure is disproportionate or discriminatory, provided that it is intended to solve a problem of public interest.[91] In agricultural policy, which includes many measures to protect health and the environment, the EU legislator has a specific possibility to make discretionary evaluations. This means that a measure in this area can be declared invalid only when it is obviously inappropriate in relation to the objective that a competent institution seeks to achieve.[92]

A third area where the principle of proportionality is of great significance is the assessment of whether measures taken by individual Member States can be accepted, despite the fact that they restrict freedom of movement within the EU. In addition to a legitimate objective (for instance protection of the environment or human health), a measure that prohibits or limits the possibility of importing a product from another Member State must also be necessary for attaining the said objective.[93] The measure cannot be considered necessary if another measure could accomplish the same objective, but is less trade-restrictive. This aspect of proportionality principle will be discussed in more detail in Chapter 3.

2.4.4 A high level of protection

According to Article 3 TEU, the Union shall aim at a high level of protection and improvement of the quality of the environment. This is reflected in more specific provisions in the TFEU. The principle of a high level of protection was introduced in the EEC Treaty through the Single European Act in 1987 in the provision that today is Article 114 (3) TFEU. It was to be applicable to measures that were adopted on the basis of the then Article 100a whose main purpose was the realisation of the internal market. Through the Treaty of Maastricht the principle was introduced also in the then Article 174 EC (current Article 191 TFEU) in the chapter on environmental policy. Although the basic idea is similar in both articles, the wording of the obligation in Article 191 (2) TFEU is different from that of Article 114 (3). According to the latter, 'the Commission in its proposals … concerning health, safety, environmental protection and consumer protection, will take as a

[89] Joint Cases C-133/93, C-300/93, and 362/93 *Crispoltoni, Natale and Pontillo* ECLI:EU:C:1994:364, para 41. The Court has repeated this position in its later practice. See, eg, Case C-343/09 *Afton Chemical* (n 51), para 45; Joined Cases C-581/10, and C-629/10 *Nelson and Others* ECLI:EU:C:2012:657, para 71.

[90] Case C-491/01 *British American Tobacco* ECLI:EU:C:2002:741, para 122.

[91] Case C-453/08 *Karanikolas and Others* ECLI:EU:C:2010:482, para 55.

[92] This follows from 'the political responsibility that has been entrusted the legislator in this area according to the Treaty'. Case T-334/07 *Denka International* ECLI:EU:T:2009:453, para 139 with more references.

[93] Case C-400/96 *Harpegnies* ECLI:EU:C:1998:414, para 34.

base a high level of protection, taking account in particular of any new development based on scientific facts'. The EP and the Council shall also seek, within their respective powers, to achieve this goal. Since it is the latter two institutions that adopt legislative acts—often after making significant changes to the Commission's original proposal—there is no requirement that a high level of protection actually be reflected in the legislation, as opposed to the proposals. It goes without saying that it is difficult to make a judicial review of whether the EP and the Council have actually sought a high level of protection.

A different wording is used in Article 191 (2), according to which 'Union policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Union.' While Article 191(2) is about EU environmental policy as a whole, the Court of Justice, as mentioned earlier, has been prepared to examine whether the purpose of a legal act is really a high protection.[94] In *Sweden v Commission*, the General Court annulled the Commission's directive that permitted the use of paraquat as an active substance under Directive 91/414 on Plant Protection Products. The basis for that was, among other things, that the principle of high level of protection had been infringed.[95] This was particularly interesting since Directive 91/414, and thereby the Commission's amending directive, both rested on the legal basis for agricultural policy. The principle of high level of protection is not expressly mentioned there, but applies because of the integration of environmental concerns in all other EU policy areas under Article 11 TFEU.

Despite these and other cases in which the principle of high level of protection has been used by the Court,[96] the EU legislator undoubtedly enjoys a considerable discretion when determining how to aim at a high level of protection. This follows not least from the fact that there is no clear definition of what constitutes such a level. Obviously, a high level of protection is not necessarily the same as the technically highest possible level.[97]

In the absence of a clear standard, it seems reasonable that a relative assessment can be indicative. The level that environmentally more ambitious Member States apply in their legislation should then be the basis for the EU's own measures. This level may be adopted and implemented with due regard to regional differences within the European Union. Statements in various policy documents such as declarations and action programmes can also contribute to the definition of what a high level is.[98]

One must also consider the scientific knowledge about the risks of the activities and substances involved. In an interpretation of the provision of the Treaty concerning high level of consumer protection (current Article 169 TFEU), the General

[94] Case C-341/95 *Bettati* (n 25), para 47 and Case C-284/95 *Safety Hi-Tech* (n 49), para 49.
[95] Case T-229/04 *Sweden v Commission* (n 53), para 262.
[96] For a thorough account of such cases, see N de Sadeleer *EU Environmental Law and the Internal Market* (Oxford University Press, 2014) 52–6.
[97] Case C-341/95 *Bettati* (n 25), para 47 as well as Case C-284/95 *Safety Hi-Tech* (n 49), para 49.
[98] Krämer *EU Environmental Law* (n 26) 12.

Court has stated that for a high level of protection, the institutions of the Union shall 'ensure that their decisions are taken in the light of the best scientific information available and that they are based on the most recent results of international research'.[99]

A Member State that is not satisfied with the protection level that an EU legal act provides may take a more stringent protective measure so long as the EU act is one based on EU *environmental* competence. However, if the main objective of the legal act providing the high level of protection is *the internal market*, the situation is different. This will be dealt with in Chapter 4.

The principle of high level of protection can also affect the interpretation of legal acts. The Court of Justice has, for example, found, in the context of interpreting a national authority's discretion to oppose a shipment of waste, that the objective of promoting a high level of protection might be undermined if the authority concerned were prevented by EU law from relying on its own standards, representing a high level of environmental protection.[100]

2.4.5 Precaution

The traditional approach to environmental problems has been to take measures to prevent, reduce, or control *proven* harm to the environment through, for instance, emission standards or limits on how a substance should be handled. This approach to problems reached a turning point when the precautionary principle was added, through the Treaty of Maastricht, to the list of Community environmental principles in the then Article 174 (2) EC. It is clear from what is now Article 191 (2) TFEU that the precautionary principle is fundamental for EU environmental policy.

Application of the principle is, however, not limited to those areas where the EU has adopted acts based on legal grounds for environmental protection. The jurisprudence of the Court of Justice shows that the principle is also, inter alia, applicable when EU institutions adopt protective measures for human health within the framework of the common agricultural policy.[101] This follows from the fact that action to protect human health is part of environmental policy and that this must be integrated into the definition and implementation of other policies.[102] The precautionary principle is also expressed in legal acts based on other grounds than environmental policy.[103] The principle is relevant wherever

[99] Case T-13/99 *Pfizer Animal Health* ECLI:EU:T:2002:209, para 158.

[100] Case C-277/02 *EU-Wood-Trading* ECLI:EU:C:2004:810, para 47.

[101] See, for example, Case T-229/04 *Sweden v Commission* (n 53), which relates to the implementation of Directive 91/414/EEC concerning the placing of plant protection products on the market (n 82), which rests on the legal basis for the common agricultural policy.

[102] Case T-13/99 *Pfizer Animal Health* (n 99), para 114.

[103] See, for example, Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) [2006] OJ L 396/1 which is based on the legal basis for the internal market (current Art 114 TFEU). Its provisions are explicitly based on the precautionary principle. Art 1(3).

protection of environment or health comes to the fore in the framework of EU activities.

In 2000, the Commission published a communication on the precautionary principle.[104] The Communication, which is not legally binding, informed about the Commission's approach in applying the principle, and sought to clarify a misunderstanding as regards the distinction between reliance on the precautionary principle and the search for zero risk as well as to prevent unwarranted recourse to the principle as a disguised form of protectionism.[105]

The Communication sets out that the precautionary principle should be considered within a structured approach to risk analysis that includes risk assessment, risk management, and risk communication.[106]

Those measures that can be adopted according to the precautionary principle are also mentioned in the Communication. If a measure is deemed necessary, it should be proportional to the level of protection, non-discriminatory in application, and compatible with other measures already adopted. Such measures should also be based on examination of the potential advantages and disadvantages of an action or inaction, and be subject to review in the light of new scientific information. The measures should have a provisional nature, but can remain in force as long as the scientific information is incomplete, imprecise, and inconclusive, and as long as the risk is considered too high to expose the population to.[107]

Note that the precautionary principle shall be applied when a risk *has not yet been fully demonstrated* but it does not apply with respect to purely hypothetical risks that lack a scientific basis.[108] The concept of risk should be understood as the degree of probability that use of a product or a procedure will adversely affect a legally protected interest. That there are scientific opinions that militate against the existence of risk or against the fact that it may exceed a level deemed acceptable is not in itself a barrier to action as long as there is corresponding scientific evidence that the risk does exist or exceeds an acceptable level.[109]

In a case concerning measures for the protection of human health, the Court of Justice found that a correct application of precautionary principle requires:

> first, identification of the potentially negative consequences for health of the proposed use of processing aids, and, secondly, a comprehensive assessment of the risk to health based on the most reliable scientific data available and the most recent results of international research.[110]

As mentioned previously, incorrect application of the precautionary principle can result in the annulment or setting aside of the legal act. It can also affect the implementation of EU law or national rules that implement such law, through an

[104] Communication of the Commission on the precautionary principle (2 February 2000) COM(2000)1 final.

[105] Ibid, 8. [106] Ibid, 12. [107] Ibid, 17–20.

[108] Case T-13/99 *Pfizer Animal Health* (n 99), para 146 (see the earlier paragraphs of the judgment for reference to relevant case law).

[109] Case T-13/99 *Pfizer Animal Health* (n 99), para 393.

[110] Case C-333/08 *Commission v France* ECLI:EU:C:2010:44, para 92.

interpretation of the law in the light of the principle. An example is the *Waddenzee* case where the Court of Justice stated that the Habitat Directive shall be interpreted in the light of the precautionary principle. The result was that a probability or a risk that a plan or project is likely to have a significant effect on a protected site exists 'if it cannot be excluded on the basis of objective information that the plan or project will have significant effects' on a relevant area.[111]

In another case, the Court has examined the legality of a directive adopted by the Commission to temporarily limit, as a precaution, the use of fenarimol, an active substance in plant protection products.[112] The legality of the use of the precautionary principle as a basis for adoption of the Commission's directive[113] was challenged by a producer of the plant protection products. The Court held that since there was some scientific uncertainty regarding the assessment of the effects on the endocrine system of substances such as fenarimol, the Commission's decision to restrict the use of that substance could not be considered to be a manifestly erroneous application of the precautionary principle.[114] Given the numerous scientific studies that had been invoked to prove the invalidity of the Commission's decision, the Court's conclusion seems to imply a wide scope of the precautionary principle.[115]

2.4.6 Preventive action

The prevention principle means that the EU should try to prevent environmental damage by acting before it has already occurred. It has long been known that prevention of environmental damage is to be preferred to restitution after the damage has occurred. This is partly because it is often impossible to repair damage to the environment and partly because even if it is possible to repair or in a way manage the damage, the costs of prevention are normally much lower than the costs when the damage is already a fact.

The principle became important in the Community through the Third Environment Action Programme. Today, it is in Article 191 (2) TFEU as one of the principles on which EU environmental policy is based. The EU has a number of tools to implement the principle. The usual ones are to establish emission limits, impose licensing requirements, and introduce economic instruments. The preventive approach has also led to the development of rules on, for example, environmental impact assessment and environmental audit. The objective of these instruments is to combine economic development and the desire to prevent environmental problems.

[111] Case C-127/02 *Waddenzee* (n 58), para 44.
[112] Case C-77/09 *Gowan* ECLI:EU:C:2010:803.
[113] Commission Directive 2006/134/EC amending Council Directive 91/414/EEC to include fenarimol as active substance [2006] OJ L 349/32.
[114] Ibid, para 79.
[115] For an overview of other relevant cases and the difference between different kinds of cases, see de Sadeleer *EU Environmental Law and the Internal Market* (n 96) 76–89.

Article 192 says nothing about how prevention should take place, so the legal implications of the principle are not clear. A number of legal acts explicitly refer to a duty to take preventive measures. Among others, waste-related EU rules require that negative impacts of the generation and management of waste shall be prevented,[116] while the Industrial Emissions Directive requires that pollution shall be avoided through appropriate preventive measures.[117]

2.4.7 Proximity

Another principle closely linked to that of prevention is the principle that environmental damage should as a priority be rectified at source: the proximity principle. According to Article 191 (2) TFEU, this is a basis for EU environmental policy. The main purpose is to tackle environmentally harmful effects as soon as possible, before they have spread or caused long-term damage. The Court of Justice has opined that according to the precautionary principle and the principle of prevention, it is the obligation of the EU and the Member States to prevent, reduce, and, to the extent possible, eliminate pollution and nuisance at source by taking measures to eliminate the known risks.[118] It has been questioned whether this principle actually permeates the whole corpus of EU environmental rules, which today are largely based on quality standards that, as opposed to emission norms, cannot be considered as guarantees of rectification at source.[119]

In practice, the principle is used primarily in connection with regulating waste.[120] In the *Vallon Waste* case, the Court of Justice based its justification of a regional prohibition of waste import on the proximity principle.[121] The Court admitted that as regards waste, there is a close relation between the principle of proximity and the principle of self-sufficiency, set out in the Basel Convention on Control of Transboundary Transport and Final Disposal of Hazardous Waste.[122] The Court referred to the same principle in a case between the Commission and Germany. There, it concluded that a German law stipulating that waste should be disposed of within the national territory reflected 'the pursuit of an objective which is in conformity with the principle laid down in Article [191 (2) TFEU] that environmental damage should, as a priority, be rectified at source'.[123]

[116] Directive 2008/98/EC of the European Parliament and of the Council on waste [2008] OJ L 312/3, Art 1.

[117] Directive 2010/75/EU on industrial emissions (n 40), Art 3.

[118] Joined Cases C-175/98 and C-177/98 *Lirussi and Bizzaro* ECLI:EU:C:1999:422, para 51.

[119] Krämer *EU Environmental Law* (n 26) 24–6.

[120] The principle has been invoked by the Commission before the EU Court in certain other cases that have had nothing to do with waste. An example is Case C-438/07 *Commission v Sweden* CLI:EU:C:2009:196.

[121] Case C-2/90 *Commission v Belgium* ECLI:EU:C:1992:310, para 34.

[122] Ibid, para 35. Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal ('Basel Convention') (Basel, 22 March 1989) 1673 UNTS 57.

[123] Case C-422/92 *Commission v Germany* ECLI:EU:C:1995:125, para 34.

The principle has been integrated in the EU legal acts on waste that contain detailed rules on how Member States can restrict the freedom of movement for waste with reference to principles of self-sufficiency and proximity.[124] In brief, the Member States have significant possibilities to prevent import of waste transported for disposal (for instance in a landfill). On the other hand, when waste is transported to be recycled, the principles of self-sufficiency and proximity are not applicable.[125]

Under EU waste-related rules, Member States are also obliged to establish a common network of disposal installations for waste so that the EU as a whole becomes self-sufficient in respect of managing its waste and also that each Member State approaches this aim.[126] As regards non-hazardous household waste that in principle does not require treatment in specialised installations, Member States must seek to establish a network for disposal as closely as possible to where the waste is produced. They can organise the networks through cooperation between regions or with other States according to the principle of proximity.[127]

Today, there appears to be no possibility, except for the procedures based on the EU's specialised rules relating to transport of waste, to limit such transport among Member States by reference to the principles of proximity and self-sufficiency.[128]

2.4.8 Polluter-pays principle

Another principle with preventive effect is the polluter-pays principle. This was expressed as early as in the Community's First Environment Action Programme and has since been repeated in all subsequent action programmes. It was added to the EEC Treaty through the Single European Act in 1987 and is now included in Article 191 (2) TFEU, according to which it is a fundamental principle of Union environmental policy. The principle has been described in varying ways in the various EU languages. Some languages refer to 'polluter pays',[129] whereas the English version is 'polluter should pay'. The Swedish text has a more absolute wording and says 'polluter shall pay'. However, normally there is no question of an absolute requirement.

The principle means that the costs of pollution or other environmental damage, including the costs of restoring the environment after damage, shall be borne by whoever has caused them, namely the polluter, and not by taxpayers or the wider community. The principle will contribute partly to the achievement of the EU's environmental goals, and partly to the prevention of distortion of competition among various actors in the Union (which would be the case if certain actors but not all were forced to pay for the pollution their activities had caused).[130]

[124] See Regulation (EC) No 1013/2006 of the European Parliament and of the Council on the shipment of waste (OJ [2006] L190/1).

[125] Case C-203/96 *Chemische Afvalstoffen Dusseldorp and Others* ECLI:EU:C:1998:316, para 50.

[126] Dir 2008/98/EC (n 116), Art 16.

[127] Case C-297/08 *Commission v Italy* ECLI:EU:C:2010:115, para 66.

[128] Case C-221/06 *Stadtgemeinde Frohnleiten* ECLI:EU:C:2007:657, para 67.

[129] This is the case of the Danish language. In the German text, it is only referred to as 'Verursacherprinzip' and in the French text as 'le principe du pollueur-payeur'.

[130] Jans and Vedder *European Environmental Law* (n 23) 50.

The principle can be implemented through rules requiring operators or other polluters to take necessary measures and pay the costs for the prevention of pollution. An example is the requirement of best available techniques. Another, and perhaps more refined expression of the principle, is when the costs to counter the pollution or restore environmental damage are channelled to the polluters through fees, taxes, liability schemes, and similar economic instruments. This is a marked feature of EU waste-related acts as well as the Environmental Liability Directive.[131]

A problem when applying this principle is that it is often unclear who should be considered as polluter. Is it, for example, the car driver, car manufacturer, producer or distributor of fuel, or perhaps all of them who are polluters in relation to car traffic environmental damage? Should the pollution be a breach of a legal norm so that the principle can be invoked? The actual formulation of EU law indicates that these questions are answered differently in different areas, and other factors rather than the principle of polluter pays have very often been decisive for the definition of the policy. The principle may be politically very challenging to apply—which, for example, is clearly expressed in the resistance in many quarters against a carbon tax—and in some cases administratively cumbersome to implement. It is not least due to the difficulty in most cases of identifying the source of existing pollution and allocating responsibilities in an acceptable manner among several contributing polluters. At the same time, for new emissions, pollution should be paid by the polluters irrespective of whether it comes from point sources such as industrial plants or from diffuse sources such as transport.

In practice, both the EU and the Member States have often ignored the principle, while both government subsidies and EU funds have been used to ensure that environmental requirements are met.[132]

In judicial practice, the principle is mainly important when there are explicit rules in secondary EU legislation that require a certain category of persons responsible for pollution (for instance holders or producers of waste or operators of a certain activity) to bear a cost. The principle can here affect the interpretation of these rules.

In Case C-188/07, the Court of Justice relied on the polluter-pays principle to interpret Article 15 of the then Directive 75/442 on waste.[133] According to this article, the costs of disposal of waste, in accordance with the polluter-pays principle, shall be borne by the holder, who gets a collector to handle the waste, and/or the previous holders or producers of the product that has occasioned the waste. However, holders of waste that is the result of, for instance, an accidental spillage of hydrocarbons at sea may not be required to bear the cost of disposal if this cost has reached the compensation ceiling. The national legislator, the Court held, must therefore admit that the cost in such cases will be borne by

[131] Directive 2004/35/CE of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage [2004] OJ L 143/56.
[132] Krämer *EU Environmental Law* (n 26) 27.
[133] Case C-188/07 *Commune de Mesquer* (n 41).

the producer of the product from which the waste originated. In practice, the Court's finding was hardly grounded in an independent principle of polluter-pays because its decision can be seen simply as a way to achieve the Directive's explicit objective.

Directive 75/442 on waste has since been replaced by Directive 2008/98/EC. Here, the costs of waste management shall be borne, with respect to the polluter-pays principle, by the original producer of the waste or its current or previous holder. To have the costs charged to the producer of the product causing the waste or to have the distributors of such products share the costs is now something that each Member State may decide, but it is not required.[134] This can be seen as a step back from the Court's statement that the producer of the product from which the waste originated must be required to bear the costs if no other party later in the life cycle of the product can be required to do so.

In Case C-254/08 dealing with principles for allocation of the costs of handling and disposal of waste, the Court of Justice once again interpreted Article 15 of what was then Directive 2006/12. The Court held that Member States must ensure that in principle all those who use the municipal waste disposal service in their capacity as 'holders' collectively bear the overall costs of disposal.[135] However, Member States have considerable possibility to allocate the costs based on estimates of how much waste different categories of holder generate rather than on the basis of what holders have actually presented for collection. A breach of EU law will arise only if this leads to some holders being required to pay for costs that are manifestly disproportionate to the volumes or nature of the waste they produce.[136]

A further aspect of the polluter-pays principle is close to the proportionality principle. When responsibility for the pollution is claimed, other sources of pollution (rather than those that are regulated by a certain legal act through which the polluter-pays principle is implemented) shall be taken into account, and nobody should be obliged unnecessarily to eliminate the pollution. For this assessment, scientific and technical data and the characteristics of the area concerned shall be considered.[137]

Operators should not have to bear the costs of remedying pollution to which they themselves have not contributed.[138] It is nevertheless allowed, when implementing the Environmental Liability Directive (2004/35), to presume that there is a relation between certain operators and a proven pollution, because the operator's installations are located close to the polluted area. This applies even when pollution has a diffuse character. However, in accordance with the polluter-pays principle, in order for such a causal link to be presumed the competent authority must have access to reliable information justifying its presumption, such as the operator's installation being located near the area affected by the identified pollution, and that the pollutants found are used by the operator in his activities.[139]

[134] Dir 2008/98/EC (n 116), Art 14.
[135] Case C-254/08 *Futura Immobiliare and Others* ECLI:EU:C:2009:479, paras 46 and 52.
[136] Ibid, para 57.
[137] Case C-293/97 *Standley and Others* ECLI:EU:C:1999:215, para 52.
[138] Case C-378/08 *ERG* (n 24), para 67. [139] Ibid, para 70.

2.4.9 Integration

The need to integrate environmental concerns into other EU policies was addressed in the Third Environment Action Programme in the early 1980s, after it became known that the Community's agriculture, transport, and regional policies were having a significant impact on the environment.[140] Amendment of the EEC Treaty in 1987 through the Single European Act introduced integration as a basic environmental principle. It was then stipulated that 'Environmental protection requirements shall be a component of the Community's other policies'.[141]

At this time the provision on the integration of environmental protection requirements was the only so called horizontal clause in the Treaty. Since then several others have been introduced.[142] In the Treaty of Maastricht, the principle was reformulated as: 'Environmental protection requirements must be integrated into the definition and implementation of other Community policies.'

The Treaty of Amsterdam took another step forward and made the integration requirement an independent general principle in Article 6 of the EC Treaty. Moreover, the phrase 'in particular with a view to promoting sustainable development' was added to the existing wording of the Article. This helped to provide some legal weight to the concept of sustainable development in EU law.

After the amendments through the Treaty of Lisbon, the principle is now in Article 11 TFEU, according to which: 'Environmental protection requirements must be integrated into the definition and implementation of the Union policies and activities, in particular with a view to promoting sustainable development.'

The principle is also included in the EU Charter of Fundamental Rights, Article 37, with a slightly more conservative, but at the same time more concrete, wording: 'A high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development.'

As early as during the preparatory work of the conference that adopted the Treaty of Amsterdam, the Commission undertook to draw up environmental impact assessments for all its future proposals that could be expected to affect the environment.[143] Under the UK Presidency, the European Council in June 1999 established the principle that all important Commission proposals must contain an assessment of the measure's potential impact on the environment.[144]

[140] For a description of the development of the integration principle, see A Comolet and A Decininck 'Le principe d'intégration. Historique et interpretation' (2001) 5 *Revue Européenne de Droit de l'Environnement* 152–67; N Dhondt *Integration of Environmental Protection into other EC Policies—Legal Theory and Practice* (Europe Law Publishing, 2003).

[141] Art 130r(2) in the then EEC Treaty.

[142] For an overview, see de Sadeleer *EU Environmental Law and the Internal Market* (n 96) 22–5.

[143] This was mentioned in a declaration appended to the Final Act of the Conference. See document CONF 400/97 CAB, 68. A similar declaration had been appended to an annex to the Treaty of Maastricht.

[144] Presidency's conclusions, document SN 150/1/98 REV 1.

In the Sixth Environment Action Programme, integration of environmental concerns was a central theme and was discussed in relation to several policy areas, including agriculture and fisheries, but also areas such as development aid, trade policy, and the financial sector.[145] In its mid-term review of the Sixth Action Programme for the Environment in 2007, the Commission concluded that the results had been mixed. While the agriculture sector was highlighted as an area where fundamental reforms were carried out towards seeing farmers as stewards of nature, integration in other policy areas was considered less successful. In practice, the principle had various implications and was applied in different ways within different policy areas.[146] Impact assessment of legislative measures was regarded by the Commission as a key to effective integration. In the review document, the Commission committed itself to developing a strategic framework for the integration of environmental concerns into other policies.[147]

The integration principle is also a core concept in the Seventh Environment Action Programme. Improvement of environmental integration and policy coherence is a priority objective of the Programme.[148] Accordingly, the achievement of many other priority Programme objectives is conditioned on a more effective integration of environmental and climate-related considerations into other policies. To improve environmental integration, the Programme shall ensure that by 2020 sectoral policies at Union and Member State level are developed and implemented in a way that supports relevant environment and climate-related targets and objectives. A basic requirement to achieve this objective is assessments of the environmental, social, and economic impacts of policy initiatives at appropriate Union and Member State levels to ensure their coherence and effectiveness.[149]

What legal implications, then, does the principle of integration of environmental considerations have? A fundamental problem, as with any other legal principle, is that the Treaties lack a clear definition of what implications integration really has for drafting and implementing the Union's policies and activities. Unless environmental concerns are sufficiently taken into consideration in the other policy areas, the environmental policy will achieve very little or no result. However, how far, and how, should environmental concerns be integrated? It is quite clear that they do not in principle trump other policy objectives.[150] They need, however, to be taken into account in a structured manner when a policy is being developed and measures are adopted within all other policy areas. Work on impact analyses, not

[145] Dec 1600/2002/EC (n 10) 1.

[146] See, among others, S Mahmoudi 'Integration of Environmental Considerations into Transport' in R Macrory (ed) *Reflections on 30 Years of EU Environmental Law: A High Level of Protection* (Europe Law Publishing, 2006) 183–95; R Williams 'Community Development Corporation Law, Sustainable Development and the Convention on Europe: From Dislocation to Consistency?' (2005) 4 *Yearbook of European Environmental Law* 303–75.

[147] Mid-term review of the Sixth Community Environment Action Programme (n 13), section 5.3.

[148] Seventh Environment Action Programme (n 3), Art 85.

[149] Ibid, Art 89.

[150] Krämer *EU Environmental Law* (n 26) 20.

only environmental but also of the social impacts of measures, is now the subject of relatively comprehensive and regularly revised guidelines.[151]

The principle can also be seen as a requirement for achieving objectives within other policy areas through measures that are as environmentally friendly as possible.[152] It has also been suggested that if there is no environmentally sound alternative, the question should be whether a measure is indeed indispensable for achieving a Union objective. If not, the measure should not be taken.[153]

This, however, does not answer the question of what is meant by 'environmental protection requirement', that is, *what* should be integrated. The clearest expression of such requirements is the objectives and principles set out in Article 191 (1) and (2) TFEU. This covers environmental objectives and principles on which a policy should be based, such as the precautionary principle and the polluter-pays principle. When defining what should be integrated into other policy areas, it is important that the EU environmental policy should aim at a high level of protection. Such a level should be used for assessing the measures within other policy areas. The factors set out in Article 191 (3) should reasonably be taken into account since they form an integrated part of environmental policy. They include scientific and technical data as well as the potential benefits and costs associated with taking or not taking measures.

Although the integration principle is relatively elusive and necessarily leaves a wide margin of appreciation to the EU institutions, it still has some real impact on the interpretation and application of EU law. One effect relates to the choice of legal basis for legal acts. As will be discussed further in Chapter 4, the principle of integration of environmental concerns means that measures aimed at protecting the environment may also be taken within policy areas other than environmental, and may thereby be based on other legal grounds than Article 192 TFEU.

The Court of Justice noted this already in 1999 in a case relating to a legal act[154] which after the Chernobyl disaster limited imports of agricultural products from third countries. Greece questioned the legal basis of the act and argued that since its main purpose was to protect human health, it should be based on the equivalent of the current Article 192 and not on the article relating to the common trade policy, which the Council had decided. The Court rejected this argument by referring to the fact that all EU measures must satisfy the requirements of environmental protection, and a measure did not need to be considered as a part of environmental policy just because it concerned environmental protection.[155]

[151] See European Commission, Guidelines on Impact Assessment (19 May 2015) SWD(2015) 111 final, Chapter III.

[152] Jans and Vedder *European Environmental Law* (n 23) 22.

[153] Dhondt *Integration of Environmental Protection* (n 140) 478.

[154] Regulation (EEC) No. 3955/87 on the Conditions Governing Imports of Agricultural Products Originating in third countries following the accident at the Chernobyl nuclear station [1987] OJ L 371/14. This regulation has been repealed and now replaced by Council Regulation (EC) No 733/2008 on the conditions governing imports of agricultural products originating in third countries following the accident at the Chernobyl nuclear power station (Codified version) [2008] OJ L 201/1.

[155] Case 62/88 *Hellenic Republic v Council* ECLI:EU:C:1990:153, para 20.

In another example, the Court confirmed that in fisheries policy, conservation measures, including those aimed at protecting species other than those that are caught, could be considered as a part of fisheries policy as long as the question is mainly one of regulating fishing activities.[156]

As indicated above in the discussion of principles underlying environmental policy, these principles can be used for interpreting provisions within other policy areas. This is an expression of integration of environmental requirements. Among others, the Court of Justice has interpreted Directive 90/220/EEC on the deliberate release into the environment of genetically modified organisms in the light of the precautionary principle.[157] In the *Concordia Bus* case,[158] the Court interpreted Directive 92/50/EEC on the coordination of procedures for the award of public service contracts[159] in the light of integration policy. The case concerned the possibility of imposing environmental requirements in public procurement, which the relevant directive at that time did not expressly permit. The Court, referring to the integration principle, found it could not be ruled out that the contracting authority could apply environmental protection criteria when assessing the most economically advantageous tender.[160]

The Court thus paved the way for a formal amendment of EU law concerning public procurement. This enabled Member States to include environmental protection requirements in the list of criteria for assessing the most economically advantageous tender. The integration principle thereby has the effect that legal rules outside the area of environmental policy can be interpreted in light of the Treaties' environmental protection requirements.

A third issue concerning effects of the integration principle is whether the legality of a legal act can be challenged on the ground that the principle of environmental integration has not been considered. EU institutions' broad discretion to make their assessments when they apply this type of requirement in complex situations suggests that a legal act could be annulled on this basis only in exceptional cases.[161]

In *Sweden v Commission*, the General Court annulled one of the directives that had been issued by the Commission with reference, inter alia, to an infringement of the principle of a high level of protection.[162] The Commission's measure was based on the legal ground for the agriculture policy. The requirement of high level of protection could therefore be only the result of integration of environmental protection considerations in this policy area. In practice, the annulment was the result of applying the integration requirement.

[156] Case C-405/92 *Mondiet* (n 45). [157] Case C-6/99 *Greenpeace France* (n 57).

[158] Case C-513/99 *Concordia Bus Finland* ECLI:EU:C:2002:495.

[159] Council Directive 92/50/EEC relating to the coordination of procedures for the award of public service contracts [1992] OJ L 209/1. This directive was repealed in 2004 by Directive 2004/18/EC, which in turn is now replaced by Directive 2014/24/EU of the European Parliament and of the Council on public procurement and repealing Directive 2004/18/EC [2014] OJ L 94/65.

[160] Case C-513/99 *Concordia Bus* (n 158), para 57.

[161] Jans and Vedder *European Environmental Law* (n 23) 26.

[162] Case T-229/04 *Sweden v Commission* (n 53), para 262.

2.4.10 Sincere cooperation

According to Article 4 (3) TEU, the Union and Member States shall, pursuant to the principle of sincere cooperation and in full mutual respect, assist each other in carrying out tasks which flow from the Treaties. Member States shall take all necessary measures to ensure that their obligations under the Treaties and EU secondary legal acts are fulfilled. They shall also assist the Union to fulfil its undertakings, and refrain from any measure that may jeopardise fulfilment of the Union's objectives. The duty of sincere cooperation has in practice been interpreted as an obligation on Member States' competent authorities to use any available means to achieve the Union's objectives.[163] Practical and political obstacles to implementation of EU law cannot normally be considered. In a case concerning a Member State's failure to act against individuals whose actions undermined the free movement of goods within the EU, the Court of Justice held:

> It is for the Member State concerned, unless it can show that action on its part would have consequences for public order with which it could not cope by using the means at its disposal, to adopt all appropriate measures to guarantee the full scope and effect of Community law so as to ensure its proper implementation in the interests of all economic operators.[164]

Member States have also specific obligations to act or refrain from acting when the Commission has already submitted a proposal to the Council, which, even if not yet adopted by the Council, constitutes the starting point for a coordinated EU measure.[165]

The duty of sincere cooperation is also applicable in situations when Member States are entitled to enter into legal obligations in relation to third countries.[166] The implications of the principle of sincere cooperation for a Member State's action in the framework of an international environmental protection convention to which both the EU and the Member State are parties were dealt with by the Court of Justice in Case C-246/07, *Commission v Sweden*.[167] This will be discussed further in Chapter 5.

The principle of sincere cooperation is reciprocal; hence, the Commission, also, is obliged to cooperate with Member States and not to take measures that prevent them from fulfilling their obligations under EU law.[168] The Court of Justice found in the *Intertanko* case that according to the principle of sincere cooperation and the international-law principle of good faith, it had to interpret a directive and a convention to which EU is a party in the light of the MARPOL 73/78 Convention,[169] even though the EU itself was not a party to the latter but Member States were.[170]

[163] Case C-165/91 *van Munster* ECLI:EU:C:1994:359.
[164] Case C-265/95 *Commission v France* ECLI:EU:C:1997:595, para 56.
[165] Case C-804/79 *Commission v United Kingdom* ECLI:EU:C:1981:93, para 28.
[166] Case C-266/03 *Commission v Luxemburg* ECLI:EU:C:2005:341, para 58.
[167] Case C-246/07 *Commission v Sweden* ECLI:EU:C:2010:203.
[168] Case C-523/04 *Commission v Netherlands* ECLI:EU:C:2007:244, para 34.
[169] International Convention for the Prevention of Pollution from Ships as amended by its 1978 protocol (MARPOL 73/78) 1340 UNTS 184.
[170] Case C-308/06 *Intertanko and Others* ECLI:EU:C:2008:312, para 52.

In this way, the risk of Member States being forced to choose between acting according to EU law or to international law obligations is eliminated or at least reduced.

EU institutions are also required to cooperate sincerely with each other, for example in relation to consultation procedures.[171] One expression of this is that the Council cannot decide about accession to an international convention in a way that prevents the Commission from complying with its international law obligations.[172]

2.4.11 Equal treatment and legal certainty

Among general principles of EU law that have an impact on defining environmental policy and its implementation is the principle of non-discrimination on the ground of nationality and the principle of equal treatment. These two principles are discussed here briefly and only with respect to their relevance for environmental policy.[173]

According to Article 18 TFEU, any discrimination based on nationality shall be prohibited in all areas covered by the Treaty. Court of Justice practice shows that not only overt discrimination because of nationality—or, in the case of a company, its seat—but also all covert forms of discrimination that, by the application of other distinguishing criteria, lead to the same result, are forbidden.[174] In the *ČEZ* case, the Court examined the admissibility of Austrian rules that provided different possibilities for bringing an action for discontinuation of disturbances from a company's activity depending on whether it was located in the country where the complaint was lodged or in another EU Member State. According to these rules, a company permitted to carry out an activity (in this case operate a nuclear power plant) in another Member State could be the subject of an action before the Austrian courts regarding discontinuation of disturbances or risk of disturbances to real estate near the facility. A company that operated a similar facility in Austria could not be the subject of such a claim. The Court found this to be contrary to the principle of prohibition of discrimination on grounds of nationality.[175]

According to the Court, the principle of equal treatment means that similar situations should not be treated differently, and that different situations should not be treated alike unless there is objective justification for such treatment.[176] A difference in treatment is justified if it is based on a reasonable and objective criterion. The difference should also be connected with a final objective pursued by the legislation and be proportionate to the objective it seeks to achieve.[177] If the difference in treatment is the result of legal acts adopted by the EU, it is up to the

[171] Case C-65/93 *Parliament v Council* ECLI:EU:C:1995:91, para 23.

[172] Case C-29/99 *Commission v Council* ECLI:EU:C:2002:734, para 69.

[173] For a comprehensive study of these principles, see Horspool and Humphreys *European Union Law* (n 83) 125–9; Barnard and Peers *European Union Law* (n 86) 206–12.

[174] Case C-115/08 *Land Oberösterreich v ČEZ* ECLI:EU:C:2009:660, para 92.

[175] Ibid, para 139.

[176] Case C-344/04 *International Air Transport Association* ECLI:EU:C:2006:10, para 95 and the other cases referred to there.

[177] Case C-127/07 *Arcelor Atlantique and Lorraine and Others* ECLI:EU:C:2008:728, para 47.

EU legislator to show that the objective criteria cited as reasons for different treatment are fulfilled.[178] The principle of equal treatment has been applied in several environment-related cases, particularly those related to the EU system for trade in emission rights for certain greenhouse gases.[179]

Another basic EU law principle in this context is the principle of legal certainty or rule of law, according to which it is required that legal rules shall be clear and precise so that everybody can be informed unambiguously of his/her rights and obligations. However, given that the meaning and scope of legal rules are normally somewhat imprecise and unclear, the Court of Justice seems not to have a very high requirement on clarity.[180] Legal certainty has not in most cases been considered as an obstacle to the application of EU environmental legal acts.[181] The requirement of clarity applies even for national measures that transpose EU law.[182]

2.5 Institutional Development

As mentioned earlier, the Commission is responsible for the development of EU law through drawing up legislative proposals. It is also responsible for monitoring how Member States apply EU law, and whether the intended objectives are achieved.[183] Certain legal acts specifically require that the Member States shall report to the Commission the experience they have gained from implementing the legal act, and the Commission shall propose possible amendments if necessary.[184]

The main responsibility for pursuing environmental issues within the Commission lies with the Directorate-General for the Environment (DG ENV). This directorate has some 450 employees, fewer than those in the environmental departments of some Member States.[185] Given its tasks, the DG ENV is a very small organisation. Despite this, the EU manages to produce a considerable number of new or updated legal acts in the field of environment protection. However, it can be questioned whether the resources available to follow up the twenty-eight Member States' implementation of the 200 or more environmental legislative acts for which DG ENV is responsible even approach a reasonable level.

Environmental issues are dealt with also in other parts of the Commission, not least in the Directorate-General for Climate Action (DG CLIMA). This was established in 2010 through a decision to separate the responsibility for climate questions from the DG ENV and to place it in a separate DG. Some 160 persons work in DG

[178] Ibid, para 48.
[179] See, among others, Case C-127/07 *Arcelor Atlantique* (n 177) and Case T-263/07 *Estonia v Commission* ECLI:EU:T:2009:351.
[180] Case C-110/03 *Belgium v Commission* ECLI:EU:C:2005:223, paras 30–31.
[181] See, for instance, Case C-226/08 *Stadt Papenburg* ECLI:EU:C:2010:10, para 45.
[182] Case C-296/01 *Commission v France* ECLI:EU:C:2003:626, para 55.
[183] Article 17(1) TEU.
[184] See, for instance Dir 2004/35/EC (n 31), Art 18; Dir 2009/31/EC (n 38), Arts 27 and 38.
[185] Staff figures of DG ENV at <http://ec.europa.eu/dgs/environment/index_en.htm> (visited 10 January 2016).

CLIMA. Their tasks are, inter alia, to develop and implement the EU's system for trade in emission rights for greenhouse gases, and to coordinate EU participation in international climate negotiations.[186] Environmental issues are also dealt with in the Directorate-General for Fisheries (DG Mare), which is responsible for the common fisheries policy and the integrated marine policy, and in the Directorate-General for Agriculture and Rural Development (DG AGRI), which is responsible for the common agricultural policy (CAP).

Other important actors for the implementation of EU environmental policy are the European Environmental Agency (EEA) and its partnership network, the European Environment Information and Observation Network (EIONET), which was established by the Council in 1990.[187] The Agency's main tasks are to provide the EU and the Member States with the objective information and technical and scientific support that they need to carry out an effective environmental policy, to assess the results of environmental protection measures, and to inform the public of the state of the environment.[188]

The EEA coordinates the activities of EIONET, which consists of national environment information networks and contact focal points in the Member States.[189] The said activities should make it possible to collect information needed to describe the present and future situation of the environment's quality, the burden it bears, and its sensitivity.[190] The Agency is legally autonomous, but maintains close relations with the EU institutions and with the Member States. It is headed by a Director-General, and has a board consisting of one representative from each Member State, two representatives from the Commission, and two scientists appointed by the EP.[191] The Agency's headquarters are in Copenhagen.

At Member State level, too, a structure has developed to facilitate the correct implementation of EU environmental legal acts. This structure consists of several networks of representatives of national authorities. The oldest is the EU Network for the Implementation and Enforcement of Environmental Law (IMPEL),[192] which is an informal association of the environmental authorities of the European Union Member States, acceding, and candidate countries of the EU, EEA, and EFTA countries. IMPEL was established in 1992. Its informal character is important and

[186] Website of DG CLIMA, <http://ec.europa.eu/clima/about-us/mission/index_en.htm> (visited 20 December 2015).

[187] Council Regulation (EEC) No 1210/90 on the establishment of the European Environment Agency and the European Environment Information and Observation Network [1990] OJ L 120/1, which was replaced by Regulation (EC) No 401/2009 of the European Parliament and of the Council on the European Environment Agency and the European Environment Information and Observation Network [2009] OJ L 126/13.

[188] Regulation (EC) No 401/2009 of the European Parliament and of the Council on the European Environment Agency and the European Environment Information and Observation Network [2009] OJ L 126/13, Art 1.

[189] Ibid, Art 4. [190] Ibid, Art 3.

[191] Ibid, Arts 8 and 9. Even European States that are not members of the EU may have representatives in the Agency's board and network. This is the case of Iceland, Norway, and Turkey. See <www.eea.europa.eu/about-us/governance/management-board/list-of-management-board-members> (visited 10 October 2015).

[192] <www.impel.eu> (visited 10 December 2015).

constantly emphasised. However, its structure resembles that of any other international organisation. Its highest organ is the General Assembly, consisting of representatives of forty-eight environmental authorities in thirty-four countries. The General Assembly's main task is to determine the policy of the Association, and decide on the budget and working programmes. IMPEL has also a board, which is its executive body and responsible for its management. The IMPEL Secretariat takes care of the network's communications. (See further section 5.3.)

Two more relevant networks, established on the private initiative of judges and prosecutors, are the EU Forum of Judges for the Environment (EUFJE),[193] established in 2004, and the European Network of Prosecutors for the Environment (ENPE),[194] established in 2012. IMPEL, EUFJE, and ENPE have close relations with the Commission and consider their work and function as a significant component of the overall efforts for effective implementation of the Union's environmental legal acts.

2.6 Financial Instruments

The EU's financial mechanisms with direct or indirect impact on the protection of the environment can be divided into two groups:

- European structural and investment funds (ESI Funds), whose main objective is the structural adjustment of the EU's least developed regions, rural areas, areas affected by industrial transition, and regions which suffer from severe and permanent natural or demographic handicaps (Art 174 TFEU);
- mechanisms specifically addressing environmental protection.

The first category consists of the European Regional Development Fund (ERDF), the European Social Fund (ESF), the Cohesion Fund (CF), the European Agricultural Fund for Rural Development (EAFRD), and the European Maritime and Fisheries Fund (EMFF). The purpose and activities of these funds are regulated in a common regulation.[195] It lays down, among other things, objectives and general principles governing the Union's support through the ESI Funds to Member States by co-financing multi-annual programmes for increasing economic, territorial and social cohesion. In order for a Member State to receive financial support from the Funds, it shall first organise a partnership with regional or local authorities including, among others, economic and social partners, environmental partners, and

[193] <www.eufje.org> (visited 10 December 2015).
[194] <www.environmentalprosecutors.eu> (visited 10 December 2015).
[195] Regulation (EU) No 1303/2013 of the European Parliament and of the Council laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund and laying down general provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund and the European Maritime and Fisheries Fund and repealing Council Regulation (EC) No 1083/2006 [2013] OJ L 347/320.

non-governmental organisations (Art 5). For this purpose, Partnership Agreements shall be concluded. The Operational Programme that is drawn up by a Member State and in cooperation with its partners shall be adopted by the Commission (Art 26). The Regulation contains detailed provisions relating to the implementation and evaluation of the Programmes.[196]

The ESI Funds shall focus their support on a limited number of common thematic objectives. Article 9 of the Regulation lists 11 such objectives, four of which are directly relevant to the environment. They are

- the shift towards a low-carbon economy in all sectors;
- climate change adaptation, risk prevention, and management;
- preserving and protecting the environment and promoting resource efficiency;
- promoting sustainable transport and removing bottlenecks in key network infrastructures.

More importantly, Article 8 of the Regulation deals under the title of sustainable development with more specific environmental dimensions of the act. The Article provides that '[t]he objectives of the ESI Funds shall be pursued in line with the principle of sustainable development and with the Union's promotion of the aim of preserving, protecting and improving the quality of the environment, as set out in Article 11 and Article 191(1) TFEU, taking into account the polluter pays principle'. It further underlines that in preparing and implementing Partnership Agreements and programmes, the Member States and the Commission 'shall ensure that environmental protection requirements, resource efficiency, climate change mitigation and adaptation, biodiversity, disaster resilience, and risk prevention and management are promoted'.

Climate change objectives take a special place in this context. Article 8 sets out that Member States requesting financial aid from the Funds shall provide information on the possible contribution of the support to achieving climate change objectives.

The Funds provide more than €44 billion to Member States every year within the framework of the Operational Programmes. These are presented by individual Member States and adopted by the Commission. The programme documents set out a number of development strategies with a coherent set of priorities to be implemented with assistance from a fund.

Compared to previous fund organisation, Member States have in recent years been given greater freedom to allocate the funds provided. This has given them greater opportunity to upgrade or downscale environmental issues, depending on the political considerations in individual States.

[196] According to Arts 47–51, the Member State establishes a monitoring committee, which submits annual implementation reports to the Commission. Ex ante evaluation shall be carried out by the Member States whereas ex post evaluation shall be done either by the Commission or by the Member States in close cooperation with the Commission. See Arts 55 and 57.

The EU has been unwilling to establish special funds for the protection of the environment. However, several financial instruments with the main objective of environmental protection have been created since the early 1980s. The most significant of these is LIFE. LIFE was established through Regulation 1973/92,[197] which has been replaced by several other regulations, the latest being Regulation 1293/2013 establishing the LIFE Programme.[198] The Regulation defines the LIFE Programme and divides it into two sub-programmes, one for environment and the other for climate action. The Sub-programme for Environment has three priority areas, namely environment and resource efficiency, nature and biodiversity, and environment governance and information (Art 9). The specific objectives of these priority areas are defined in Articles 10–12 of the Regulation. The Sub-programme for Climate Action also has three priority areas, namely climate change mitigation, climate change adaption, and climate governance and information (Art 13).

The objective of LIFE is to contribute to the shift towards a resource-efficient, low-carbon, and climate-resilient economy, to the protection and improvement of the quality of the environment, and to halting and reversing biodiversity loss. This includes support of the Natura 2000 network and tackling ecosystem degradation. It further aims at supporting implementation of the Seventh Environment Action Programme (Art 3). The LIFE Programme has a budget of €3.4 billion for the period 2014–20.

Further Reading

P G G Davis *European Union Environmental Law, An Introduction to Key Selected Issues* (Routledge, 2004)

A Epineg 'EU Environmental Law: Sources, Instruments and Enforcement—Reflections on Major Developments over the Past 20 Years' (2013) 20 *Maastricht Journal of European and Comparative Law* 403–22

A Jordan and C Adelle (eds) *Environmental Policy in the EU: Actors, Institutions and Processes* (3rd edn, Earthscan, 2013)

S Kingston (ed) *European Perspectives on Environmental Law and Governance* (Routledge, 2014)

J Scott (ed) *Environmental Protection, European Law and Governance* (Oxford University Press, 2009)

[197] Council Regulation (EC) No 1404/96 amending Regulation (EEC) No 1973/92 establishing a financial instrument for the environment (Life) [1996] OJ L 181/1.

[198] Regulation (EU) No 1293/2013 of the European Parliament and of the Council on the establishment of a Programme for the Environment and Climate Action (LIFE) and repealing Regulation (EC) No 614/2007 [2013] OJ L 347/185.

3

Free Movement of Goods and the Room for Member State Action

3.1 Introduction

To what extent does EU law allow individual Member States to take measures of their own in the field of environmental policy? This question may arise for two general reasons: either because the EU has not taken regulatory action in relation to a specific problem, or because a Member State deems the EU action insufficient to address its particular situation or to achieve the level of protection for which it aims. The room for individual Member States to take measures in areas subject to EU secondary law is dealt with in Chapter 4. But already here it may be noted that the choice of legal basis for the secondary law acts in question is decisive for what room remains for action by individual Member States. When such specific EU legislation exists, any acts taken by Member States will primarily be assessed against that legislation rather than against the provisions of the Treaties. As the EU regulates ever more policy areas it is a reasonable assumption that the significance of the Treaties in defining the leeway for individual Member States gets ever smaller. But two factors maintain the significance of the Treaties in this context. One is that specific issues which a Member State wishes to regulate may in fact fall outside the purview of existing secondary law even when they at first glance appear to be covered by it. It is not sufficient to conclude that a particular policy area is regulated by secondary EU law; one must also ascertain whether the specific issue, within that policy area, which a Member State wishes to regulate is actually dealt with by the pertinent EU legislation. This is further discussed in section 4.5.

The second important factor is that EU legal acts that have environmental protection as their legal basis allow, on certain conditions, the Member States to take more protective action at the domestic level. However, such measures must always be compatible with the general requirements of the Treaties (see section 4.2.3). So once a national measure has passed the test of compatibility with EU secondary law, it needs also to be assessed against the Treaties.

The legal issue that most often arises when a Member State intends to take environmental protection measures within an area that has not (yet) been regulated by the EU, or where existing secondary law allows for more protective national measures, is whether such measures could restrict the free movement of goods within the Union. For obvious reasons this only becomes relevant when an environmental

measure is in some way product- or market-related and can be expected to affect the functioning of the internal market. For this reason, pure nature-protection measures may not be affected by this discussion. However, surprisingly many types of measures, as well as omissions, are deemed to have an effect on the internal market.

While the Treaty provisions on the free movement of goods are what most frequently affect measures taken or contemplated by Member States in order to protect human health or the environment, such measures may in some cases also conflict with other Treaty rules. The EU regimes on state aid and competition are two such areas. However, they will, for reasons of space, not be addressed here.[1] Another pertinent area, environmental taxes, is briefly discussed towards the end of this chapter.

3.2 Quantitative Restrictions on Trade and Measures Having Equivalent Effect

A fundamental tenet of what is now the European Union has from the outset been that the constituent States should form a common (eventually 'internal') market. According to the current Article 26 TFEU, the internal market shall comprise an area without internal frontiers in which the free movement of goods, persons, services, and capital is ensured in accordance with the provisions of the Treaties. A cornerstone in the creation of the internal market is the fact that the EU, in accordance with Article 28 TFEU, is a customs union with respect to all trade in goods. This involves a prohibition between Member States of customs duties on imports and exports and of all charges having equivalent effect, and the adoption of a common customs tariff in their relations with third countries. The actual prohibition on customs duties on imports and exports and charges having equivalent effect is found in Article 30 TFEU. The prohibition, motivated by the simple fact that customs duties make imported goods more expensive than rival domestic goods, also applies to customs duties of a fiscal nature.[2] As to charges having equivalent effect, the Court of Justice has made clear that 'any pecuniary charge, however small and whatever its designation and mode of application, which is imposed unilaterally on domestic or foreign goods by reason of the fact that they cross a frontier' qualifies as such a charge and is thereby prohibited.[3] This applies even if the charge 'is not imposed for the benefit of the State, is not discriminatory or protective in effect and if the product on which the charge is imposed is not in competition with any domestic product'.[4] The prohibition has direct effect.[5]

[1] On state aid generally, see K Bacon (ed) *European Union Law of State Aid* (Oxford University Press, 2013), and more specifically on State aid and environmental policy N de Sadeleer *EU Environmental Law and the Internal Market* (Oxford University Press, 2014) Chap 12. The relationship between environmental protection and competition is addressed in S Kingston *Greening EU Competition Law and Policy* (Cambridge University Press, 2011) and in de Sadeleer ibid, Chap 11.

[2] That the EU applies common customs tariff duties fixed by the Council on a proposal from the Commission is established in Art 31 TFEU.

[3] Case 24/68 *Commission v Italy* ECLI:EU:C:1969:29, para 9.

[4] Ibid, para 9.

[5] Case 26/62 *Van Gend en Loos* ECLI:EU:C:1963:1. On direct effect see section 1.6.

While a prohibition on customs duties is relatively simple to implement, it has been shown to be much more challenging to deal with the abundance of national rules and other measures that limit the flow of goods between the Member States. One important way to address this issue is by harmonising the Member States' national rules in specific areas. This is discussed in Chapter 4. However, there are also more general and directly applicable rules regarding free movement to be found in the TFEU.

Article 34 TFEU sets out a general prohibition on quantitative restrictions on imports and measures having equivalent effect. A similar prohibition pertaining to exports can be found in Article 35 TFEU. The rule on exports, which has been construed somewhat differently than that on imports, will be dealt with more briefly later in this chapter since restrictions on exports are much less prevalent than those on imports.

The Court of Justice established in the early 1960s that the prohibition on quantitative restrictions and measures having equal effect has direct effect and thus is to be applied in the Member States' legal orders without first having to take the form of secondary EU law and being implemented by the Member States.[6]

What then is a quantitative restriction? Unsurprisingly, it is a measure that limits the quantity of a certain good that may be imported or exported. The quantity may be expressed as a number of units (eg 10,000 cars per annum) but also, for example, in terms of weight (eg 10,000 tonnes of wheat per annum), volume, or value (eg copper at a value of €100 million per annum). The most extreme forms of quantitative restrictions are import and export bans, since the quantity is then set to zero. These kinds of measures are nowadays unusual within the EU. What still has major practical significance is that 'measures having equivalent effect' to quantitative restrictions are also covered by the prohibitions in Articles 34 and 35 TFEU.

As early as 1974, in *Dassonville*, the Court of Justice established that the notion of measures having equivalent effect to quantitative restrictions covers all measures that are 'capable of hindering, directly or indirectly, actually or potentially' trade between Member States.[7]

Article 34 TFEU can be described as requiring the Member States to respect the principles of non-discrimination and mutual recognition with respect to goods that are legally manufactured and sold in other Member States.[8] The fact that a certain good may be sold in one Member State thus entails a presumption that it may be legally marketed also in the other Member States.[9]

One important consequence is that product requirements concerning, for example, designation, form, size, weight, composition, presentation, labelling, or packaging are regarded as measures with equivalent effect, and thus prima facie prohibited, if applied to goods that have been lawfully manufactured and marketed

[6] Ibid.

[7] Case 8/74 *Dassonville* ECLI:EU:C:1974:82, para 5. On direct effect see further section 1.6.

[8] See eg Case C-110/05 *Commission v Italy* ECLI:EU:C:2009:66, sec 34 with references to further case law.

[9] Case 120/78 *Rewe-Zentral* ECLI:EU:C:1979:42 ('Cassis de Dijon'), para 14.

in another Member State. The main rationale for this is that imported goods will have to meet the product requirements of the Member State of import in addition to those that apply in the Member State of origin, whereas domestically produced goods only have one set of requirements that must be met. This will typically make it more costly or burdensome to get imported goods into the market of any specific Member State compared to goods originating from that State. Importantly, it is not necessary for a national measure to make a distinction between goods based on their origin in order for it to qualify as a measure of equivalent effect.[10] This is highly relevant for environment and health-related product requirements, since they do typically not distinguish between products based on their origin. They do, however, often impose requirements regarding composition and/or labelling of products, for example by prohibiting the presence of certain chemicals in a product or by requiring that a product be labelled in a certain way.

If prior approval is required in order to, for example, import, acquire, market, keep, transport, or sell a certain type of good, that in itself is deemed to constitute a measure with equivalent effect.[11] The same applies if the offering for sale of certain goods requires that the goods have been included on an 'authorised list', since that makes the marketing more difficult and more expensive and consequently hinders trade between the Member States.[12]

Also, national measures that may not at first glance be seen to lay down requirements for goods have been found to constitute measures of equivalent effect. A telling example is the so-called *Danish bees* case.[13] In this case a prohibition against the keeping of certain bee species[14] on Læsø, an island constituting less than 0.5 per cent of the territory of the Member State in question, that is, Denmark, was deemed to be a measure having equivalent effect. The measure did indeed prevent, for example, French bees from being imported into Læsø.

The notion of 'measure having equivalent effect' is not reserved for active measures by Member States. Also, failure by a Member State to take adequate steps to prevent obstacles to the free movement of goods caused by private individuals may qualify. For example, a decision not to prohibit a demonstration by environmental protesters, which resulted in the complete closure for more than twenty-four hours of a major link for trade between northern Europe and the north of Italy, has been found to constitute a measure of equivalent effect to a quantitative restriction.[15] A similar conclusion has been drawn with respect to a Member State's failure to take all necessary and proportionate measures in order to prevent threats and violence directed against transports of fruit and vegetables from other Member States to supermarkets selling such goods.[16] The Court of

[10] Joined cases C-267/91 and C-268/91 *Keck and Mithouard* ECLI:EU:C:1993:905, para 15.
[11] Case C-400/96 *Harpegnies* ECLI:EU:C:1998:414, para 30.
[12] Case C-24/00 *Commission v France* ECLI:EU:C:2004:70, para 23.
[13] Case C-67/97 *Bluhme* ECLI:EU:C:1998:584.
[14] Any species of bee other than Læsø brown bee or *Apis mellifera mellifera.*
[15] Case C-112/00 *Schmidberger* ECLI:EU:C:2003:333.
[16] Case C-265/95 *Commission v France* ECLI:EU:C:1997:595.

Justice has accordingly found that Article 34 TFEU does not merely require the Member States themselves to abstain from adopting measures or engaging in conduct liable to constitute an obstacle to trade. When read with the principle of sincere cooperation in what is now Article 4 (3) TEU, it also obliges them to 'take all necessary and appropriate measures to ensure that that fundamental freedom is respected on their territory'.[17]

It is not only importation or exportation to or from a specific Member State that enjoys protection. The Court of Justice has also made clear that the fundamental principle of free movement of goods, as elaborated in what are now Articles 34 and 35 TFEU, entails the existence of a general principle of free transit of goods within the EU.[18] In line with this, a prohibition against heavy vehicles carrying certain categories of goods travelling along a road section of paramount importance has been found to violate the right to free transit. The prohibition, which was deemed capable of limiting trading opportunities between northern Europe and the north of Italy, was therefore regarded as constituting a measure having equivalent effect to quantitative restrictions.[19] Also, the obligation for each Member State to ensure the free movement of products in its territory by preventing any restriction caused by the acts of individuals applies without the need to distinguish between cases where such acts affect the flow of imports or exports and those affecting merely the transit of goods.[20]

Considering the broad interpretation given to the phrase 'measure having equivalent effect to quantitative restrictions', it seems capable of capturing almost any national measure with even the vaguest connection to goods and markets. Some delimitation was, however, provided by the Court of Justice in *Peralta*.[21] It concerned an Italian prohibition for any vessel, regardless of nationality, to discharge hydrocarbons or certain other substances harmful to the marine environment in territorial waters and internal maritime waters, including ports. Having noted that the legislation in question made no distinction according to the origin of the substances transported and did not have as a purpose to regulate trade in goods with other Member States, the Court concluded that 'the restrictive effects which it might have on the free movement of goods are too uncertain and indirect' for it to be regarded as restricting trade between Member States.[22] However, this should not be understood as there being a specific magnitude below which trade-impeding effects are automatically accepted, that is, a *de minimis* rule. A measure capable of hindering imports from another Member State will be considered a measure having equivalent effect even though 'the hindrance is slight' and even if the products can be marketed in other ways.[23] The significance of *Peralta* is merely that such an effect may not be too uncertain or indirect if it is to be considered a measure having equivalent effect.

[17] Ibid, para 32.
[18] Case C-320/03 *Commission v Austria* ECLI:EU:C:2005:684, paras 63–65.
[19] Ibid, paras 66–69. [20] Case C-112/00 *Schmidberger* (n 15), para 60.
[21] Case C-379/92 *Peralta* ECLI:EU:C:1994:296. [22] Ibid, para 24.
[23] Case C-309/02 *Radberger Getränkegesellschaft and Others* ECLI:EU:C:2004:799, para 68.

The Court of Justice has also, in the well-known *Keck* case, established that national provisions that restrict or prohibit certain selling arrangements are not to be considered as hindering trade between Member States so long as they apply to all relevant traders operating within the national territory and so long as they affect in the same manner, in law and in fact, the marketing of domestic products and of those from other Member States.[24] Such selling arrangements have been found to include, inter alia, rules on business opening hours and requirements that certain products may be sold only by authorised distributors.[25]

The rules established by the Court of Justice for selling arrangements have turned out to be of limited significance for environmental and health protection measures, since these typically govern the characteristics of products rather than merely the forms under which they are sold. The Court's findings in *Keck* have also been criticised as containing contradictions and as lacking in clarity and therefore being of limited use.[26]

A central issue has been whether the delimitation on the applicability of Article 34 TFEU, which according to *Keck* applies to selling arrangements, also applies to national measures that do not pertain to imports or marketing of products but only to their use. In a case concerning an Italian prohibition on mopeds and motorcycles towing a trailer the Court of Justice concluded that 'a prohibition on the use of a product in the territory of a Member State has a considerable influence on the behaviour of consumers, which, in its turn, affects the access of that product to the market of that Member State', which is why such a prohibition constitutes a measure having equivalent effect to quantitative restrictions on imports.[27] The Court did not, however, limit itself to the specific circumstances of the case but also stated, in more general terms, that every measure which hinders access of products originating in other Member States to the market of a Member State is a measure having equivalent effect.[28] This should simplify the assessment of national measures since it makes products' access to the market of a Member State the ultimate criteria. But it also raises new questions such as when an obstacle to market access exists and how this should be measured or assessed.[29]

Subsequent case law may give some, although still limited, guidance. In *ANETT* the Court of Justice found Spanish legislation prohibiting tobacco retailers from directly importing tobacco products from other Member States, thereby forcing them

[24] Joined Cases C-267/91 & C-268/91 *Keck and Mithouard* (n 10), para 16.

[25] Joined Cases C-401/92 and C-402/92 *Tankstation 't Heukske and Boermans* ECLI:EU:C:1994:220 (rules on petrol station opening hours), and Case C-387/93 *Banchero* ECLI:EU:C:1995:439 (legislation that reserved the retail sale of manufactured tobacco products to authorised distributors). On so-called selling arrangements see further C Barnard *The Substantive Law of the EU: The Four Freedoms* (Oxford University Press, 2013) Chap 5.

[26] See, eg, Opinion of Mr Advocate General Léger in Case C-110/05 ECLI:EU:C:2008:386, para 77 with further references.

[27] Case C-110/05 *Commission v Italy* (n 8), paras 56–58. [28] Ibid, para 37.

[29] See eg I Lianos 'Shifting Narratives in the European Internal Market: Efficient Restrictions of Trade and the Nature of "Economic" Integration' (2010) 21 *European Business Law Review* 705–60, 719 et seq.

to procure their supplies from authorised wholesalers, capable of having a negative effect on the choice of products that the tobacco retailers include in their range of products and, ultimately, on the access of various products coming from other Member States.[30] According to the Court of Justice 'the mere fact that an importer might be dissuaded from introducing or marketing [certain products in a Member State] constitutes a restriction on the free movement of goods for the importer'.[31] It has also been established that a negative effect on access to a national market may follow from rules that make it harder to receive a subsidy associated with a product. In *Bonnarde* a requirement that the registration document for demonstration vehicles must state that the vehicle has been a 'demonstration vehicle' (and is therefore not a used car in the ordinary sense despite already being registered) in order for a new owner to be granted an ecological subsidy was found to affect those vehicles' access to the Member State's market since it may influence the behaviour of consumers.[32]

It should be noted that even though the prohibition on quantitative restrictions and measures having equivalent effect typically comes into play in relation to measures by Member States, they are equally applicable to measures adopted by EU institutions, such as directives, regulations, and decisions by the Commission.[33] However, measures of EU institutions are in principle presumed to be lawful and accordingly produce legal effects until they are withdrawn, annulled in an action for annulment, or declared invalid by the Court of Justice following a reference for a preliminary ruling or a plea of illegality.[34]

Importantly, Article 34 TFEU does not apply to so-called reverse discrimination, that is, when national measures result in domestic goods receiving less favourable treatment than goods originating in other Member States. The Court of Justice has made clear that differences in treatment between goods which are not capable of restricting imports or of prejudicing the marketing of imported goods do not fall within the prohibition contained in Article 34.[35]

As mentioned previously, Article 35 TFEU prohibits quantitative restrictions on exports and all measures having equivalent effect. Although the wording is the same as in Article 34, except that this Article deals with exports rather than imports, Article 35 has been given a more limited area of applicability. In *Groenveld* in 1979 the Court of Justice famously declared that the prohibition on exports only concerns national measures which have as their specific object or effect the restriction of patterns of exports and thereby the establishment of a difference in treatment between the domestic trade of a Member State and its export trade in such a way as to provide a particular advantage for national production or for the domestic

[30] Case C-456/10 *ANETT* ECLI:EU:C:2012:241, paras 38–42.
[31] Case C-385/10 *Elenca* ECLI:EU:C:2012:634, para 22.
[32] Case C-443/10 *Bonnarde* ECLI:EU:C:2011:641, para 30.
[33] Case 15/83 *Denkavit Nederland* ECLI:EU:C:1984:183, para 15 and Case C-51/93 *Meyhui* ECLI:EU:C:1994:312, para 11.
[34] Case 101/78 *Granaria* ECLI:EU:C:1979:38, para 4 and Case C-45/91 *Commission v Greece* ECLI:EU:C:1992:164, para 18.
[35] Case 98/86 *Mathot* ECLI:EU:C:1987:89, para 7.

market of the Member State in question, at the expense of the production or of the trade of other Member States.[36]

National measures that are applied objectively to goods of a certain kind, without any distinction being made based on whether the goods are intended for the domestic market or for export, are thus not affected by the prohibition. However, several arguments have been put forward for dropping the requirement for the existence of different treatment and bringing the interpretation of measures having an equivalent effect to quantitative restrictions on exports more in line with what applies to imports.[37] The Court of Justice seems also to have moved in this direction, for example by finding a national measure which applied to all traders active in the national territory to be contrary to Article 35 on account of its actual effect being greater on goods leaving the market of the exporting Member State than on the marketing of goods in the domestic market of that State.[38] But further case law will be needed to bring full clarity in this regard.

The Court has in a number of cases dealt with de iure or de facto restrictions on exports of waste. These have often been found to be prohibited export restrictions since their objective has been to promote disposal or recycling of the waste in domestic waste treatment plants.[39] If such a policy is deemed to have a purely economic basis, that is, if treating the waste domestically rather than exporting it has not been shown to provide environmental benefits, it is not acceptable.[40]

3.3 Legitimising Trade Restrictive Measures

The prohibition on quantitative import and export restrictions and measures having equivalent effects is subject to certain exceptions. These exceptions, which should not be confused with the delimitations of the prohibitions discussed previously, come into play once a national measure has been found to be prima facie inconsistent with Article 34 or 35 TFEU. Considering the broad interpretation of the prohibition, particularly with respect to restrictions on imports, virtually every national measure which impedes trade between Member States would otherwise be prevented. That would have severe repercussions on the ability of the Member States to protect important public interests. For this reason there were from the outset a number of legitimate grounds for exemptions, which are now found in Article 36 TFEU. It states that:

[36] Case 15/79 *Groenveld* ECLI:EU:C:1979:253, para 7.

[37] See eg Opinion of Advocate General Tresnjak in Case C-205/07 ECLI:EU:C:2008:427, paras 42–48.

[38] Case C-205/07 *Gysbrechts* ECLI:EU:C:2008:730, para 43. When apparently dropping the 'provide a particular advantage for national production' criteria, the Court also seems to have opened up for mandatory requirements to be used for justifying an exception to Art 35: ibid, para 47. Mandatory requirements are discussed later in this chapter.

[39] See eg Case C-209/98 *Entreprenørforeningens Affalds/Miljøsektion (FFAD)* ECLI:EU:C:2000:279 ('Sydhavnens Sten & Grus').

[40] Case C-203/96 *Chemische Afvalstoffen Dusseldorp and Others* ECLI:EU:C:1998:316, para 44.

The provisions of Articles 34 and 35 shall not preclude prohibitions or restrictions on imports, exports or goods in transit justified on grounds of public morality, public policy or public security; the protection of health and life of humans, animals or plants; the protection of national treasures possessing artistic, historic or archaeological value; or the protection of industrial and commercial property.

The Article continues by establishing that '[s]uch prohibitions or restrictions shall not, however, constitute a means of arbitrary discrimination or a disguised restriction on trade between Member States'. 'Arbitrary discrimination' and 'disguised restriction on trade' are hence prohibited even if the measures are based on legitimate grounds. But equally significant is that national measures should be allowed to make a distinction based on nationality as long as the discrimination is not 'arbitrary' or a disguised restriction on trade, that is, when they are necessary for the attainment of the legitimate objective. To exemplify: restricting the importation of live cattle from one Member State while continuing to allow it from other Member States as well as allowing the continued sale of domestically reared cattle does not amount to unlawful discrimination if in the Member State on whose cattle the prohibition has been imposed there is an outbreak of an epizootic disease the spread of which the import prohibition aims to prevent.[41]

For a national measure to be susceptible to justification under Article 36 there should be no less trade-restrictive measure available to the Member State that achieves the same objective.[42] Put differently, the national measures should be necessary to achieve the legitimate objective at issue. It falls on the Member State that takes a trade-restrictive measure to show that the measure is necessary in order to attain one or more objectives mentioned in Article 36.[43]

Of greatest significance to the present discussion, and also the derogation most frequently invoked by the Member States, is the right to prohibit or restrict imports or exports in order to protect the health and life of humans, animals, or plants.[44] This right evidently covers measures aimed at preventing the spread of human, animal, and plant diseases, as well as product standards when the regulated products may pose a threat to human health. But there is no reference in Article 36 to the protection of the environment in a broader sense. And since this Article constitutes an exception from the general prohibition of Article 34, the Court of Justice has held that it must be narrowly interpreted.[45] As a result, it has traditionally only been environmental legislation that primarily concerns the health and life of humans, animals, or plants that has been deemed to fall under this exception.[46] There is accordingly a wide array of national measures aimed at the protection of

[41] A similar situation was addressed in Case 4/75 *Rewe-Zentralfinanz* ECLI:EU:C:1975:98.
[42] Case 104/75 *de Peijper* ECLI:EU:C:1976:67, para 17.
[43] Case 227/82 *van Bennekom* ECLI:EU:C:1983:354, para 40.
[44] Barnard *The Substantive Law of the EU* (n 25) 163.
[45] Case 29/72 *Marimex* ECLI:EU:C:1972:126, para 4. This has subsequently been reaffirmed on many occasions, eg in Case C-333/08 *Commission v France* ECLI:EU:C:2010:44, para 87.
[46] The Court of Justice has, however, taken a rather generous view on what may be regarded as measures aimed at protecting the health and life of animals, eg in Case C-67/97 *Bluhme* (n 13), which is further discussed presently.

the environment in one sense or the other that reasonably fall outside the purview of Article 36 and which would thereby be prohibited without any possibility for an exception. This applies not only in the field of environmental protection but also with respect to several other policy objectives that became increasingly important after the drafting of the Treaty of Rome in the 1950s. During the 1960s and 1970s it became apparent that there was a pressing need for potentially trade-restrictive national measures in areas not covered by secondary EU law in order to protect values or further objectives not mentioned in Article 36 TFEU.

A first recognition of this need by the Court of Justice came in the *Dassonville* case in 1974.[47] In this case the Court found that the objective of consumer protection can justify national measures that hamper trade between Member States. This conclusion also had profound implications beyond the field of consumer protection since it established the existence of legitimate grounds for exceptions beyond those set out in Article 36. The Court of Justice required that the measures be 'reasonable'.[48] This has subsequently been specified as a requirement for proportionality.

However, the decisive step towards expanding the room for trade restrictive national measures outside the ambit of Article 36 was taken by the Court of Justice in 1978 in a case usually called *Cassis de Dijon*.[49] In that case the Court found that:

> Obstacles to movement within the community resulting from disparities between the national laws relating to marketing of the products in question must be accepted in so far as those provisions may be recognised as being necessary in order to satisfy mandatory requirements relating in particular to the effectiveness of fiscal supervision, the protection of public health, the fairness of commercial transactions and the defence of the consumer.[50]

Hereby the Court had established 'mandatory requirements' as the basis for justifying trade-impeding national measures outside of Article 36. While providing a number of such mandatory requirements, the Court also indicated that the list was not exhaustive. In the specific case, however, the Court did not accept the national measures at issue (ie, the mandatory fixing of a minimum alcohol content for certain alcoholic beverages), since they were not deemed to 'serve a purpose which is in the general interest and such as to take precedence over the requirements of the free movement of goods, which constitutes one of the fundamental rules of the Community'.[51] A mandatory requirement must hence relate to a general interest that may be given precedence over the free movement of goods. In its subsequent case law the Court of Justice has recognised a number of such mandatory requirements which are often collectively referred to as 'overriding requirements relating to the public interest'.[52] The appropriateness of having a court, rather than a more

[47] Case 8/74 *Dassonville* (n 7).

[48] Ibid. In this case the Court of Justice found that in the absence of a community system guaranteeing for consumers the authenticity of a product's designation of origin, Member States may take measures to prevent unfair practices in this context provided that these measures are reasonable and that the means of proof required do not act as a hindrance to trade between Member States. Ibid, grounds, para 6.

[49] Case 120/78 *Rewe-Zentral* (n 9). [50] Ibid, para 8. [51] Ibid, para 14.

[52] Case C-112/00 *Schmidberger* (n 15), para 78. For a typology of mandatory requirements recognised in subsequent case law see Barnard *The Substantive Law of the EU* (n 25) 172–3.

democratically legitimate political body, determining what is an interest able to take precedence over the free movement of goods is nonetheless clearly disputable.

The case gave rise to what is now generally known as the *Cassis de Dijon* principle. According to this principle, a national measure is allowed to impede trade between Member States in cases where there is no applicable secondary EU legislation provided that the measure in question is proportionate to the aim in view and is also the least trade-restrictive measure able to achieve that aim. The measure should also apply to domestic and imported products without distinction.[53] However, as discussed further in section 3.3.4, this non-discrimination requirement has been de facto abandoned by the Court in its subsequent case law.

3.3.1 Environmental protection as a mandatory requirement

Despite the broadening of the scope for trade-restrictive national measures through the case law of the Court of Justice, there was still at the beginning of the 1980s no clear recognition of environmental protection as a mandatory requirement. It was only in the middle of that decade that the Court made clear that protection of the environment may take precedence over the free movement of goods.

In the *ADBHU* or *Waste Oil* case, the Court of Justice found in 1985 that protection of the environment is one of the (now) EU's essential objectives.[54] It was, however, the so-called *Danish bottle* case, decided in 1998, that came to be seen as the landmark case firmly establishing environmental protection as one of the legitimate grounds for taking trade-restrictive measures outside the scope of Article 36 TFEU.[55]

The case concerned Danish rules to the effect that the marketing of beer and soft drinks was authorised only in re-usable containers that had been approved by the National Agency for the Protection of the Environment. Approval of new kinds of container could be denied, inter alia, if they were considered not technically suitable for a system for returning containers. An amendment to the rules made it possible to use certain non-approved containers for the marketing of quantities not exceeding 300,000 litres a year per producer and for drinks which were sold by foreign producers in order to test the market. However, non-approved metallic containers were not accepted and anyone wanting to use other non-approved containers was required to establish a deposit-and-return system for them.[56]

The Court of Justice found the obligation to establish a deposit-and-return system for empty containers an indispensable element of a system intended to ensure the re-use of containers and therefore necessary to achieve the aims pursued by the Danish rules.[57] However, by restricting the quantity of beer and soft drinks which could be marketed by a single producer in non-approved containers

[53] See eg Case 302/86 *Commission v Denmark* ECLI:EU:C:1988:421, para 6.
[54] Case 240/83 *ADBHU* ECLI:EU:C:1985:59, para 13.
[55] Case 302/86 *Commission v Denmark* (n 53). [56] Ibid, paras 2–3.
[57] Ibid, para 13.

Denmark had failed, as regards imports of those products from other Member States, to fulfil its obligations under what is now Article 34 TFEU.[58] The Court of Justice's main objection to the Danish system seems to have been that it allowed the Danish authorities to refuse approval to a foreign producer even if the producer was prepared to ensure that returned containers were re-used.[59]

As regards proportionality between the national measures and the aim pursued, the Court dealt with this separately for the deposit-and-return system and for the requirement only to use approved containers. As noted previously, the deposit-and-return system was found to be necessary to achieve the aims pursued by the contested rules. The restrictions which it imposed on the free movement of goods were therefore not regarded as disproportionate.[60] With respect to the requirement that, with some exceptions, only authorised containers be used for the marketing of beer and soft drinks, Denmark had argued that the existing deposit-and-return system would not work if the number of approved containers were to exceed thirty or so.[61] The Court of Justice conceded that the existing system for returning approved containers ensured 'a maximum rate of re-use and therefore a very considerable degree of protection of the environment since empty containers can be returned to any retailer of beverages',[62] but came to the conclusion that also the system for returning non-approved containers was capable of protecting the environment—although assumedly achieving less than a maximum rate of re-use—and that it, as far as imports are concerned, affected 'only limited quantities of beverages compared with the quantity of beverages consumed in Denmark owing to the restrictive effect which the requirement that containers should be returnable has on imports'.[63] In light of these circumstances, the Court deemed the restriction of the quantity of products which could be marketed by importers as disproportionate to the objective.

The Court of Justice seems to have defined a level of environmental protection which it considered reasonable and thus found trade-restrictive national measures that pursued a higher level of protection not acceptable. The implication of this would be that the Court is the ultimate arbiter of what level of environmental protection a Member State may lawfully pursue. However, the Court's reasoning in this part is not particularly clear and seems also to have developed in subsequent case law.

3.3.2 Developments since the *Danish bottle* case

At the time when the Court of Justice gave its judgment in the *Danish bottle* case it seemed rather clear that a distinction should be made between on the one hand the exceptions set out in Article 36 TFEU, primarily those relating to protection of life and health of humans, animals, and plants, and on the other hand the exception

[58] Ibid, para 22. [59] Ibid, para 16. [60] Ibid, para 13. [61] Ibid, para 15.
[62] Ibid, para 20. Non-approved containers, on the other hand, could be returned only to the retailer who sold the beverages, since it was impossible to set up a comprehensive system for those containers as well.
[63] Ibid, para 21.

relating to protection of the environment in a broader sense based on the so-called *Cassis de Dijon* line of case law. In the first case a distinction based on origin was allowed as long as it was not arbitrary, whereas the exceptions formulated by the Court itself were only applicable to national measures that did not distinguish based on origin. Subsequently this situation has gradually changed through a series of judgments in which the Court of Justice has accepted measures that distinguish based on origin outside the ambit of Article 36, and sometimes also have bundled protection of human health and the environment together without any distinction. However, the Court has persistently avoided setting out a new principle, which has made the relevant case law look inconsistent or even obscure. There has also been a lack of clarity regarding what right a Member State has to define its own level of environmental or health protection. In the following sections we will briefly outline the development in these areas and try to provide as clear a picture as possible of the current state of the law with respect to the most significant factors for assessing compatibility of national measures with the principle of free movement of goods.

3.3.3 Legitimate grounds for exceptions

As we have seen, the Court of Justice has repeatedly held that since Article 36 TFEU contains an exception to the rule of the free movement of goods within the EU, it must be narrowly interpreted.[64] The Court has also in some cases clearly indicated that there is a difference between measures aimed at the protection of human life and health and those aimed at the protection of the environment.[65] But in *Bluhme* the Court interestingly held that national measures aimed at the preservation of 'an indigenous animal population with distinct characteristics contribute to the maintenance of biodiversity by ensuring the survival of the population concerned' and are thereby aimed at protecting the life of those animals and are capable of being justified under Article 36 TFEU.[66] As to the object of the protective measures, the Court of Justice even found that

> from the point of view of such conservation of biodiversity, it is immaterial whether the object of protection is a separate subspecies, a distinct strain within any given species or merely a local colony, so long as the populations in question have characteristics distinguishing them from others and are therefore judged worthy of protection either to shelter them from a risk of extinction that is more or less imminent, or, even in the absence of such risk, on account of a scientific or other interest in preserving the pure population at the location concerned.[67]

It is thus clear that Article 36 covers not only measures for the protection of specific individuals, for example against contagious diseases, or even those protecting a species against extinction, but also measures aimed at protecting biological diversity

[64] See, eg, Case C-333/08 *Commission v France* (n 45), para 87.
[65] Case C-2/90 *Commission v Belgium* ECLI:EU:C:1992:310, para 30.
[66] Case C-67/97 *Bluhme* (n 13), para 33. [67] Ibid, para 34.

and its components in a broad sense. More generally, this indicates that there is room for a broader interpretation of the ambit of Article 36.

The Court has also in some cases assessed protection of human health and wider environmental considerations together without making a distinction between the two grounds. In *Mickelsson and Roos*, a case concerning a prohibition on the use of personal watercraft on waters other than general navigable waterways, the Court found that the protection of the environment, on the one hand, and the protection of health and life of humans, animals, and plants, on the other hand, were closely related objectives, which should be examined together.[68]

In addition to Article 36 and protection of the environment more generally, mention should be made of one further ground for legitimately restricting the free movement of goods. EU law and its application may not be inconsistent with human rights as defined, inter alia, in international treaties to which the Member States are parties.[69] This applies also to the Member States, and the Court of Justice has therefore concluded that the protection of human rights is a legitimate interest which, in principle, justifies a restriction of a fundamental freedom such as the free movement of goods.[70]

An obligation to take protective measures can follow, inter alia, from the right to life and the right to privacy.[71] Perhaps more interesting in this context is that other rights, such as freedom of expression and freedom of assembly, can also have implications for the lawfulness of environment-related national measures. A pertinent example is when private actors want to draw attention to what they consider to be environmentally harmful activities through acts which constitute an obstacle to the free movement of goods. In *Schmidberger* the Court of Justice found that a decision by Austrian authorities not to prohibit a demonstration by environmental protesters, which resulted in the complete closure of the Brenner motorway for almost thirty hours, could be justified by reference to the freedom of expression and the freedom of assembly.[72]

3.3.4 Discrimination

As previously noted, Article 36 TFEU only prohibits 'arbitrary discrimination', thereby enabling the Member States to adopt measures which discriminate against products based on their origin if the discrimination is based on objective grounds and is necessary to achieve the legitimate aim pursued. Measures based on other 'overriding requirements relating to the public interest' have traditionally been

[68] Case C-142/05 *Mickelsson and Roos* CLI:EU:C:2009:336, para 33. See also the discussion on Case C-573/12 *Ålands Vindkraft* ECLI:EU:C:2014:2037 in section 3.3.4.

[69] Case C-299/95 *Kremzow* ECLI:EU:C:1997:254, para 14.

[70] Case C-112/00 *Schmidberger* (n 15), para 74.

[71] See, eg, the judgments of the European Court of Human Rights in *Guerra and Others v Italy*, App No 14967/89, 19 February 1998; *López Ostra v Spain*, App no 16798/90, 9 December 1994; and *Fadeyeva v Russian Federation*, App No 55723/00, 9 June 2005.

[72] Case C-112/00 *Schmidberger* (n 15).

regarded as not allowing for any discrimination. In recent years, however, this distinction has become increasingly blurred, and the Court of Justice has even accepted explicitly discriminatory measures outside the ambit of Article 36.

As early as 1992, in the so-called *Wallonian waste* case, the Court of Justice found that a prohibition against importation and subsequent disposal of waste from other Member States or from regions of Belgium other than Wallonia could be justified with reference to protection of the environment.[73] The Court actually described the measure as one that could not be regarded as discriminatory.[74] This was rather bewildering since the Court had confirmed that even non-recyclable and non-reusable waste is to be considered as goods. It is thus hard to see how a national measure that explicitly treats waste originating outside a specific region less favourably than waste originating in that region itself could be anything but discriminatory.[75] However, referring to the 'particular nature of waste' and the principles of self-sufficiency and proximity set out in the Basel Convention on the control of transboundary movements of hazardous wastes, the Court found that the differences between waste produced in different places and the connection of the waste with its place of production enabled national measures to make a distinction based on origin without thereby being discriminatory. By emphasising the particular nature of waste the Court was able at the same time to reaffirm that imperative requirements can be taken into account only in the case of measures which apply without distinction to both domestic and imported products.[76]

In *Aher-Waggon*, decided in 1998, a discriminatory measure without any connection to waste—a German rule according to which aircraft that had previously been registered in another Member State had to meet strict noise limits when being registered in Germany, whereas aircraft that had already obtained German registration before the noise limits were adopted could retain that registration—was accepted by the Court of Justice without any mention of discrimination.[77] The Court also broadly referred to the possibility that the measures could be 'justified by considerations of public health and environmental protection' without distinguishing between human health and other environmental concerns. More significantly, it did not base its acceptance of the German measures on the provisions of Article 36 TFEU but instead found that Article 34 did not preclude the national legislation at issue. Without explicitly saying so, it thus appears that the Court used the doctrine of mandatory requirement to justify a de iure discriminatory measure.

In *PreussenElektra*, decided in 2001, the Court of Justice was asked to rule on a German law requiring electricity supply undertakings operating a general supply network to purchase the electricity produced from renewable energy sources in their area of supply at minimum prices, thereby guaranteeing the producers of renewable energy a higher income than they could otherwise expect.[78] Since the

[73] Case C-2/90 *Commission v Belgium* (n 65). [74] Ibid, para 36.

[75] See further eg F G Jacobs 'The Role of the European Court of Justice in the Protection of the Environment' (2006) 16 *Journal of Environmental Law* 185–205, 189.

[76] Case C-2/90 *Commission v Belgium* (n 65), paras 34–6.

[77] Case C-389/96 *Aher-Waggon* ECLI:EU:C:1998:357.

[78] Case C-379/98 *PreussenElektra* ECLI:EU:C:2001:160.

obligation to buy electricity from renewable energy sources applied only within the scope of the specific statute and thereby only to renewable energy sources in Germany, it was evident that the national measures made a distinction based on origin. The Court initially established that an obligation placed on traders in a Member State to obtain a certain percentage of their supplies of a given product from a national supplier limits to that extent the possibility of importing the same product from other Member States.[79] The Court also found, however, that when establishing the compatibility of the measure with Article 34 TFEU, account had to be taken of the aim of the provision in question as well as of the particular features of the electricity market. It noted that the use of renewable energy sources for producing electricity is useful for protecting the environment in so far as it contributes to mitigating climate change, which the EU and its Member States have pledged to combat.[80] The Court also referred, inter alia, to the fact that environmental protection requirements must be integrated into the definition and implementation of other EU policies in accordance with what is now Article 11 TFEU. As to the specific nature of energy, it noted that it is difficult to determine its origin, and in particular the source of energy from which it was produced once it has been allowed into the transmission or distribution system.[81] By way of conclusion the Court of Justice found, without any mention of discrimination, that in the current state of EU law concerning the electricity market, the German legislation was compatible with Article 34. Once more a national measure that was both de facto and de iure discriminatory had thus seemingly been justified as a mandatory requirement.

In a later case concerning 'green electricity' the Court applied another reasoning. In *Ålands Vindkraft* the Court of Justice assessed support schemes for renewable electricity using green certificates according to which certificates were awarded solely in respect of green electricity produced in the national territory of the Member State concerned.[82] This time the Court found the national measure to be contrary to Article 34 TFEU since it was clear that the scheme was capable of impeding electricity imports from other Member States. However, it went on to hold that the territorial limitation could be regarded as necessary, and thus justifiable, in order to attain the legitimate objective pursued. Since EU law has not harmonised the national support schemes for green electricity, it is, according to the Court, possible in principle for Member States to limit access to such schemes to green electricity production located in their territory.[83] This was perhaps not too surprising, given both the previous case law and the fact that the 2009 Directive on the promotion of the use of energy from renewable sources defines it as 'essential' that Member States are able to determine if and to what extent their national support schemes apply to energy from renewable sources produced in other Member States.[84] Interestingly,

[79] Ibid, para 70. [80] Ibid, paras 72–3. [81] Ibid, paras 76 and 79.
[82] Case C-573/12 *Ålands Vindkraft* ECLI:EU:C:2014:2037.
[83] Ibid, paras 92, 94, and 104.
[84] Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC [2009] OJ L 140/16, preambular para 25.

the Court this time made it clear that it considered an increase in the use of renewable energy sources to be designed to protect the health and life of humans, animals, and plants, thereby being among the public interest grounds listed in Article 36 TFEU.[85] The justification of the discriminatory certificates scheme can thus not be seen as an example of the Court's acceptance of non-arbitrary discrimination outside Article 36. However, there are also other cases, not related to electricity markets, in which the Court seems to have accepted that environmental concerns can justify discriminatory national measures without reference to Article 36.[86]

Despite this rather obvious acceptance of national measures that make a distinction between imported and domestically produced goods outside the ambit of Article 36 TFEU, the Court of Justice has still to recognise explicitly that the non-discrimination requirement no longer applies, or explicitly indicate under which conditions measures which do not apply without distinction to foreign and national products may nevertheless be justified on environmental grounds.

Among others, Advocate General Jacobs has argued in favour of a more flexible approach to applying the imperative requirement of environmental protection. In support of this position he has held that the obligation to integrate environmental protection requirements into the definition and implementation of all relevant EU policies necessitates special account to be taken of environmental concerns in interpreting the Treaty provisions on the free movement of goods. He has also observed that if environmental measures can be justified only where they are applicable without distinction the very purpose of such measures risks being defeated, since

> national measures for the protection of the environment are inherently liable to differentiate on the basis of the nature and origin of the cause of harm, and are therefore liable to be found discriminatory, precisely because they are based on such accepted principles as that environmental damage should as a priority be rectified at source.[87]

Although it has yet to be explicitly declared by the Court of Justice, it should be clear by now that environmental measures can in fact be justified as pursuing imperative requirements even when they make a distinction between goods imported from other Member States and those of domestic origin.

3.3.5 Proportionality

The general meaning and application of the proportionality principle in EU law has been discussed in Chapter 2.[88] Here we will try to provide a somewhat deeper

[85] Dir 2009/28/EC (n 84), para 80. The Court also indicates that it applied the same kind of reasoning in Case C-379/98 *PreussenElektra* (n 78), although without stating that clearly.

[86] See, eg, Case C-309/02 *Radberger* (n 23).

[87] Opinion of Advocate General Jacobs in Case 379/98 ECLI:EU:C:2000:585, paras 231–33. Advocate General Geelhoed has supported this view and pointed out that it would be inconsistent if non-arbitrary discriminatory environmental measures could be maintained or adopted by a Member State in an area subject to secondary EU law according to Art 114(4) and (5) TFEU (see further section 4.3) but would not be susceptible to an exception from Art 34. Opinion of Advocate General Geelhoed in Case C-320/03 ECLI:EU:C:2005:459, para 106.

[88] See section 2.4.3.

understanding of what role proportionality plays in the assessment of the compatibility of national measures with the principle of free movement of goods.

The way in which the Court of Justice deals with proportionality varies considerably between different cases. In some cases proportionality is the subject of a rather extensive analysis, whereas in others the Court confines itself to briefly concluding that a specific national measure is suitable for achieving the stated objective.[89]

Overall, for a measure to be deemed proportional, the means which it employs must be suitable for the purpose of achieving the desired objective and it should not go beyond what is necessary to achieve that objective.[90] It is for the Member State taking the restrictive measure to provide evidence that allows its arguments regarding the measure's appropriateness and proportionality to be substantiated.[91]

If the measure is not deemed suitable for achieving the desired objective it is likely to impede the free movement of goods without bringing any environmentally beneficial results which could justify the trade impediment. When the Commission or the Court of Justice questions whether a national measure is in fact suitable for achieving the desired objective, that is tantamount to questioning whether the national measure was in fact prompted by the stated aim—or, to put it more bluntly, whether the Member State is really telling the truth. As to the link between a national measure and a stated justification, the Court has made clear that it is 'required to examine a justification [based on Article 36 TFEU] only in so far as it is common ground or properly established that the national legislation concerned does in fact pursue the purposes that the defendant Member State attributes to it'.[92]

Determining whether a national measure is suitable for achieving the desired objective can be quite challenging—not least if the desired effects are long-term or concern small effects on large groups or complex systems. Rather than trying to assess the actual outcome of the measure, the Court of Justice has opted for looking at the manner in which a Member State pursues the objective. It has, for example, found that a measure is 'appropriate for ensuring attainment of the objective pursued only if it genuinely reflects a concern to attain it in a consistent and systematic manner'.[93] It seems thus that a measure must appear to be reasonably well designed and not be inconsistent with other measures relating to similar objectives. However, the Court is unlikely to require perfect consistency between the handling of similar risks by any individual Member State. Considering the complex nature of many environmental problems, such a requirement would be hard to maintain in practice, and would easily be perceived as a very far-reaching restriction on the Member States' ability to devise their own policies. It is particularly with respect to national measures that have far-reaching repercussions for free movement that the measures

[89] See further Jacobs 'The Role of the European Court' (n 75) 197.

[90] Case C-233/94 *Germany v Parliament and Council* ECLI:EU:C:1997:231, para 54.

[91] On the meaning of 'substantiate' and the varied terminology applied by the Court of Justice in this context see N Nic Shuibhne and M Maci 'Proving Public Interest: The Growing Impact of Evidence in Free Movement Case Law' (2013) 4 *Common Market Law Review* 965–1005, 982.

[92] Case C-165/08 *Commission v Poland* ECLI:EU:C:2009:473, para 53.

[93] Case C-169/07 *Hartlauer Handelsgesellschaft* ECLI:EU:C:2009:141, para 55.

would seem easier to justify if they form part of a consistent policy of securing attainment of a public interest objective.[94]

The issue of whether a measure is more far-reaching than necessary can also be phrased as whether there is any other measure that could achieve the same desired objective with less negative impact on free movement. If so, the measure at issue will normally not be deemed proportional. Requiring that a certain circumstance be proven by means of a specific document is for example likely to be deemed excessive and, therefore, disproportionate if that circumstance can be proven by the presentation of other documents.[95]

In some cases the Court of Justice has explicitly required that the Member State assesses the existence of alternative means of attaining the same objective. Presumably the obligation to look for alternative measures becomes more demanding the more trade-impeding the contemplated measure is. In a case concerning a ban on lorries carrying certain goods on a section of motorway constituting a vital route of communication between certain Member States, the Court found that

> the Austrian authorities were under a duty to examine carefully the possibility of using measures less restrictive of freedom of movement, and discount them only if their inadequacy, in relation to the objective pursued, was clearly established.[96]

Identifying and accounting for every conceivable alternative measure could easily become a Herculean task, effectively rendering it impossible for the Member States to adopt any measures with more far-reaching impacts on trade between Member States. The Court has recognised this risk by holding that even though each Member State which invokes an imperative requirement as justification for the hindrance to free movement of goods has to demonstrate that its rules are appropriate and necessary, 'that burden of proof cannot be so extensive as to require the Member State to prove, positively, that no other conceivable measure could enable that objective to be attained under the same conditions'.[97]

A highly practical issue is obviously how costly or cumbersome an alternative measure can be and still qualify as a reasonable alternative which has to be chosen before a more trade-restrictive measure. Aims of a purely economic nature can generally not justify barriers to the free movement of goods.[98] It would seem obvious, however, that Member States must be allowed to disregard measures which hypothetically could be used to achieve an environmental objective but which would be excessively costly or complicated to implement. A Member State could otherwise be placed in a position where it was prohibited to take an otherwise appropriate measure because of the existence of alternative measures which it for practical

[94] See further G Mathisen 'Consistency and Coherence as Conditions for Justification of Member State Measures Restricting Free Movement' (2010) 47 *Common Market Law Review* 1047.

[95] Case C-443/10 *Bonnarde* (n 32), paras 35–38.

[96] Case C-320/03 *Commission v Austria* (n 18), para 87.

[97] Case C-110/05 *Commission v Italy* (n 8), para 66.

[98] Case C-120/95 *Decker* ECLI:EU:C:1998:167, para 39. There seems, however, to be an increasing acceptance of economic arguments in some policy areas. Nic Shuibhne and Maci 'Proving Public Interest' (n 91) 998.

reasons could not reasonably avail itself of. In this regard the Court of Justice has established that Member States must be able to attain, for example, an environmental objective 'by the introduction of general rules which are necessary on account of the particular geographical circumstances of the Member State concerned and easily managed and supervised by the national authorities'.[99]

When determining whether trade-restrictive measures meet the proportionality requirement, the Court of Justice also considers the extent to which the national measures give the operators concerned reasonable time to adapt to the new circumstances.[100] This may also apply to changes of existing measures. In its assessment of a German deposit-and-return system for certain used packages, the Court held that the legislation at issue

> complies with the principle of proportionality only if, while encouraging the reuse of packaging, it gives the producers and distributors concerned a reasonable transitional period to adapt thereto and ensures that, at the time when the packaging-waste management system changes, every producer or distributor concerned can actually participate in an operational system.[101]

If the national measures are as far-reaching as a general ban, the proportionality requirement may be met by allowing for those operators finding it particularly challenging to find suitable substitutes for the banned product to apply for exemptions. In *Toolex Alpha* a system of individual exemptions from a general ban on trichloroethylene was considered appropriate and proportionate since it offered increased protection for workers, while at the same time taking account of the undertakings' need for continuity. Under the applicable law an exemption could only be granted in cases where no safer replacement product was available and provided that the applicant continued to seek alternative solutions which are less harmful to public health and the environment.[102]

National authorities can also need some time to adjust to new circumstances, for example by ameliorating the trade impeding effects of trade-restrictive measures. In *Mickelsson and Roos* a general prohibition on the use of personal watercraft on waters other than general navigable waterways had been adopted in Sweden. However, the national regulation at issue provided for the designation on a regional basis of additional waters on which personal watercraft may be used. The fact that no such additional designation had yet been made three weeks after the entry into force of the national regulation did not necessarily make the prohibition non-proportional, since consideration had to be given to the fact that the competent authority may not have had the necessary time to prepare the measures in question.[103]

When it comes to national measures that require prior inclusion on an 'authorised list' for the marketing of certain goods, thus making the marketing of those

[99] Case C-142/05 *Mickelsson and Roos* (n 68), para 36.
[100] Case C-320/03 *Commission v Austria* (n 18), para 90.
[101] Case C-309/02 *Radberger* (n 23), para 81.
[102] Case C-473/98 *Toolex Alpha* ECLI:EU:C:2000:379, paras 46–47.
[103] Case C-142/05 *Mickelsson and Roos* (n 68), para 42.

goods more difficult and more expensive, and consequently hindering trade between the Member States, the Court of Justice has applied a number of criteria that such a measure must meet to be proportional.[104] The drawing up of such a list and any subsequent amendments to it must be based on objective and non-discriminatory criteria.[105] The legislation at issue must also make provision for a procedure enabling interested parties to have new products or new kinds of goods included in the list. The procedure must be easily accessible and must be capable of being concluded within a reasonable time. Any decision to refuse the inclusion of a new product must be open to challenge before the courts.[106] An application to obtain the inclusion of a product in such a list may be refused only if its authorisation would pose a genuine risk to the protection of or compliance with any of the interests listed in Article 36 TFEU or otherwise recognised as imperative requirements under EU law.[107]

3.3.6 Acceptable level of protection

Are the Member States free to determine what level of protection for human health and/or the environment they want to maintain and then to adopt measures appropriate and necessary for achieving that level? With respect to protection of human life and health, the Court of Justice has in several cases confirmed that it is for the Member States to decide what degree of protection they intend to assure.[108] In doing this, however, the requirements of the free movement of goods within the EU must be taken into account.[109] Whether this leaves any room for a proportionality test in the strict sense, that is, weighing up of the interest of the desired level of protection against the impediment to the free movement of goods which the contemplated national measure would entail, has been the subject of some discussion.[110] However, the Court has recently been rather explicit on this point when stating that

> a Member State has the power to determine the degree of protection which it wishes to afford to human health and the way in which that degree of protection is to be achieved.

[104] The Court of Justice has dealt with 'authorised lists' in a number of cases, relating to different kinds of goods. For example, Case C-219/07 *Nationale Raad van Dierenkwekers en Liefhebberst* ECLI:EU:C:2008:353 concerned a Dutch prohibition on the holding or trading in mammals belonging to species not included in a 'positive' list, whereas Case C-192/01 *Commission v Denmark* ECLI:EU:C:2003:492 concerned a requirement for prior authorisation of foodstuffs to which vitamins and minerals have been added.

[105] Case C-219/07 *Nationale Raad* (n 104), para 34.

[106] Ibid, para 35 and Case C-333/08 *Commission v France* (n 45), para 81.

[107] Case C-219/07 *Nationale Raad* (n 104), para 36 and Case C-192/01 *Commission v Denmark* (n 104), para 46 with further references.

[108] See, eg, Case 174/82 *Sandoz* ECLI:EU:C:1983:213, para 16 (foodstuffs to which vitamins have been added); Case C-443/02 *Schreiber* ECLI:EU:C:2004:453, para 43 (plant protection products); and Case C-333/08 *Commission v France* (n 45), para 85 (processing aids and foodstuffs).

[109] Case C-333/08 *Commission v France* (n 45), para 85 with further references.

[110] See L Krämer *EU Environmental Law* (7th edn, Sweet & Maxwell, 2012) 96 and J H Jans and H H B Vedder *European Environmental Law* (Europa Law Publishing, 2012) 285–8.

Since that degree of protection may vary from one Member State to another, Member States must be allowed discretion.[111]

In a subsequent case concerning a national provision according to which only passenger cars with the steering equipment on the left-hand side could be registered in a Member State, however, the Court of Justice referred to the existence of 'means and measures less restrictive of the free movement of goods than the measure at issue and, at the same time, capable of significantly reducing the risk' associated with having the steering-wheel placed on the same side as the direction of the traffic as reason to find the national measure not necessary to attain the objective pursued.[112] This raises doubts as to whether the Member State was in fact free to determine its own level of protection, since 'capable of significantly reducing the risk' is not necessarily the same thing as achieving the same level of protection of human life and health as that which was achieved by the challenged national provision.

What is definitely clear is that the Court of Justice may take another view than the Member State on whether a particular measure is necessary to ensure the chosen level of protection.[113] It is also for the Member State taking protective measures to demonstrate in each case, taking account of the results of international scientific research, that there is a genuine threat to human health.[114]

It appears to be more demanding to show that such a threat exists in some areas than in others. At least with respect to measures that prohibit the marketing of foodstuffs lawfully manufactured and marketed in other Member States, the Court of Justice has found that a real risk for public health must appear to have been 'sufficiently established on the basis of the latest scientific data available at the date of the adoption of such decision'.[115] However, if the risk assessment reveals a high degree of scientific and practical uncertainty, the Member State concerned may, in accordance with the precautionary principle, take protective measures without having to wait for the reality and the seriousness of those risks to be fully demonstrated.[116] When a national measure concerns products such as pesticides, which are typically intended to be harmful for at least some organisms, it seems less demanding to gain acceptance for its necessity.[117] When foodstuffs are at issue the Court is more likely to view information provided to consumers through labelling as a sufficient measure.[118] This is perhaps not very surprising, but the apparently strong assumption that foodstuffs that have been lawfully marketed in one Member State

[111] Case C-421/09 *Humanplasma* ECLI:EU:C:2010:760, para 39.
[112] Case C-639/11 *Commission v Poland* ECLI:EU:C:2014:173, para 63.
[113] Ibid, para 43.
[114] Case C-333/08 *Commission v France* (n 45), para 87.
[115] Ibid, para 89.
[116] Ibid, para 91 with further references. On the application of the precautionary principle see section 2.4.5.
[117] Compare, eg, the outcome in Case C-400/96 *Harpegnies* (n 11) and Case C-443/02 *Schreiber* (n 108) (concerning plant protection products and biocidal products) with that in Case C-192/01 *Commission v Denmark* (n 104) and Case C-333/08 *Commission v France* (n 45) (concerning additives and processing aids for foodstuffs).
[118] H Unberath and A Johnston 'The Double-Headed Approach of the ECJ Concerning Consumer Protection' (2007) 44 *Common Market Law Review* 1237–84, 1252.

should also be accepted in the other Member States must not be allowed to prevent a Member State from correcting a bad risk assessment or an excessively producer-friendly standard applied in another Member State.

When it comes to environmental protection without an immediate link to human health, the Court of Justice has not made any similarly clear statement. However, there is much to indicate that the Court does not, at least not since the *Danish bottle* case, overrule Member States' decisions regarding protective level. It would also seem less appropriate for the Court to do so since the balancing of environmental protection against the interests of the internal market in areas without secondary EU law, and where the EU legislature has thus not taken a stand on the appropriate balance between these interests, is a political rather than a legal undertaking.[119]

Having undertaken this analysis of the acceptable level of protection, it must be pointed out that any discussion that focuses exclusively on the level of protection risks becoming rather irrelevant in relation to the assessments actually made by the Court of Justice. The room for Member State action is more defined by the requirements relating to assessment and implementation of alternative measures and for showing that the measure chosen is suitable for achieving the stated protective aim. The ability to rely on the precautionary principle in cases of scientific uncertainty can also be greatly significant. The way in which a Member State measure is being challenged, by direct action by the Commission or by referral for preliminary ruling, may also influence the intensity of the review of those measures by the Court of Justice.[120] Additional case-specific circumstances, such as ongoing legislative processes within the EU, may also be influential in determining whether the Commission will initiate a case against a Member State taking a trade-restrictive measure with the (stated) aim of protecting human health or the environment.[121]

3.4 Notification of Technical Standards

In order to protect the free movement of goods and uphold the prohibition on quantitative restrictions and measures having equivalent effect, the Commission needs to be informed about rules adopted by the Member States which impede the free flow of goods. Technical regulations are of particular interest in this regard since they are likely to impede the free movement of products which do not comply with the standards. For this reason, technical regulations relating to products are subject to a specific procedure which aims to guarantee that barriers to trade resulting from such regulations are allowed only where they are necessary in order to meet

[119] For a similar reasoning, see Jans and Vedder *European Environmental Law* (n 110) 288.

[120] Regarding the intensity of the review see further Nic Shuibhne and Maci 'Proving Public Interest' (n 91) 972.

[121] Krämer *EU Environmental Law* (n 110) 101.

essential requirements and have an objective in the public interest of which they constitute the main guarantee.[122] In order to achieve this aim, Directive 98/34/EC ('The Technical Standards Directive') requires the Member States to immediately communicate to the Commission any draft technical regulation together with a statement of the grounds which make the enactment of such a technical regulation necessary if these grounds have not already been made clear in the draft.[123] When a technical regulation merely transposes the full text of an international or European standard it suffices to provide information regarding the relevant standard.[124]

'Technical regulation' is broadly defined in the Directive and covers technical specifications and other requirements, including the relevant administrative provisions, the observance of which is compulsory, de jure or de facto, in the case of marketing or use in a Member State, as well as laws, regulations, or administrative provisions prohibiting the manufacture, importation, marketing, or use of a product.[125]

The Directive also includes a standstill provision according to which Member States must postpone the adoption of a draft technical regulation between three and six months (depending on the nature of the technical regulation) from the date on which the Commission was notified of the draft regulation.[126] The procedure established by Directive 98/34/EC enables the Commission to act proactively against national measures which it deems inconsistent with the rules on free movement of goods. The effectiveness of the procedure is increased by the fact that national courts are expected to refuse to apply any national legal provision that constitutes a technical regulation if it has not been notified to the Commission prior to its adoption.[127]

The Directive is supplemented by a regulation ('The Mutual Recognition Regulation') laying down procedures relating to the application of certain national technical rules to products lawfully marketed in another Member State.[128]

3.5 Environmental Taxes

Instead of adopting product standards or other restrictions covered by Article 34 TFEU to deal with environmentally harmful products, Member States may choose

[122] Directive 98/34/EC of the European Parliament and of the Council laying down a procedure for the provision of information in the field of technical standards and regulations [1998] OJ L 204/37, para 4 of the preamble.

[123] Ibid, Art 8(1). [124] Ibid, Art 10(1). [125] Ibid, Art 1, point 9.

[126] Ibid, Art 9(1–2). On the interpretation of this definition in case law see Joined Cases C-213/11, C-214/11, and C-217/11 *Fortuna, Grand and Forta* ECLI:EU:C:2012:495, para 27 with further references.

[127] Case C-303/04 *Lidl Italia* ECLI:EU:C:2005:528, para 24.

[128] Regulation (EC) No 764/2008 of the European Parliament and of the Council laying down procedures relating to the application of certain national technical rules to products lawfully marketed in another Member State and repealing Decision No 3052/95/EC [2008] OJ L 218/21. See on this regulation Barnard *The Substantive Law of the EU* (n 25) 195–7.

to levy a dissuasive tax. That taxes levied on products have the potential to affect consumer behaviour and thereby access to markets is obvious and even constitutes the main rationale of environmental taxation. Although not imposed at the time of importation, taxes are quite capable of discriminating against imported goods and have effects similar to those covered by Article 34. Internal taxes have even more in common with the customs duties and charges having equivalent effect which are prohibited under Article 30 TFEU. But although that Article and the Treaty provisions on discriminatory internal taxation (Article 110 TFEU) complement each other in pursuing the objective of prohibiting any national fiscal measure that is liable to discriminate against products coming from or destined for other Member States, these provisions are mutually exclusive and the same measure cannot belong to both categories at the same time.[129] The determinative factor is whether the charge at issue is triggered by the fact that the products cross a border. If not it may be considered an internal tax, but not a charge having equivalent effect to a customs duty.[130]

Despite the similarities, a fundamental difference is that unlike quantitative restrictions and custom duties, taxes are a fully legitimate policy instrument and Member States have a considerable discretion to devise their own tax policies, including by imposing environmental taxes.[131] This is often referred to as the fiscal autonomy of the Member States.[132]

What is in principle not acceptable is the imposition of internal taxes in a way which affords protection to domestic products at the expense of those imported from other Member States. This situation is addressed in Article 110 TFEU, which aims to ensure free movement of goods between the Member States by the elimination of all forms of protection which may result from the application of internal taxation that discriminates against products from other Member States.[133]

Article 110, which consists of two paragraphs which deal with partly different situations, reads as follows:

> No Member State shall impose, directly or indirectly, on the products of other Member States any internal taxation of any kind in excess of that imposed directly or indirectly on similar domestic products.
>
> Furthermore, no Member State shall impose on the products of other Member States any internal taxation of such a nature as to afford indirect protection to other products.

Hence both higher levels of internal taxation on imported products compared to similar domestic products and other kinds of taxation imposed on the products of other Member States which have a protective effect are prohibited. The Court of Justice has made clear that a system of taxation is compatible with Article 110

[129] Case C-90/94 *Haahr Petroleum* ECLI:EU:C:1997:368, para 19. [130] Ibid, para 20.

[131] There are, however, some areas, notably VAT, where harmonising legislation has been adopted in accordance with the procedure in Art 113 TFEU.

[132] See further Barnard *The Substantive Law of the EU* (n 25) 53.

[133] Joined Cases C-393/04 and C-41/05 *Air Liquide Industries Belgium* ECLI:EU:C:2006:403, para 55.

TFEU only if it is so arranged as to exclude any possibility of imported products being taxed more heavily than similar domestic products.[134]

The applicability of Article 110 is wide. It is not only taxes in the narrow sense on products as such or on their use, but also other charges, that may be covered. In *Stadtgemeinde Frohnleiten* the Court of Justice found that a levy on the operator of a waste disposal site the rate of which depended at least partly on the weight and nature of the waste deposited was covered by this Article.[135]

Of vital importance with respect to environmental taxes is, however, the fact that each Member State is free to establish a tax system which differentiates between certain products, even products which are similar within the meaning of Article 110 (1), on the basis of objective criteria, including the manner in which a product is produced and the raw materials used for its production. In order to be allowed, such differentiation must pursue objectives which are themselves compatible with the requirements of the Treaties and EU secondary law, and the detailed rules must be such as to avoid any form of discrimination, direct or indirect, against imports from other Member States or any form of protection of competing domestic products.[136] Genuine environmental concerns are therefore generally not problematic as a ground for differentiation of taxation. The important point is that no distinction must be made based on the origin of the goods and that care must be taken to devise the tax so that no protective effect is otherwise afforded.

Further Reading

C Barnard *The Substantive Law of the EU: The Four Freedoms* (Oxford University Press, 2013)

M S Jansson and H Kalimo 'De Minimis meets "Market Access": Transformations in the Substance—and the Syntax—of EU Free Movement Law?' (2014) 51 *Common Market Law Review* 523–58

I Lianos 'Shifting Narratives in the European Internal Market: Efficient Restrictions of Trade and the Nature of "Economic" Integration' (2010) 21 *European Business Law Review* 705–60

G Mathisen 'Consistency and Coherence as Conditions for Justification of Member State Measures Restricting Free Movement' (2010) 47 *Common Market Law Review* 1021–48

N de Sadeleer *EU Environmental Law and the Internal Market* (Oxford University Press, 2014)

[134] Case C-90/94 *Haahr* (n 129), para 34.
[135] Case C-221/06 *Stadtgemeinde Frohnleiten* ECLI:EU:C:2007:657, paras 46–47.
[136] Case C-213/96 *Outokumpu* ECLI:EU:C:1997:540, paras 30–31.

4

Division and Exercise of Competence

4.1 Competence and Legal Bases

As discussed in Chapter 1, the EU is an international organisation set up through agreements between the Member States, that is, the Treaties. As such it is not a sovereign entity and does not have any autonomous source of authority, independent of the Member States. Within the legal order created by the Treaties, this is reflected in the principle of conferral according to which the EU may act only within the limits of the competences conferred upon it by the Member States in the Treaties. Competences not conferred upon the Union remain with the Member States (Art 5(2) TFEU). The specific provisions in the Treaties, primarily the TFEU, which define the EU's competence to take measures within a particular policy area, how these measures are to be decided, and for which aims they may be taken, are referred to as 'legal bases'. A legal basis thus provides the justification of, as well as instructions for, EU action within a particular policy area. It should be clarified that the taking of 'measures' in this context means the adoption of legal acts such as directives and regulations and decisions.

There are three different levels of competence that may be conferred upon the Union. The highest, or most extensive, is 'exclusive competence'. It means that the Member States have transferred all authority to adopt legally binding acts within the policy area at issue to the EU and may do so themselves only when EU law empowers them to do so or for the purpose of implementing Union acts (Art 2 (1) TFEU). This applies to a few areas, among them the important common commercial policy (CCP), that is, the regulation of trade with third countries, and the conservation of marine biological resources under the common fisheries policy (CFP) (Art 3 TFEU).

Several other areas, including environment, consumer protection, transport, energy, agriculture, and fisheries (excluding the conservation of marine biological resources), and not least the internal market, are subject to 'shared competence'. It means that both the Union and the Member States may legislate and adopt legally binding acts in these areas. However, the Member States may exercise their competence only as long as and to the extent that the Union has not exercised its competence (Art 2 (2) TFEU). As soon as EU measures have been adopted in an area subject to shared competence they must be analysed to determine the extent to which individual Member States may still act in that area.

There are also policy areas in which the EU only has competence to carry out actions to support, coordinate, or supplement the actions of the Member States. Among these are protection and improvement of human health, industry, tourism, education, and administrative cooperation. Legally binding EU acts relating to these areas may not entail harmonisation of Member States' laws or regulations. (Arts 5 (2) and 6 TFEU.)

This listing of competencies in the TFEU does not mean that it is always clear what sort of competence applies with respect to a specific measure that the Union or a Member State wish to take. It is, for example, easy to state that the CCP is subject to exclusive Union competence, whereas energy policy falls within the area of shared competence. But what about a measure through which the EU becomes party to an international agreement that regulates international trade in some kind of energy commodity? In reality, individual policy measures often affect more than one policy area. If these are associated with different levels of EU competence, the determination of which is the correct legal basis will be decisive for what competence is to be exercised by the Union and the Member States respectively. This requires careful analysis of each measure as well as of the legal bases concerned and is ultimately for the Court of Justice to decide. We will return to the principles governing the choice of legal basis in section 4.6.

Whether a specific measure falls, say, under the CCP or environmental policy is decisive for whether the Union has exclusive competence to act or if the competence is shared with the Member States. But the choice between two legal bases that are both subject to shared competence can also be highly significant. Measures which at least partly aim to protect the environment are, as will soon be further discussed, typically based on either the legal basis for the environment or that for the internal market, both of which prescribe shared competence. However, whether one or the other of these are chosen as the legal basis has important implications for the right of individual Member States to maintain or adopt provisions that pursue a higher level of environmental protection than that opted for by the Union. Put differently, the harmonising effect of EU legal acts differs depending on their legal basis.

In areas that are not subject to secondary EU law there is obviously no need to discuss legal bases. In such cases the Member States' right to adopt their own measures is only restricted by the Treaties. What that means has been discussed in Chapter 3.

The present chapter looks at the legal bases most commonly used to pursue environmental objectives, as well as those that have the greatest impact on the right of the Member States to take their own environmental protection measures in areas subject to secondary EU law.

As already noted, the EU has had explicit competence to take measures primarily aimed at protecting the environment since such a legal basis was added to the EEC Treaty by the Single European Act (SEA) in 1987. In practice, however, legal acts based on other legal bases are of equal importance for the environmental impact of EU law. This follows not least from the principle of integration (Art 11 TFEU) according to which environmental protection requirements must be integrated, when relevant, into the definition and implementation of EU policies and activities in all policy areas. It should also be noted that a number of legal acts having protection of human health and/or the environment as an important objective were adopted even before the then EEC got formal competence in the field

of environment.[1] That environmental policy objectives are pursued within other policy areas, and hence on other legal bases, is thus nothing new.

Here, the greatest attention will be devoted to the legal basis for measures the primary aim of which is environmental protection, that is, Article 192 TFEU, and to those which primarily aim at the establishment and functioning of the internal market, that is, Article 114 TFEU. The latter is of great importance both because core environmental objectives are pursued through such measures (even though environmental protection has not been deemed their primary objective) and because acts using this legal basis define the room for Member State action in many areas with significant implications for environmental and health protection. A few other legal bases will also be discussed in this chapter, although more briefly. These are the legal basis for agriculture and fisheries policy, which has inter alia been used to regulate environmental and health aspects of pesticides, the one for the CCP, and the legal basis for energy policy, both of which are areas in which environmental considerations play, or need to play, an important part.

Whereas the principles for choosing between different legal bases will be discussed in more detail towards the end of this chapter, it is appropriate to mention here that the choice essentially comes down to what is deemed to be the 'centre of gravity' of the legal act in question. This means that if a legal act has environmental protection as its centre of gravity it should be based on Article 192 TFEU even though it also aims to uphold the internal market, and vice versa. There are also examples of legal acts that have been based on more than one legal basis.

How then is one to know which legal basis has been used for the adoption of a specific legal act, such as a directive? It follows from the requirement of legal certainty and the duty to state reasons in Article 296 TFEU that any binding legal act must expressly indicate its legal basis.[2] This is usually done at the outset of the act. A statement like this: 'The European Parliament and the Council of the European Union, Having regard to the Treaty on the Functioning of the European Union, and in particular Article 192(1) thereof … have adopted this Directive' means that the Directive at issue is a measure adopted based on the EU's competence in the field of the environment.

4.2 Environmental Policy as Legal Basis (Article 192 TFEU)

As regards their legal basis, the history of EU measures primarily aimed at protecting the environment can be divided into five periods:

1. Before 1 July 1987, when the then EEC lacked explicit competence to adopt environmental measures;
2. Between 1 July 1987, when the Single European Act (SEA) gave the EEC such competence, and 31 October 1993;

[1] This is further discussed in section 4.2.
[2] Case C-370/07 *Commission v Council* EU:C:2009:590, paras 37–39.

3. Between 1 November 1993, when the Treaty of Maastricht established the European Union and gave the EC extended competencies with respect to environmental protection, and 30 April 1999;
4. Between 1 May 1999, when the Treaty of Amsterdam came into effect, and 30 November 2009;[3]
5. After 1 December 2009, when the Lisbon Treaty came into effect.

During the first period, in which the EEC lacked explicit competence with respect to the environment, legal acts pursuing environmental objectives were based on Article 100 or Article 235 of the EEC treaty, or on both of these. None of them were directly related to environmental protection but could still be used as bases for market-related environmental measures (Article 100), and for more clear-cut environmental measures (Article 235).[4] These measures were adopted unanimously by the Council.

This situation changed by the coming into force of the SEA, which introduced explicit provisions on environmental protection both in what was then Article 100a (later Article 95 EC and now 114 TFEU) and in Articles 130r to130t (later 174–176 EC and now 191–193 TFEU). Whereas Article 100 related to the approximation of laws, regulations, and administrative practices in the Member States for the establishment and functioning of the internal market, Articles 130r–130t were specifically dedicated to environmental measures. Environmental objectives pursued through measures based on Article 114 TFEU are thus part of the strategy to establish and maintain the internal market, whereas Articles 191–193 TFEU have been added to the Treaty to make environmental protection a policy in its own right of what is now the EU.

The Treaty of Maastricht introduced changes to both Article 100a and Articles 130r–130t, which enhanced the ability of the EC to pass legislation wholly or partly aimed at protecting the environment. Additional changes were effectuated through the Treaty of Amsterdam in 1999. These aimed to strengthen the EC's environmental policy by making it easier to adopt new common rules pursuing a high level of protection and to give the European Parliament (EP) increased influence on the drafting of legal acts in this area. This was accomplished partly by introducing decision-making by qualified majority for most environment-related acts, and partly by giving the EP more or less equal say as the Council in the adoption of new legal acts. The Treaty of Amsterdam also renumbered the articles of the EC Treaty.

The entry into force of the Lisbon Treaty on 1 December 2009 did not entail any significant substantive changes regarding the legal basis for environmental acts or for those having the functioning of the internal market as their primary objective. However, the Lisbon Treaty both changed the name of the treaty and renumbered

[3] The Treaty of Nice, which came into force on 1 February 2003, did not change the rules on exercise of competence in the field of environmental protection.

[4] Art 100 related to the approximation of laws for the functioning of the common market whereas Art 235 enabled the adoption, by unanimous action, of measures necessary for the attainment of one of the objectives of the Community relating to the common market also when the Treaty had not provided the necessary powers.

the provisions so that the legal basis for environmental measures is now found in Article 192 TFEU, whereas Article 114 TFEU provides the basis for measures primarily relating to the internal market.

Article 192 TFEU must be the basis for provisions which fall specifically within the environmental policy, as now defined in Article 191 TFEU, even if they have an impact on, inter alia, the functioning of the internal market. The Court of Justice has, for example, found a regulation aimed at defending the forest environment against the risks of destruction and degradation associated with fires and atmospheric pollution to inherently form part of the environmental policy, although it may have certain positive repercussions on the functioning of agriculture.[5] However, an EU measure cannot be part of the environmental policy merely because it takes account of environmental protection requirements.[6] Indeed, such requirements must, according to Article 11 TFEU, be a component of the EU's other policies, and the mere fulfilment of this integration principle does not justify basing a measure on the legal basis for environmental policy.[7]

4.2.1 Decision-making under Article 192

To be exact, the legal basis for adoption of environmental measures is Article 192, since that is the article defining how and by whom such measures may be adopted. But since Articles 191 and 193 define the content and effects of legal measures adopted based on Article 192, they too are discussed here.

Article 191 sets out the objectives of the EU policy on the environment, principles on which the policy shall be based, and factors that are to be taken account of. It also includes provisions on cooperation with third countries and with international organisations in the field of environmental protection. Article 193 provides for the right of individual Member States to maintain or adopt more stringent protective measures, as long as they are consistent with the Treaties.

According to Article 192 (1),

> The European Parliament and the Council, acting in accordance with the ordinary legislative procedure and after consulting the Economic and Social Committee and the Committee of the Regions, shall decide what action is to be taken by the Union in order to achieve the objectives referred to in Article 191.

In fact, based on this paragraph, they not only 'decide what action is to be taken' but also take action by adopting legal measures. The ordinary legislative procedure was discussed in section 1.7. The objectives referred to are those to the pursuit of which Union policy on the environment shall contribute, namely

- preserving, protecting and improving the quality of the environment;
- protecting human health;

[5] Joined Cases C-164/97 and C-165/97 *Parliament v Council* ECLI:EU:C:1999:99, para 16.
[6] Ibid, para 15. [7] Case C-336/00 *Huber* ECLI:EU:C:2002:509, para 33.

- prudent and rational utilisation of natural resources;
- promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change.

These have been discussed rather extensively in section 2.3 and will not be further commented upon here. The same goes for the fact that EU environmental policy shall aim at a high level of protection and shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source, and that the polluter should pay. On these principles, including their implications for the drafting and implementation of environmental policy measures, see section 2.4.

The application of the ordinary legislative procedure is subject to some exceptions. On some matters the Council still makes decisions by unanimity and after merely consulting the EP. These matters, which are listed in Article 192 (2), are:

(a) provisions primarily of a fiscal nature;
(b) measures affecting:
  – town and country planning,
  – quantitative management of water resources or affecting, directly or indirectly, the availability of those resources,
  – land use, with the exception of waste management;
(c) measures significantly affecting a Member State's choice between different energy sources and the general structure of its energy supply.

The ordinary legislative procedure can be made to apply also to these matters, but such a decision also requires unanimity in the Council. Taxes, town and country planning, the use of land and water, and the choice between different energy sources are matters that are seen by many to come close to the core of national sovereignty. It is therefore unlikely that they will become subject to the ordinary legislative procedure within the foreseeable future.[8] However, many measures adopted according to that procedure under Article 192(1) do have a more or less significant impact on, inter alia, land use or the choice between different energy sources.[9]

According to Article 192(3), general action programmes setting out priority objectives to be attained are to be adopted by the EP and the Council, acting in accordance with the ordinary legislative procedure. The contents and significance of these programmes were discussed in section 2.2.

4.2.2 Factors to be taken account of and financing

Article 191(3) sets out four factors that are to be taken account of in preparing the EU's policy on the environment. First of all, available scientific and technical

[8] During the negotiations of the Nice Treaty the Commission and some Member States tried, without success, to make the measures covered by Art 192(2) subject to majority decision-making.

[9] On the particular difficulties of drawing the line between environmental policy and land use, see N de Sadeleer *EU Environmental Law and the Internal Market* (Oxford University Press, 2014) 154.

data must be taken into account. The Court of Justice has acknowledged that the EU legislature has a broad discretion where its action involves political, economic, and social choices and where it is called on to undertake complex assessments and evaluations. But it is nonetheless obliged to base its choice on objective criteria appropriate to the aim pursued by the legislation in question, taking into account all the facts and the technical and scientific data available.[10] It may be recalled in this context that the European Environment Agency (EEA) is tasked with providing the Union and the Member States with objective, reliable, and comparable information enabling them to take the requisite measures to protect the environment. Also other agencies, such as the European Food Safety Authority (EFSA) and the European Chemicals Agency (ECHA), provide the Commission with scientific and technical data and expertise. And so may Member States and other actors do within the framework of various procedures. The collection and proper use of available scientific and technical data is also closely related to, and can even be deemed a prerequisite for, dispensing with the obligation that legal proposals shall aim at a high level of protection and be based on the precautionary principle.

The second factor to be taken account of is environmental conditions in the various regions of the Union. Framework directives providing for the adoption of national or regional environmental quality objectives and programmes of measures are an obvious way to adapt the environmental policy to regional differences.[11] It should be emphasised that it is explicitly environmental conditions that must be considered, rather than social and economic ones.

Account should furthermore be taken of the potential benefits and costs of action or lack of action. Obviously, the calculation of such costs and benefits can be terribly complex and subject to large uncertainties, not least since both costs and benefits of EU legislation often depend on how national administrations implement it. The methods chosen and the assumptions made can also generate very different outcomes. Nonetheless, there is an increasing emphasis in EU law-making on assessing the consequences of proposed acts. Also beyond the area of environmental policy, an impact assessment system has been put in place to 'prepare evidence for political decision-making and to provide transparency on the benefits and costs of policy choices'.[12]

The final consideration complements the previous ones by making sure that EU environmental measures are designed with due consideration for the economic and social development of the Union as a whole and the balanced development of its regions. This enables a differentiated level of environmental requirements when motivated by such things as socio-economic factors or differences in infrastructure, consumption patterns, or energy supply. The Water Framework Directive (Directive 2000/60) provides an example of such considerations by allowing the Member States,

[10] Case C-127/07 *Arcelor Atlantique and Lorraine and Others* ECLI:EU:C:2008:728, paras 57–58 with further references.

[11] See further Chapter 6.

[12] Communication from the Commission—Smart Regulation in the European Union (8 October 2010) COM(2010) 543 final, 5.

when implementing water-pricing policies to provide incentives for efficient use of water resources, to have regard to the social, environmental, and economic effects of the recovery as well as the geographic and climatic conditions of the region or regions affected.[13] However, most provisions of most environmental measures apply without any special differentiation between Member States or regions.

Article 192 also makes clear that it is the Member States that shall finance and implement the environmental policy. However, if a measure based on Article 192(1) involves costs deemed disproportionate for the public authorities of a Member State, such measure shall lay down appropriate provisions in the form of temporary derogations, and/or financial support from the Cohesion Fund (see section 2.6) set up to provide a financial contribution, inter alia, to projects in the field of environment.

4.2.3 More stringent protective measures

A core feature of the legal basis for environmental policy is the provision in Article 193 TFEU according to which:

> The protective measures adopted pursuant to Article 192 shall not prevent any Member State from maintaining or introducing more stringent protective measures. Such measures must be compatible with the Treaties. They shall be notified to the Commission.

This can also be phrased as legal acts based on Article 192 not entailing complete harmonisation but rather establishing a minimum level of protection. The obligation to notify more stringent measures enables the Commission to assess the general compatibility of such measure with the Treaties. However, a failure to notify does not in itself render more stringent measures unlawful.[14]

What then are 'more stringent protective measures'? The Treaties provide no definition. It should, however, be evident that for a measure adopted by a Member State to be more stringent than an EU measure it must generally take the same approach to the environmental problem at issue as the EU measure. The Court of Justice has referred to measures of domestic law which 'pursue the same objective' as an EU legal act or which 'follow the same policy of protecting the environment' as such an act.[15] As long as this requirement is fulfilled, there seem to be many ways in which a protective measure can be more stringent.

Stricter thresholds for what kind of waste may be accepted in landfills have been found to constitute a more stringent protective measure. The same goes for the fixing of earlier time limits for obtaining a certain target and the extending of restrictions (on landfilling) to a wider group of substances compared to what is

[13] [2000] OJ L 327/1, Art 9. For further examples of such differentiation, see J H Jans and H H B Vedder *European Environmental Law After Lisbon* (4th edn, Europa Law Publishing, 2011) 55.

[14] Case C-2/10 *Azienda Agro-Zootecnica Franchini* ECLI:EU:C:2011:502, para 53.

[15] Case C-6/03 *Deponiezweckverband Eiterköpfe* ECLI:EU:C:2005:222, paras 38 and 41. That a national measure that pursues different objectives does not qualify as a more stringent measure was made explicit in Case C-43/14 *ŠKO–Energo* ECLI:EU:C:2015:120, para 25.

required by an EU act.[16] Measures which, with a view to protecting wild bird populations, prohibit the construction of certain wind turbines in areas forming part of the Natura 2000 network, rather than merely making authorisation of such activity conditional upon a prior assessment of the environmental impacts, have also been found to constitute more stringent protective measures.[17] However, the imposition of a gift tax on the 'free' allocation of greenhouse gas emission allowances intended to obtain additional revenue for operators of photovoltaic power stations was not regarded by the Court of Justice as a more stringent protective measure since it was deemed to pursue objectives different from those of the ETS Directive (2003/87) setting up the emissions trading scheme.[18]

Some EU acts based on Article 192 explicitly state that they shall not prevent Member States from having more stringent measures. The Environmental Liability Directive (2004/35/EC) provides 'the identification of additional activities to be subject to the prevention and remediation requirements of this Directive and the identification of additional responsible parties' as examples of such permissible measures.[19]

In addition to being compatible with the Treaties, more stringent national measures must also, when relevant, be consistent with other pieces of secondary EU law. That follows from secondary EU law being based on the Treaties. The Treaty provisions that typically restrict the room for more stringent provisions are those prohibiting, while also providing for exceptions, quantitative restrictions on imports and exports and all measures having equivalent effect, that is, Articles 34–36 TFEU.[20] In addition to these, the rules on state aid (Arts 107–109 TFEU) and on discriminatory taxation (Arts 110–113 TFEU) may also conflict with more stringent measures depending on the nature and design of such measures (see further Chapter 3).

Can Article 193 always be used to justify more stringent protective measures regardless of how a specific legal act based on Article 192 is worded and what purposes it pursues? As previously noted, the 'centre of gravity' principle for choosing the correct legal basis means that a legal act may have, for example, the functioning of the internal market as an important objective even though it has been based on Article 192 TFEU, since environmental protection has been deemed to be the dominant objective. There is a clear risk that the functioning of the internal market is undermined if the Member States are allowed to apply more stringent measures in all situations. Pertinent examples are the very detailed rules on shipment of waste between the Member States in Regulation 1013/2006, which have obvious implications for the functioning of the market for, inter alia, recovery operations, but which are based on an article corresponding to the current Article 192 TFEU.

Both teleological reasons and the history of Article 193 have been adduced as arguments against an interpretation according to which the Member States have

[16] Case C-6/03 *Deponiezweckverband Eiterköpfe* (n 15), paras 44 and 49.

[17] Case C-2/10 *Azienda Agro-Zootecnica Franchini* (n 14), para 52. For further examples of more stringent measures see Case C-281/11 *Commission v Poland* ECLI:EU:C:2013:855.

[18] Case C-43/14 *ŠKO–Energo* (n 15), para 25.

[19] Directive 2004/35, Art 16.

[20] These were discussed in Chapter 3.

an unrestricted freedom to apply more stringent measures.[21] But one cannot easily disregard the fact that Article 193, which is clearly systematically superior to provisions in secondary law, unreservedly states that 'measures adopted pursuant to Article 192 shall not prevent any Member State from maintaining or introducing more stringent protective measures' as long as they are compatible with the Treaties. The Court of Justice has also repeatedly held that EU rules do not seek to effect complete harmonisation in the area of the environment.[22]

Nonetheless, it is evident from the case law that environmental measures do in fact contain provisions which pursue objectives other than environmental protection and that the Member States are not in all cases free to overrule these objectives by means of more stringent protective measures. In 2010, in a case concerning Directive 2000/53/EC on end-of-life vehicles, the Court of Justice found that more stringent protective measures must be compatible with the provisions of the treaties 'and, inter alia, must not frustrate the achievement of the objective pursued in the second instance by that directive, namely to ensure the smooth functioning of the internal market and to avoid distortions of competition in the Union'.[23] It is thus clear that objectives other than environmental protection pursued by 'Article 192 legal acts' can limit the right to take more stringent measures if such measures would undermine those objectives. It must be noted, however, that Directive 2000/53/EC is unusually explicit about pursuing additional objectives and even states in its preamble that national measures concerning end-of-life vehicles should be harmonised in order, first, to minimise the impact on the environment, 'and, second, to ensure the smooth operation of the internal market and avoid distortions of competition in the Community'.[24] Thus, it does not require much interpretation to conclude that the Directive was meant to provide a level of harmonisation required for the internal market to operate smoothly. That the French system gave the 'certificate of destruction', the use of which was prescribed by the Directive, a function different from that laid down in the Directive was found to jeopardise the coherence between the national approaches and, consequently, the functioning of the internal market. Therefore the Court concluded that the function of the document may not be altered even if the French system were to afford better traceability of end-of-life vehicles.[25]

As regards our initial question about the detailed rules on shipments of waste between Member States, it should be noted that Regulation 1013/2006 refers to the necessity of providing procedural safeguards for the notifier in the interests of, inter alia, the proper functioning of the internal market.[26] However, an obligation not to restrict procedural safeguards is anyway likely to follow from general principles of EU law and can thus not be disregarded by reference to Article 193 TFEU.

[21] Jans and Vedder *European Environmental Law After Lisbon* (n 13) 119.
[22] See Case C-2/10 *Azienda Agro-Zootecnica Franchini* (n 14), para 48 with further references.
[23] Case C-64/09 *Commission v France* ECLI:EU:C:2010:197, para 35.
[24] Directive 2000/53/EC of the European Parliament and of the Council on end-of-life vehicles—Commission Statements [2000] OJ L 269/34, preambular para 1.
[25] Case C-64/09 *Commission v France* (n 23), para 37. [26] Preambular para 19.

It should also be noted that the fact that a Member State considers its existing national provisions to be generally better able to ensure the objective pursued by an environmental directive than the provisions of the Directive itself does not release it from the obligation to transpose the Directive unless the national provisions actually ensure the full application of the Directive by the national authorities. Where the Directive seeks to create rights for individuals, the legal situation arising from those national rules must be sufficiently precise and clear and the persons concerned in a position to know the full extent of their rights and obligations and, where appropriate, to rely on them before the national courts.[27]

The Court of Justice has made clear that, when adopting stricter measures, Member States still exercise powers governed by EU law and are subject to the requirements of the Treaties. However, the EU principle of proportionality does not apply to stricter national measures to the extent that such measures go beyond the minimum requirements laid down by the EU environmental act at issue.[28]

The effects of Article 193 should not be exaggerated. The Member States are generally not very prone to adopt measures which go beyond what is required by EU environmental law (so-called 'gold-plating').[29] But it is important that the possibility for doing so exists, both for individual Member States that want to pursue a more ambitious environmental policy and because such measures can prompt further development of the common EU standards.

The obligation to notify the commission of more stringent national measures does not prevent Member States from applying such provisions pending a decision by the Commission. It is for the Commission to object to notified measures if it, for example, considers them to be incompatible with Articles 34 and 36 TFEU, or not to constitute more stringent measures but rather measures of a different nature than those required by the EU legal act at issue.

4.3 The Internal Market as a Legal Basis (Article 114 TFEU)

Article 114 TFEU is the core provision and the main legal basis in the chapter on 'approximation of laws' in the TFEU. 'Approximation' is used more or less synonymously with harmonisation; the main purpose of the EU measures adopted is to do away with regulatory differences between the Member States. More specifically, measures shall be taken on this legal basis for the achievement of the objectives set out in Article 26, that is, establishing or ensuring the functioning of the internal market as an area without internal frontiers in which the free movement of goods,

[27] Case C-194/01 *Commission v Austria* ECLI:EU:C:2004:248, para 39. See further section 1.5.

[28] Case C-6/03 *Deponiezweckverband Eiterköpfe* (n 15), paras 61–63.

[29] J H Jans and others '"Gold Plating" of European Environmental Measures?' (2009) 6 *Journal for European Environmental & Planning Law* 417–35; H T Anker, K de Graaf, R Purdy, and L Squintani 'Coping with EU Environmental Legislation—Transposition Principles and Practices' (2015) 27 *Journal of Environmental Law* 17–44, 28–31.

persons, services, and capital is ensured in accordance with the provisions of the Treaties. According to the Court of Justice, recourse to Article 114 TFEU is justified where there are differences between the laws, regulations, or administrative provisions of the Member States which are such as to obstruct the fundamental freedoms and thus have a direct effect on the functioning of the internal market. It can also be used when the aim is to prevent the emergence of future obstacles to trade resulting from multifarious development of national laws, provided that the emergence of such obstacles is likely. If either of these conditions is fulfilled, Article 114 TFEU may be relied upon as a legal basis even if other considerations, such as public health protection, are a decisive factor in the choices to be made.[30] The purpose of the laws and regulations among which differences have been identified or are likely to develop is thus not decisive, as long as the main reason for the EU legislator to want to harmonise them is to further the functioning of the internal market. The laws that are being harmonised can very well be motivated, for example, by environmental protection objectives.

In order to achieve 'approximation', harmonisation measures—that is, normally directives or regulations—are adopted by the EP and the Council in accordance with the ordinary legislative procedure (see section 1.7). This applies unless otherwise provided in the Treaties. Fiscal provisions and those relating to the free movement of persons or to the rights and interests of employed persons are exempted from this general provision and may instead be adopted unanimously by the Council after consulting the EP. (Arts 114 and 115.)

Before the entry into force of the SEA in 1987, what was then Article 100 EEC required unanimity for the adoption of harmonisation measures. In order to accelerate the realisation of the internal market a new Article 100a was added which enabled qualified majority decision-making in most cases. It also required the Council to cooperate with the EP. A full co-decision procedure was introduced in 1993 through the Treaty of Maastricht and is reflected in what is now the ordinary legislative procedure. This gives the EP the same level of influence as it has in the adoption of environmental measures under Article 192(1) TFEU. With the entering into force of the Treaty of Amsterdam in 1999, Article 100a became Article 95 EC, which in turn became Article 114 TFEU in 2009.

In its proposals for measures under Article 114 concerning health, safety, environmental protection, and consumer protection, the Commission is required to take as a base a high level of protection. This requirement, which was introduced by the SEA, emphasises the need to combine the promotion of economic objectives with a high level of protection of humans and the environment. The meaning of a 'high level of protection' was discussed in section 2.4.4. Here it is sufficient to recall that it is only the Commission that is under an obligation to take as a base a high level of protection. In doing so it shall in particular take account of any new development based on scientific facts. The EP and the Council, in whose power it is

[30] Case C-380/03 *Germany v Parliament and Council* ECLI:EU:C:2006:772, paras 36–39 and the case law cited there.

to amend and eventually adopt the legislative proposal, are merely required to seek to achieve such a level of protection.

Article 114 (10) provides for the inclusion of a safeguard clause in harmonisation measures. Directives and regulations having Article 114 as their legal basis shall, in appropriate cases, include a clause authorising the Member States to take, for one or more of the non-economic reasons referred to in Article 36 TFEU, provisional measures. Such measures must be subject to a Union control procedure. Safeguard clauses are further discussed in section 4.5.

4.3.1 National provisions derogating from a harmonisation measure

Since the main objective of a measure adopted according to Article 114 TFEU is precisely to remove disparities between the relevant rules and regulations of the Member States, every national provision which deviates from a harmonisation measure is a potential problem. At the same time there is a strong interest, at least among some Member States, not to be wholly deprived of the ability to pursue a higher level of environmental and health protection than the EU does through its harmonising measures.

To address this problem the SEA introduced what became known as the 'environmental guarantee', according to which:

> If, after the adoption of a harmonisation measure by the Council acting by a qualified majority, a Member State deems it necessary to apply national provisions on grounds of major needs referred to in Article 36, or relating to protection of the environment or the working environment, it shall notify the Commission of these provisions.
>
> The Commission shall confirm the provisions involved after having verified that they are not a means of arbitrary discrimination or a disguised restriction on trade between Member States.[31]

However, it gave rise to competing interpretations on a number of issues—including if it applied in respect of measures adopted by a State before it joined the EC and whether a Member State could rely on it even it if had not voted against the harmonising measure in the Council—some of which were eventually addressed by the Court of Justice.[32]

The Treaty of Amsterdam introduced amendments which made it clear that it was not only the introduction of new provisions but also the maintenance of existing ones that should be notified and assessed by the Commission. A certain time limit within which the Commission has to make a decision was also introduced.

The preconditions for maintaining national provisions are now set out in Article 114(4), which reads:

> If, after the adoption of a harmonisation measure by the European Parliament and the Council, by the Council or by the Commission, a Member State deems it necessary to

[31] Art l00a(4) EEC. [32] See, eg, Case C-319/97 *Kortas* ECLI:EU:C:1999:272.

maintain national provisions on grounds of major needs referred to in Article 36, or relating to the protection of the environment or the working environment, it shall notify the Commission of these provisions as well as the grounds for maintaining them.

Unlike in the case of the original wording, there is now no doubt that a Member State may rely on this provision regardless of what decision-making procedure applied for the adoption of the harmonisation measure and regardless of how it voted. It should also be noted that the provision applies also with respect to measures adopted by the Commission. Since a legislative act, according to Article 290 TFEU, may only delegate to the Commission the power to adopt acts to supplement or amend certain 'non-essential elements' of the legislative act, measures adopted by the Commission shall, in principle, not generally affect the level of protection pursued. But in practice, seemingly detailed and technical measures, like the inclusion of a substance in an Annex to a directive or regulation, or its removal therefrom, can be controversial and have quite significant effects on the level of protection pursued.

When a Member State has notified provisions which it deems it necessary to maintain, the Commission shall assess the compatibility of these provisions with the conditions in Article 114(6), including whether or not they are a means of arbitrary discrimination or a disguised restriction on trade. These will be further discussed after the additional requirements have been presented; these must be met when a Member State wishes to introduce new provisions in an area subject to a harmonisation measure.

4.3.2 New derogating national provisions

The possibility of introducing new national provisions once a harmonising EU measure has been adopted is now regulated in paragraph 5 of Article 114, according to which

if, after the adoption of a harmonisation measure by the European Parliament and the Council, by the Council or by the Commission, a Member State deems it necessary to introduce national provisions based on new scientific evidence relating to the protection of the environment or the working environment on grounds of a problem specific to that Member State arising after the adoption of the harmonisation measure, it shall notify the Commission of the envisaged provisions as well as the grounds for introducing them.

Compared to the one on the maintaining of national provisions, this paragraph introduces a number of additional conditions, some of which are very demanding indeed, that have to be met if the national provisions are to be approved. According to the Court of Justice this difference is motivated by the fact that new national legislation is more likely to jeopardise harmonisation since the EU institutions could not, by definition, have taken account of it when drawing up the harmonisation measure.[33]

[33] Case C-512/99 *Germany v Commission* ECLI:EU:C:2003:40, para 41.

In the case of new national provisions the 'mandatory requirements' of Article 36 TFEU are not relevant and only grounds relating to protection of the environment or the working environment are accepted. This gives rise to the interesting question of whether 'the protection of health and life of humans, animals or plants', which is listed in that Article, cannot justify new national provisions? It cannot be disregarded that a reference to Article 36 has been included in relation to the maintenance of national provisions but not when it comes to the introduction of new ones. However, that environmental protection should have been granted a more privileged status in this regard than protection of human life and health seems unlikely, since it is evident that the latter is the more weighty concern in other situations.[34] It should also be recalled that 'protecting human health' is in fact one of the objectives to be pursued by the EU's environmental policy and thus falls, at least as long as the threats to human health are related to the conditions of the physical environment in which humans live, within the concept of protection of the environment. A reasonable interpretation of the absence of a reference to Article 36 in Article 114(5) is thus that the other grounds listed in Article 36, including national treasures possessing artistic, historic, or archaeological value and the protection of industrial and commercial property, cannot justify new national provisions, whereas the protection of human life and health is anyway not dependent on a reference to Article 36. It should also be noted that 'public health issues', such as the health effects of tobacco and alcohol, may not be subject to harmonising measures and should thus not give rise to any need for national derogations (Art 168(5)).

As regards the problem to be addressed by the new national provisions, it must both be 'specific' to the Member State concerned and have arisen after the adoption of the harmonisation measure.

Clearly, a problem that is generally occurring throughout the Union can hardly be specific to a Member State. However, 'specific' is not to be equated with the more restrictive notion 'unique'. The General Court has indicated, and the Court of Justice confirmed, that the existence of 'unusual' ecosystems in a Member State could suffice to render a problem specific to that State.[35] The General Court has also talked of 'local particularities' as being able to constitute a specific problem.[36] It has moreover found that a remedy at the national level, rather than an amendment to the relevant EU legislation, could, at least initially, be appropriate 'either because of the purely local nature of the phenomenon, or because of the

[34] See, eg, Case C-333/14 *Scotch Whisky Association and Others* ECLI:EU:C:2015:845, para 35.

[35] Joined Cases T-366/03 and T-235/04 *Land Oberösterreich v Commission and Austria v Commission* ECLI:EU:T:2005:347 and ECLI:EU:T:2005:347, para 67, and Joined Cases C-439/05 P and C-454/05 P *Land Oberösterreich v Commission and Austria v Commission* ECLI:EU:C:2007:510 and CLI:EU:C:2006:442, paras 64–65.

[36] Case T-182/06 *Netherlands v Commission* ECLI:EU:T:2007:191, para 65. See also Commission Decision 2002/59/EC concerning draft national provisions notified by the Kingdom of the Netherlands under Article 95(5) of the EC Treaty on limitations on the marketing and use of creosote-treated wood [2002] OJ L 23/37 in which the Commission accepted that the high extension of low-depth groundwater areas and the extensive use of creosote-treated wood for applications susceptible to contact with groundwater constituted a problem specific to the Netherlands.

particular characteristics which it exhibits locally and which are incompatible with the delays inherent in the negotiation and entry into force of new harmonised rules'. It is thus necessary to envisage the requirement of national specificity of a problem 'from the angle of the aptness or inaptness of the harmonisation of the applicable [EU] rules to confront adequately the difficulties encountered locally'.[37] Although demanding, the requirement for the problem to be specific to the Member State concerned should thus not be as prohibitive as it may first appear.

The problem must also have arisen after the adoption of the harmonisation measure. The logic underpinning this condition is that problems that were known at the time of the adoption of the harmonisation measure have already been considered by the EU legislator, or could at least have been introduced into the discussion by the Member State concerned. If, however, a problem did in fact exist but was not known to either the relevant EU institutions or to the Member State in question, that should not preclude its consideration once it becomes known.[38] Reasonably, the same logic should apply if the extent of the problem has grown dramatically since the adoption of the harmonisation measure, provided that such aggravation of the problem should not reasonably have been foreseen at that time.

As for the need to base the national provisions on new scientific evidence, it is reasonable that new conclusions drawn on the basis of pre-existing data count as new scientific evidence.[39] Data in itself, without the application of an appropriate scientific method, cannot constitute the basis of sound decision-making. And to preclude the use of scientific evidence on the ground that the data on which it is based may previously have been interpreted in a different way would be contrary to the very idea of science as a generator of increasingly better understanding of the world around us. The requirement for 'evidence' must also be interpreted in the light of the precautionary principle. It can thus not be a matter of requiring that the evidence be completely uncontested.[40] In fact, the Court of Justice has even held that it may suffice that a Member State makes an assessment of the risk to public health which is different from that made by the EU legislature in the harmonisation measure, even if such assessment is not based on new or different scientific evidence.[41]

The determination of whether the conditions of Article 114(5) are satisfied may necessitate complex technical evaluations, in which case the Commission enjoys a wide discretion. It must, however, examine carefully and impartially all

[37] Case T-182/06 *Netherlands v Commission* (n 36), paras 61 and 64.

[38] G A Sharpston has argued that a problem which was latent at the time of the adoption of a harmonising measure may, depending on the circumstances, be regarded as having arisen after that adoption, if it is only subsequently revealed. Opinion of Advocate General Sharpston in Joined Cases C-439/05 P and C-454/05 P, ECLI:EU:C:2007:285, para 132.

[39] This was also the view of G A Sharpston in her opinion in Joined Cases C-439/05 P and C-454/05 P (n 38).

[40] On the precautionary principle see section 2.4.5.

[41] Case C-3/00 *Denmark v Commission* ECLI:EU:C:2003:167, para 63.

the relevant elements of the individual case and give an adequate statement of the reasons for its decision which may be subject to review by the Court. The Commission must in particular take account of all available new scientific and technical data.[42]

4.3.3 The Commission's assessment

As mentioned previously, it is for the Commission to approve or reject the national provisions within six months of the notification. The decision must be based on an assessment of the facts to determine 'whether or not [the national provisions] are a means of arbitrary discrimination or a disguised restriction on trade between Member States and whether or not they shall constitute an obstacle to the functioning of the internal market'.[43]

The Commission must examine whether the grounds put forward by the Member State are well founded.[44] In doing this the Commission is not required to observe the right to be heard before taking a decision, that is, the Member State does not have the right to be consulted between the submission of the notification and the decision.[45] However, as part of its assessment of the merits of the grounds put forward by the Member State, the Commission may need to have recourse to outside experts.

With respect to notifications of new national provisions, the Commission must first determine whether the Member State has satisfied the conditions set out in paragraph 5.[46] Since these are so demanding, it is mostly in relation to notifications of existing provisions that the Commission has reason to engage with the conditions of paragraph 6. These are largely the same conditions as those in Article 36 TFEU. Guidance can thus be taken from how they have been interpreted in that context. There is, however, one significant difference. To the familiar prohibitions on arbitrary discrimination and disguised restrictions on trade between Member States has, in Article 114(6), been added the requirement that the national provision must not constitute an obstacle to the functioning of the internal market. This is a very peculiar condition. If taken literally it would pretty much preclude any national provisions derogating from a harmonising measure, since such a measure is only justified in areas where differences between the laws of the Member States may have a direct effect on the functioning of the internal market. The Commission has itself acknowledged the unreasonableness of this condition if strictly construed. In order to 'preserve the useful character' of the assessment it therefore construes it as a prohibition on any *disproportionate* effect in relation to the pursued objective.[47] The assessment is thus one of proportionality.

[42] Case C-405/07 P *Netherlands v Commission* ECLI:EU:C:2008:613, paras 55, 56, and 61.
[43] Art 114(6) TFEU. [44] Case C-512/99 *Germany v Commission* (n 33), para 44.
[45] Case C-3/00 *Denmark v Commission* (n 41), para 50.
[46] Case C-512/99 *Germany v Commission* (n 33), para 89.
[47] Commission Decision 2010/561/EU concerning national provisions notified by Denmark on the addition of nitrite to certain meat products [2010] OJ L 247/55, para 60 and Commission Decision 2012/160/EU concerning the national provisions notified by the German Federal Government

As regards whether the measures are a means of arbitrary discrimination, the Commission typically confines itself to control if the measures apply to both domestic products and products made in other Member States, and if so conclude that there is no discrimination.[48] If the measures are in fact discriminatory it must go on to assess whether the discrimination is justified.

As for the required absence of a disguised restriction on trade, the Commission looks at whether the national measures are being applied for inappropriate reasons and in effect constitute economic measures to impede the importation of products from other Member States, that is, means of indirectly protecting national production.[49] This includes national provisions constituting a disproportionate obstacle to the internal market.[50]

The Commission has repeatedly pointed out that it has to take as a basis 'the grounds' put forward by the notifying Member State and that the responsibility to prove that the national measures are justified lies with that State.[51] However, the Commission is required to take account of all available new scientific and technical data when making its decision.[52]

If the Commission approves the notified measures it can limit its approval to a certain period of time or until specific measures are taken by the EU legislator.[53]

To avoid situations where the Commission's inaction deprives a Member State of its right to maintain or adopt deviating national provisions without even having a decision which can be challenged before the Court, the Treaty of Amsterdam introduced a provision according to which notified national provisions are deemed to have been approved if the Commission does not make a decision within six months of the notification. When justified by the complexity of the matter and in the absence of danger for human health, this period may be extended for a further period of up to six months.

A notification does not relieve a Member State of the obligation to meet the requirements of a harmonisation directive. It is thus not authorised to deviate from

maintaining the limit values for lead, barium, arsenic, antimony, mercury and nitrosamines, and nitrosatable substances in toys beyond the entry into application of Directive 2009/48/EC of the European Parliament and of the Council on the safety of toys [2012] OJ L 80/19, para 89.

[48] Dec 2010/561/EU (n 47), paras 55–56. [49] Ibid, paras 57 and 84.

[50] Commission Decision (EU) 2015/826 concerning national provisions notified by Denmark on the addition of nitrite to certain meat products [2015] OJ L 130/10, para 51.

[51] See, eg, Dec 2010/561/EU (n 47), para 38; Dec 2015/826 (n 50), para 30.

[52] Case C-405/07 P *Netherlands v Commission* (n 42), para 61.

[53] The Commission has repeatedly approved more stringent Danish provision on the addition on nitrates to meat products for a period of three years. The approval has been renewed twice, most recently by Commission decision 2015/826 (n 50). Finnish provisions prohibiting the placing on the Finnish market of phosphorous mineral fertilisers with a cadmium content exceeding 50 mg for each kilogram of phosphorous are approved until harmonised measures on cadmium in fertilisers are applicable at EU level. Commission Decision 2006/348/EC on the national provisions notified by the Republic of Finland under Article 95(4) of the EC Treaty concerning the maximum admissible content of cadmium in fertilisers [2006] OJ L 129/25.

the harmonising measure pending the Commissions decision, provided, if it is a directive, that the time for implementing it has ended.[54]

When a Member State is authorised to maintain or introduce national provisions derogating from a harmonisation measure, the Commission must immediately examine whether to propose an adaptation to the harmonisation measure. Since the derogation means that there is no longer full harmonisation, it is logical that the Commission in such a case assesses if the harmonisation measure may be adopted to accommodate the derogation. The derogation also indicates that the EU measure may not provide a high level of protection. The Court of Justice has pointed out that such an adaptation could be appropriate when the national provisions offer a level of protection which is higher than the harmonisation measure as a result of a divergent assessment of the risk to public health.[55]

If the Commission or any Member State considers that another Member State is making improper use of the powers provided for in Article 114, it may bring the matter directly before the Court of Justice.

Interestingly, neither the fourth nor the fifth paragraph of Article 114 explicitly requires that the national provisions aim for a higher level of protection compared to the harmonising measure, whereas paragraph 7 refers to national provisions 'derogating' from a harmonisation measure. Does it mean that a Member State could be authorised to maintain or adopt national provisions that do not pursue a higher level of protection, or even pursue a lower level, compared to the EU standard? This is hardly a reasonable interpretation. As for the purpose of the so-called 'environmental guarantee', it was introduced through the SEA in response to concerns by some Member States that they would be forced to lower their higher level of protection relative to other Member States. The reason for introducing the possibility to maintain or introduce new national provisions was thus to enable a higher level to be maintained or introduced under certain specific conditions. It is also hard to see how national provisions pursuing a lower level of protection could be deemed 'necessary' by new scientific evidence relating to the protection of the environment. In fact, the General Court has referred explicitly to a need to prove that notified national provisions offer a higher level of protection.[56]

Conceivably, there could be situations in which a lower level of environmental protection is necessary to adequately address a problem relating to the working environment or one pertaining to another aspect of the environment. In such a case a lowering of the protection of the environment in one regard could be justified in order to address a problem pertaining to another aspect of the environment or to the working environment.[57]

[54] Case C-319/97 *Kortas* (n 32), para 38 and Case T-234/04 *The Netherlands v Commission* ECLI:EU:T:2007:335, para 63.

[55] Case C-3/00 *Denmark v Commission* (n 41), para 65.

[56] Case T-198/12 *Germany v Commission* ECLI:EU:T:2014:251, para 89.

[57] See, for such a reasoning, Jans and Vedder *European Environmental Law After Lisbon* (n 13) 125.

4.4 Other Legal Bases

4.4.1 Agricultural and fisheries policy, Article 43 TFEU

According to Article 38 TFEU, the Union shall define and implement a common agriculture and fisheries policy covering the products listed in Annex I, including live animals, meat, fish, and dairy produce. Agriculture, fisheries, and trade in agricultural products are to be part of the internal market. 'Agricultural products' refers to the products of the soil, of stock farming, and of fisheries and products of first-stage processing directly related to these products. References to the common agricultural policy (CAP) or to agriculture in the TFEU are understood as also referring to fisheries.

The objectives of the CAP, set out in Article 39 TFEU, are, briefly put, to increase agricultural productivity; to ensure a fair standard of living for the agricultural community; to stabilise markets; to assure the availability of supplies; and to ensure that supplies reach consumers at reasonable prices. These objectives are to be attained through the establishment of a common organisation of agricultural markets (Art 40). The legal basis for such measures is found in Article 43 TFEU. The provisions necessary for the pursuit of the objectives of the CAP and the common fisheries policy (CFP) are decided by the EP and the Council, acting in accordance with the ordinary legislative procedure. Before the Treaty of Lisbon the Council only had to hear the EP, which thus did not have much real influence on the decisions. However, measures on fixing prices, levies, aid and quantitative limitations, and the fixing and allocation of fishing opportunities are still adopted by the Council alone on a proposal from the Commission.[58]

According to the Court of Justice, Article 43 is the appropriate legal basis for any legislation concerning the production and marketing of listed agricultural products which contributes to the achievement of one or more of the objectives of the CAP.[59]

It must be noted that, unlike the situation before the entry into force of the Treaty of Lisbon, Article 43 now is also the legal basis for the common fisheries policy.[60]

The Court of Justice has found that, since environment protection is to be integrated into other policy areas, including agriculture, such protection should be viewed as an objective which forms part of the CAP.[61]

Once the EU has legislated for the establishment of the common organisation of the market in a given sector, Member States must refrain from taking

[58] On the choice between these two procedures for the adoption of measures concerning certain fishing activities see Joined cases C-124/13 and C-125/13 *Parliament and Commission v Council* ECLI:EU:C:2015:790.

[59] Case 68/86 *United Kingdom v Council* ECLI:EU:C:1988:85, para 14.

[60] On the relationship between the previous Art 37 EC and the current Art 43 TFEU see Joined cases C-124/13 and C-125/13 *Parliament and Commission v Council* (n 58), para 56.

[61] Case C-428/07 *Horvath* ECLI:EU:C:2009:458, para 29.

any measure which might undermine or create exceptions to it.[62] However, establishment of such a common organisation does not prevent the Member States from applying national rules which pursue an objective of general interest other than those covered by the common organisation, even if those rules are likely to have an effect on the functioning of the common market in the sector concerned.[63]

Article 43 is quiet on environmental considerations but it follows from Article 11 TFEU that environmental protection requirements must be integrated, when relevant, into policies and activities in this area. Among the legal acts based wholly or partly on Article 43 that have environmental protection as an important objective are the regulations on plant protection products (Regulation 1107/2009) and the one establishing rules for direct payments to farmers under support schemes within the framework of the CAP.[64] Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources provides an example of a legal act relating specifically to agricultural activities but which uses the legal basis for environmental policy.[65]

Fisheries are mainly regulated through Regulation (EU) No 1380/2013 on the Common Fisheries Policy, based on Article 43(2) TFEU. The CFP shall ensure that fishing and aquaculture activities are environmentally sustainable in the long term and are managed in a way that is consistent with the objectives of achieving economic, social, and employment benefits, and of contributing to the availability of food supplies (Art 1).

As previously noted, the conservation of marine biological resources under the CFP is, unlike the rest of the common agricultural and fisheries policies, subject to exclusive EU competence (Art 3 TFEU). However, Member States may take non-discriminatory measures for the conservation and management of fish stocks and the maintenance or improvement of the conservation status of marine ecosystems within their respective territorial sea as long as the Union has not adopted conservation measures specifically for that area or for the specific problems identified by the Member State.[66]

[62] Case 83/78 *Pigs Marketing Board* ECLI:EU:C:1978:214, para 56. On the organisation of the markets in agricultural products and fishery and aquaculture products see Regulation (EU) No 1308/2013 of the European Parliament and of the Council establishing a common organisation of the markets in agricultural products … [2013] OJ L 347/671, and Regulation (EU) No 1379/2013 of the European Parliament and of the Council on the common organisation of the markets in fishery and aquaculture products, … [2013] OJ L 354/1, respectively.

[63] Case C-462/01 *Hammarsten* ECLI:EU:C:2003:33, para 29 with further references.

[64] Regulation (EU) No 1307/2013 of the European Parliament and of the Council establishing rules for direct payments to farmers under support schemes within the framework of the common agricultural policy and repealing Council Regulation (EC) No 637/2008 and Council Regulation (EC) No 73/2009 [2013]OJ L 347/608.

[65] Council Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources [1991] OJ L 375/1.

[66] Regulation (EU) No 1380/2013 of the European Parliament and of the Council on the Common Fisheries Policy … [2013] OJ L 354/22, Art 20.

4.4.2 Common commercial policy, Articles 206 and 207 TFEU

The basis for the common commercial policy (CCP) is the establishment, in accordance with Articles 28–32 TFEU, of a customs union. That includes not only the prohibition between Member States of customs duties on imports and exports and of all charges having equivalent effect, but also the adoption of a common customs tariff in their relations with third countries. The customs union shall contribute to the harmonious development of world trade, the progressive abolition of restrictions on international trade and on foreign direct investment, and the lowering of customs and other barriers (Art 206 TFEU). According to Article 207, the CCP shall be based on uniform principles, inter alia with regard to changes in tariff rates, the conclusion of trade agreements relating to trade in goods and services, the achievement of uniformity in measures of liberalisation, and export policy. It is for the EP and the Council to adopt the measures defining the framework for implementing the CCP in accordance with the ordinary legislative procedure.

There is no explicit requirement regarding environmental considerations in the CCP but, as for other policy areas, it follows from Article 11 TFEU that environmental protection requirements must be integrated, when relevant, into policies and activities forming part of the CCP.

As previously noted, the CCP is among the areas in which the EU has exclusive competence (Art 3 TFEU). Once it has been established that an issue falls within the area of the CCP there is hence no need to discuss division of competence between the Union and its Member States.

The relationship between the CCP and environmental policy becomes pertinent particularly in relation to the regulation of potentially hazardous substances or products, such as waste, chemicals, and GMOs. An example is provided by Regulation 649/2012 concerning the export and import of hazardous chemicals, which is based on both Article 192(1) and Article 207, that is, environmental policy and the CCP.[67]

The Court of Justice has entertained a number of cases concerning the relationship between these legal bases in the context of the approval and implementation of international agreements.[68] It has held that the mere fact that an EU act is liable to have implications for international trade is not enough to conclude that it must fall within the CCP. To do so it should relate specifically to international trade in that it is essentially intended to promote, facilitate, or govern trade and has direct and immediate effects on trade.[69]

[67] Regulation (EU) No 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals [2012] OJ L 201/60.

[68] See, eg, Case C-94/03 *Commission v Council* ECLI:EU:C:2006:2; Opinion 2/00 of 6 December 2001 ECLI:EU:C:2001:664, C-178/03 *Commission v Parliament and Council* ECLI:EU:C:2006:4, and Case C-411/06 *Commission v Parliament and Council* ECLI:EU:C:2009:518.

[69] Opinion 2/00 (n 68), para 40.

4.4.3 Transport, Article 91 TFEU

According to Article 90 TFEU the EU shall have a common transport policy. For that purpose the EP and the Council shall, according to Article 91 TFEU and acting in accordance with the ordinary legislative procedure, inter alia lay down common rules applicable to international transport to or from the territory of a Member State or passing across the territory of one or more Member States, measures to improve transport safety, and any other appropriate provisions. Whereas the whole Title VI (Arts 90–100) applies to transport by rail, road, and inland waterways, the EP and the Council may also lay down appropriate provisions for sea and air transport (Arts 91 and 100).

Examples of legal acts partly concerned with environmental and health protection using this legal basis are Directive 2008/68/EC on the inland transport of dangerous goods[70] and Directive 2005/35/EC on ship-source pollution,[71] the latter of which is discussed in section 10.5.

Title VI on transport does not include any general provisions authorising the Member States to introduce or maintain rules that deviate from the EU measures adopted based on Articles 91 or 100. Recourse must therefore be had to the specific legal acts adopted to establish the extent of their harmonising effect. Whereas Directive 2008/68/EC explicitly states that each Member State should retain the right to regulate or prohibit the transport of dangerous goods within its territory, on grounds other than safety, such as environmental protection, Directive 2005/35/EC refers to the need to harmonise the implementation of MARPOL 73/78[72] at EU level.[73]

4.4.4 Energy, Article 194 TFEU

The EU has a long history of taking measures within the area of energy policy. However, it was only through the Treaty of Lisbon that energy got its own legal basis. According to Article 194 TFEU, the Union policy on energy shall aim to ensure the functioning of the energy market, ensure security of energy supply in the Union, promote energy efficiency and energy saving and the development of new and renewable forms of energy, and promote the interconnection of energy networks.

Without prejudice to the application of other provisions of the Treaties, the EP and the Council, acting in accordance with the ordinary legislative procedure, shall establish the measures necessary to achieve these objectives.[74] The measures shall be

[70] Directive 2008/68/EC of the European Parliament and of the Council on the inland transport of dangerous goods [2008] OJ L 260/13.

[71] Directive 2005/35/EC of the European Parliament and of the Council on ship-source pollution and on the introduction of penalties for infringements [2005] OJ L 255/11.

[72] International Convention for the Prevention of Pollution from Ships as amended by its 1978 protocol (MARPOL 73/78) 1340 UNTS 184.

[73] Preambular paras 3 and 11, respectively.

[74] Measures primarily of a fiscal nature are subject to a special legislative procedure and require unanimity in the Council.

taken in the context of the establishment and functioning of the internal market and with regard to the need to preserve and improve the environment. However, there is an important caveat, namely that such measures shall not affect a Member State's right to determine the conditions for exploiting its energy resources, its choice between different energy sources, and the general structure of its energy supply.[75] The provisions of Article 194 are also without prejudice to Article 192(2)(c), which allows for such measures to be adopted as part of the environmental policy and in accordance with a special legislative procedure under which the Council acts unanimously and only needs to consult the EP.

Before the introduction of Article 194 TFEU energy-related measures could be adopted within other policy areas. The directive on the energy performance of buildings was adopted as part of the environmental policy.[76] That such measures shall now be adopted based on Article 194 is clear from the fact that a recast of the directive on energy performance of buildings has been adopted based on that article.[77] The Court of Justice has found that an act which, as regards its aim and content, may be considered necessary to achieve the objectives of the Union policy on energy must be based on Article 194(2) TFEU.[78]

Article 194 does not generally authorise the Member States to introduce or maintain more environmentally stringent measures. The new directive on the energy performance of buildings (Directive 2010/31/EU) is, however, explicit about only laying down minimum requirements (Art 1). There are also legal acts based on the energy policy competence that aim for full harmonisation.[79]

4.5 The Extent of the Harmonising Effect

Much attention has been given here to the importance of which legal basis is used for legal acts and the implications of that choice for the harmonising effect of such acts. However, it must be recognised that the notion of harmonisation is more complex than just a matter of choice between legal bases entailing either complete harmonisation or minimum harmonisation. As noted above, market-related legal acts can allow for more protective national measures and environmental acts can include elements of complete harmonisation. In the end it is often the substantive contents of a legal act more than anything else that determine the level of harmonisation which it affects.

[75] This caveat has generated considerable uncertainty as to the actual scope of the Union's competence in this area. See, inter alia, A Johnston and E van der Marel 'Ad Lucem? Interpreting the New EU Energy Provision, and In Particular the Meaning of Article 194(2) TFEU' (2013) 22 *European Energy and Environmental Law Review* 181–99.

[76] Directive 2002/91/EC of the European Parliament and of the Council on the energy performance of buildings [2003] OJ L 1/65.

[77] Directive 2010/31/EU of the European Parliament and of the Council on the energy performance of buildings [2010] OJ L 153/13.

[78] Case C-490/10 *Parliament v Council* ECLI:EU:C:2012:525, para 73.

[79] Regulation (EU) No 994/2010 of the European Parliament and of the Council concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC [2010] OJ L 295/1.

That a certain activity or product is subject to harmonising EU legislation does not mean that all measures that a Member State may want to take in relation to such an activity or such product have been harmonised. An illustrative example is provided by the *Toolex Alpha* case in which the Court of Justice assessed a Swedish prohibition of a certain chemical substance (trichloroethylene) against relevant EU legislation. Despite there being at least three different EU acts dealing with risk assessment, classification, and marketing of substances such as the one in question, none actually precluded the prohibition of industrial use of trichloroethylene by a Member State.[80] In another case the Court concluded that in the absence of provisions to the contrary, restrictions on the marketing and use in the Member States of certain listed substances and preparations did not apply to products treated with such substances or preparations.[81] However, in *Nordiska Dental* the Court of Justice rejected the contention that Directive 93/42/EEC[82] concerning medical devices did not preclude a prohibition on exportation of dental amalgams containing mercury, since the objective of the Directive related to safety and health protection with regard to the use of medical devices whereas the national measure had environmental protection at its objective.[83] This has been criticised as extending the harmonising effect of product-related regulation too far, thereby preventing the Member States from taking environmental protection measures even in cases where the EU act is not in fact concerned with protection of the environment in the wider sense.[84]

In a case concerning technical specifications for fuels the Court of Justice pointed out that the harmonisation achieved by Directive 98/70 only applies within the limits of the scope *ratione materiae* of that Directive,[85] that is, when the fuel technical specifications which that directive seeks to harmonise are at issue. Whereas the Directive deals with technical specifications on health and environmental grounds for certain fuels, the Member State concerned was not prevented from laying down quality requirements that serve to ensure the safety of such a fuel.[86] There is hence a need to carefully analyse what is actually regulated by a legal act and what is the purpose of that regulation.

Legal acts that harmonise requirements on products, for example qualities that affect their impact on health or the environment, often contain a so-called market clause. Such a clause typically makes explicit that the placing on the market and use of products that comply with the relevant provisions of the legal act in question may not be restricted with reference to the concerns addressed by the act. This can assist in construing the extent of the harmonising effect affected by the legal act,

[80] Case C-473/98 *Toolex Alpha* ECLI:EU:C:2000:379, paras 29–32.

[81] Case C-127/97 *Burstein* ECLI:EU:C:1998:456, para 24.

[82] Council Directive 93/42/EEC concerning medical devices [1993] OJ L 169/1.

[83] Case C-288/08 *Nordiska Dental* ECLI:EU:C:2009:718, para 33.

[84] L Krämer, 'Comment on case C-288/08 "Kemikalieinspektionen v. Nordiska Dental AB" Judgment of the Court of 19 November 2009' (2010) 7 *Journal for European Environmental & Planning Law* 124–8, 127.

[85] Directive 98/70/EC of the European Parliament and of the Council relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC [1998] OJ L 350/58.

[86] Case C-251/14 *Balázs* ECLI:EU:C:2015:687, paras 38–40.

but the level of clarity of such clauses varies. An example of a market clause is that found in Directive 2006/66/EC on batteries and accumulators and waste batteries and accumulators, according to which

> Member States shall not, on the grounds dealt with in this Directive, impede, prohibit, or restrict the placing on the market in their territory of batteries and accumulators that meet the requirements of this Directive.[87]

Although the phrase 'the grounds dealt with in this Directive' may give rise to differing interpretations, this must still be considered a fairly clear definition of what is harmonised by the Directive. It does not affect the right of Member States to restrict the placing on the market of batteries on grounds not dealt with in the Directive, nor does it preclude restrictions of the use of batteries not related to their placing on the market. Directive 2006/66/EC is also interesting because it is based on two legal bases, ones corresponding to the current Articles 114 and 192 TFEU. The preamble also specifies that it is the market clause and two other articles which are based on Article 114, thereby entailing complete harmonisation, whereas the rest of the act has Article 192 as its legal basis.

A less clear market clause is found in the REACH regulation. According to its Article 128,

> Member States shall not prohibit, restrict or impede the manufacturing, import, placing on the market or use of a substance, on its own, in a preparation or in an article, falling within the scope of this Regulation, which complies with this Regulation and, where appropriate, with Community acts adopted in implementation of this Regulation.

There is also a second paragraph according to which:

> Nothing in this Regulation shall prevent Member States from maintaining or laying down national rules to protect workers, human health and the environment applying in cases where this Regulation does not harmonise the requirements on manufacture, placing on the market or use.

Here there is no reference to the grounds dealt with in the Regulation. Instead the harmonising effect seems to apply to all manufacturing, import, placing on the market, and use of substances which 'fall within the scope' of the Regulation, provided that these activities comply with REACH. There is, however, an explicit exemption for 'national rules to protect workers, human health and the environment', but this only applies in cases where the Regulation does not harmonise the requirements on manufacture, placing on the market, or use. That makes it a description of what would have applied anyway, had there not been any market clause, since a legal act based on Article 114 TFEU is harmonising but does not harmonise requirements which it does not harmonise. In the absence of the second paragraph the market clause of REACH could have given the impression that REACH, by

[87] Directive 2006/66/EC of the European Parliament and of the Council on batteries and accumulators and waste batteries and accumulators and repealing Directive 91/157/EEC [2006] OJ L 266/1, Art 6.

harmonising everything within its 'scope', in fact harmonises issues not explicitly regulated by it. As will be further discussed in Chapter 13 on chemicals, defining the harmonising effect of REACH—a legal act of monumental proportions, subjecting different categories of chemical substances to different levels or regulation—is no easy task.

The room for action by individual Member States is also affected by the existence of various exemptions and safeguard clauses in harmonising EU acts. Market-related acts often give the Member States an explicit right to take provisional measures to deal with unforeseen risks—for example by restricting or prohibiting the use and/or sale of a product on their territories—while awaiting a decision by the Commission on how the issue should be handled at EU level.[88] Article 114 TFEU even requires that harmonisation measures based on that article include 'in appropriate cases' a safeguard clause authorising the Member States to take, for one or more of the non-economic reasons referred to in Article 36 TFEU, provisional measures subject to an EU control procedure.

There are also examples of environmental acts, that is, those based on what is now Article 192 TFEU, which allow for Member States to go below the generally prescribed level of protection under certain circumstances.[89] Another kind of clause is that which holds that the legal act in question shall not prevent the Member States from taking more stringent protective measures. Such statements are most common in the preambles of environmental acts, and then serve as a reminder of what follows from Article 193 TFEU. One example, where the statement is not in the preamble, is that found in Article 14 of the Birds Directive according to which 'Member States may introduce stricter protective measures than those provided for under this Directive'.[90] However, this does not mean that any Member State is free to take protective measures in respect to any kind of bird. In *van den Burg* a Member State was not allowed to prohibit the importation and marketing of a bird which did not naturally occur on its territory and which was neither migratory nor endangered when such bird could be hunted lawfully in accordance with both the legislation of another Member State and with the Birds Directive.[91] There are also examples of individual Member States being granted exemptions or extended deadlines for complying with EU legal acts.[92]

There appears also to exist a possibility to make exceptions from EU law in order to protect a general interest which is superior to the interest which an EU act aims

[88] Directive 2001/18/EC of the European Parliament and of the Council on the deliberate release into the environment of genetically modified organisms and repealing Council Directive 90/220/EEC [2001] OJ L 106/1.

[89] See, eg, Council Directive 98/83/EC on the quality of water intended for human consumption [1998] OJ L 330/32, Art 9.

[90] Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds [2010] OJ L 20/7. The first version of the Birds Directive was decided before there was a legal basis for environmental protection, hence the need for including such a clause in the operative part of the Directive.

[91] Case C-169/89 *Gourmetterie Van den Burg* ECLI:EU:C:1990:227.

[92] See, eg, European Parliament and Council Directive 94/62/EC on packaging and packaging waste [1994] OJ L365/10, Art 6 paras 7 and 11.

to protect. In *Leybucht* the Court of Justice accepted the carrying out of dyke works and the strengthening of coastal structures, although that reduced the extent of a special protection area and could not be justified under the provisions of the Birds Directive. The danger of flooding and the protection of the coast were found to constitute 'sufficiently serious reasons' as long as the measures were confined to a strict minimum and involved only the smallest possible reduction of the special protection area.[93] The needs of fishing vessels could not, as economic interests, be taken into account as such, but since the fishing-related part of the project had at the same time specific positive consequences for the habitat of birds, a desire to ensure the survival of a fishing port could still be taken into account because of 'offsetting ecological benefits'.[94]

The existence of a general principle of superior interests that can justify derogations from EU law when such derogations are not mandated by the legal act in question is not evident. Advocate General Kokott has, however, suggested that a similar reasoning can be applied outside the field of habitat and species protection.[95] It does seem quite reasonable, not to say imperative, that there are circumstances under which the Member States are justified to derogate from EU law without explicit mandate in order to protect against serious threats to human life and health and public security. The problem is more to define which circumstances and values are grave enough. It should in any event be clear that such circumstances would have to be exceptional, the values protected truly important, and the measures taken cause as little harm to the objectives pursued by the EU act in question as possible.

4.6 Choice of Legal Basis

As a consequence of the principle of conferred competence, every legal act adopted by the EU institutions must be based on a legal basis in the Treaties. The legal basis shows that the Union is entitled to legislate within the area and sets out the applicable procedure(s) for doing so. As discussed previously in this chapter, the choice between legal bases, such as Articles 192(1), 114(1), and 43(2) TFEU, for the adoption of a legal act can have significant implications for the division of competence between the Union and the Member States, as well as between the EU institutions involved in the legislative process. It also partly defines the room for more protective measures at Member State level. If an activity is deemed to fall within one of the areas in which the EU enjoys exclusive competence, such as the conservation of marine biological resources under the CFP, the Member States can only influence the regulation of that activity through the EU institutions.

[93] Case C-57/89 *Commission v Germany* ECLI:EU:C:1991:89 ('Leybucht'), paras 21–23.
[94] Ibid (n 93), paras 24–26.
[95] See the reference to 'absolutely overriding reasons in the public interest' in her Opinion in Joined Cases C-165/09 to C-167/09 *Stichting Natuur en Milieu and Others* ECLI:EU:C:2010:775, para 115.

Although the differences between legal bases have become smaller, for example through the strengthening of the powers of the EP in areas where it was previously only to be consulted, some important implications of the choice of legal basis also remain outside the area of exclusive EU competence. There are, for example, still areas, including land use and provisions primarily of a fiscal nature, where the EP is only to be consulted by the Council during the legislative process. The most significant difference, however, is perhaps the general right of Member States to take more stringent protective measures when an EU legal act has been based on Article 192(1) TFEU, which only has a very limited analogue in Article 114 TFEU, and none at all in legal bases such as Article 43 TFEU on the CAP.

The Court of Justice has established two main requirements that apply to the choice of legal basis. One is that the choice must be based on objective factors amenable to judicial review.[96] These factors include in particular the aim and content of the measure.[97] The other requirement is that the legal basis shall be used that is required by the 'main or predominant' purpose of the legal act.[98] In this regard reference is often made to the 'point of gravity' of the legal act. If, exceptionally, it is established that an act simultaneously pursues a number of objectives, 'indissociably linked, without one being secondary and indirect in relation to the other', an act may be founded on two or more corresponding legal bases.[99] More on this below.

The Court of Justice has repeatedly held that the legal basis which has been used for the adoption of other EU measures which display similar characteristics is irrelevant, as the legal basis for a measure must be determined having regard to the purpose and content of each specific measure.[100] A close examination of each new measure is required. Some guidance may, however, be had from the fact that where the Treaty contains a more specific provision that is capable of constituting the legal basis for a specific measure, that provision is to be used.[101] Whether the Court's rather extensive case law on the choice of legal basis provides much clarity is, in itself, far from clear.

If the aims of an EU legal act cover more than one policy area it must be considered whether the measure relates principally to a particular field of action, having only incidental effects on other policies, or whether both aspects are equally essential. If the latter is the case the measure shall, in principle, be adopted on the basis of the two or more provisions from which the EU law-maker's competence derives. Such dual basis is not possible where the procedure laid down for each legal basis are incompatible with each other.[102] However, the Court of Justice has accepted the use of legal bases as long as the Council acts by a qualified majority under both procedures even though the EP has different levels of influence according to the

[96] Case 45/86 *Commission v Council* EU:C:1987:163, para 11 and subsequent case law.
[97] Case C-300/89 *Commission v Council* ECLI:EU:C:1991:244, para 10.
[98] See, eg, Case C-336/00 *Huber* (n 7), para 31.
[99] Ibid, para 31.
[100] See, eg, Case C-656/11 *United Kingdom v Council* EU:C:2014:97, para 48.
[101] Case C-155/07 *Parliament v Council* ECLI:EU:C:2008:605, para 34.
[102] Joined Cases C-164/97 and C-165/97 *Parliament v Council* (n 5), para 14 and the case law cited there.

procedures. As long as the procedure is applied which grants the EP the more extensive influence, its rights are not encroached upon.

The Court of Justice has found that dual legal bases should be used, inter alia, for the approval of the Rotterdam Convention and the adoption of a regulation implementing that Convention.[103]

4.7 The EU's External Competence

The EU has legal personality (Art 47 TEU). It thus has the capacity to enter into agreements with States and international organisations, provided that they accept it as a contracting party. This possibility has been much used by the EU, which is party to more than 1,000 international agreements.[104] A significant number of these concern, directly or indirectly, environmental protection. Indeed, 'promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change' is one of the objectives to be pursued by the EU's policy on the environment (Art 191 (1) TFEU), and participating in the drafting and subsequent development of international treaties are essential parts of this endeavour. Most multilateral environmental agreements (MEAs) are open to participation by 'regional economic integration organisations' such as the EU.

However, the EU's ability to enter into international agreements is not only a matter of its relation to third (ie non-EU) countries, but to a large extent also about internal competences. Historically, the external competence of what is now the EU has largely been developed in case law. The Court of Justice has granted the Union extensive competence to enter into international agreements and held that authority to enter into international commitments may not only follow from express attributions in the Treaties but also flow implicitly from their provisions.[105] Wherever the EU institutions have been granted powers in the internal law of the EU for attaining a specific objective, the Union has authority to enter into international commitments necessary for the attainment of that objective.[106]

The Treaty of Lisbon has to some extent simplified and codified the legal situation.[107] Article 216 TFEU now makes clear that

> [t]he Union may conclude an agreement with one or more third countries or international organisations where the Treaties so provide or where the conclusion of an agreement is

[103] Case C-94/03 *Commission v Council* (n 68) and C-178/03 *Commission v Parliament and Council* (n 68), respectively. Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam, 10 September 1998) 2244 UNTS 337.

[104] F G Jacobs, 'Direct Effect and Interpretation of International Agreements in the Recent Case Law of the European Court of Justice' in A Dashwood and M Maresceau (eds) *Law and Practice of EU External Relations: Salient Features of a Changing Landscape* (Cambridge University Press, 2008) 14.

[105] See, eg, Joined cases 3, 4, and 6/76 *Cornelis Kramer* ECLI:EU:C:1976:114, para 19.

[106] Opinion 1/76 of 26 April 1977 ECLI:EU:C:1977:63, para 3.

[107] See further M Cremona 'Defining Competence in EU External Relations: Lessons from the Constitutional Treaty' in A Dashwood and M Maresceau (eds) *Law and Practice of EU External Relations: Salient Features of a Changing Landscape* (Cambridge University Press, 2008) 34 et seq.

necessary in order to achieve, within the framework of the Union's policies, one of the objectives referred to in the Treaties, or is provided for in a legally binding Union act or is likely to affect common rules or alter their scope.

It is hence an extensive competence, the outer limits of which are not always easy to discern. In some policy areas, including environmental policy, there has for some time existed an explicit competence for the Union to enter into international agreements. According to what is now Article 191(4) TFEU, the Union and the Member States shall, within their respective spheres of competence, cooperate with third countries and with competent international organisations. The arrangements for Union cooperation may be the subject of agreements between it and the third parties concerned.

The internal EU procedure for negotiating and entering into international agreements is set out in Article 218 TFEU.[108] Except for agreements relating exclusively or principally to the common foreign and security policy, it is the Council that authorises the opening of negotiations, adopts negotiating directives, authorises the signing of agreements, and concludes them. It may address directives to the negotiator and designate a special committee in consultation with which the negotiations must be conducted.[109] In practice the Member States, or some Member States, often exercise a considerable influence on the negotiations.[110] Once the agreement has been negotiated the Council adopts, on a proposal by the negotiator, a decision authorising the signing of the agreement. On a proposal by the negotiator, it concludes the agreement. In many cases the consent of the EP is required before the Council may conclude an agreement. That is the case, inter alia, if the agreement establishes a specific institutional framework by organising cooperation procedures, or if it covers fields to which apply either the ordinary legislative procedure or the special legislative procedure where consent by the EP is required. Throughout the procedure the Council acts by a qualified majority unless the agreement covers a field for which unanimity is required for the adoption of a Union act.

When agreements are negotiated and concluded in the area covered by the CCP, certain special provisions apply.

A Member State, the EP, the Council, or the Commission may obtain the opinion of the Court of Justice as to whether an agreement envisaged is compatible with the Treaties (Arts 207 and 218).

4.7.1 Mixed agreements and exclusive competence

A related and equally important question as that of the ability of the Union to enter into international agreements is that of the ability of individual Member States to

[108] The term 'agreement' covers any undertaking entered into by entities subject to international law which has binding force. Case C-327/91 *France v Commission* EU:C:1994:305, para 27.

[109] On the division of powers between the Council and the Commission in this context, see Case C-425/13 *Commission v Council* ECLI:EU:C:2015:483.

[110] L Krämer *EU Environmental Law* (7th edn, Sweet & Maxwell, 2012) 84.

enter into such agreements in the same areas as the Union. The relationship between the competence of the Union and that of the Member States to enter into international agreements differs between policy areas. As previously noted, the CCP is subject to the Union's exclusive competence. Among other things this means that the Member States are precluded from negotiating and entering into agreements with third countries in this area. The same applies with respect to the conservation of marine biological resources under the CFP (Art 3 TFEU).

The rights and obligations arising from agreements concluded by a State before it became a Member State of the EU with one or more third countries are not, in principle, affected by the EU Treaties. However, to the extent that such agreements are incompatible with the Treaties, the Member State concerned shall take all appropriate steps to eliminate the incompatibilities (Art 351).

In other policy areas, including environment and energy, the Union and the Member States have shared competence (Art 4 TFEU). With respect to environmental policy, it is made clear in Article 191(4) TFEU that the competence of the Union to conclude agreements with third parties shall be without prejudice to Member States' competence to negotiate in international bodies and to conclude international agreements. In principle, the Union and the Member States can thus conduct parallel negotiations and independently enter into the same international agreements. Agreements to which the EU and Member States are or may become parties are called 'mixed agreements'. Such agreements are as legally and politically complex as they are practically significant and have been subject to much analysis.[111]

However, according to the so-called 'ERTA doctrine',[112] the right of the Member States to become parties to international agreements only applies as long as the EU has not internally regulated the subject matter covered by the agreement. Where common rules have been adopted, the Member States no longer have the right, acting individually or even collectively, to undertake obligations with non-member countries, which affect those rules. When that is the case, the EU has exclusive competence to conclude international agreements.[113] The Court of Justice has subsequently emphasised that the Member States only lose their right to assume obligations with non-member countries as and when common rules, which could be affected by those obligations, come into being.[114]

In order to somewhat clarify when common rules may be affected or distorted by international commitments, the Court of Justice has established that that is the case where the international commitments fall within the scope of the common rules, or in any event within an area which is already largely covered by such rules. In the latter case, Member States may not enter into international commitments outside the framework of the EU institutions, even if there is no contradiction between those commitments and the common rules.[115] When the EU has conferred on its

[111] See, eg, C Hillion and P Koutrakos (eds) *Mixed Agreements Revisited: The EU and Its Member States in the World* (Hart Publishing, 2010).

[112] Case 22/70 *Commission v Council* EU:C:1971:32 ('ERTA'). [113] Ibid, para 17.

[114] Opinion 1/94 of 15 November 1994 ECLI:EU:C:1994:384, para 77.

[115] Opinion 2/91 of 19 March 1993 ECLI:EU:C:1993:106, paras 25 and 26.

institutions powers to negotiate with non-member countries, it acquires an exclusive external competence in the spheres covered by those acts.[116] The same applies where the EU has achieved complete harmonisation in a given area, because the common rules could be affected if the Member States retained freedom to negotiate with non-member countries.[117] The external competence of the Member States is thus dependent on the extent to which the Union has regulated an issue at the internal level.

It is now explicitly stated in Article 3 TFEU that the Union has exclusive competence to conclude an international agreement when its conclusion is provided for in a legislative act of the Union or is necessary to enable the Union to exercise its internal competence, or in so far as its conclusion may affect common rules or alter their scope. This article is essentially an attempt to codify the case law in this area.[118] However, the Court of Justice has previously found that if an international agreement covers an area which in EU law is regulated only by minimum requirements, such as measures based on Article 192 TFEU, those EU rules are not affected by the agreement as long as the agreement does not prevent its parties from taking more stringent measures. If, namely, in such an area the EU adopts rules which are less stringent than those of the international agreement, the Member States remain free to adopt more stringent measures. If, on the other hand, the Union adopts more stringent measures than those provided for by the agreement, there is nothing to prevent the full application of EU law by the Member States.[119]

As previously noted, most agreements relating to environmental protection are so-called mixed agreements, that is, both the Union and Member States may be parties. This can give rise to a certain confusion, for example regarding the division of competence and responsibility between the Union and the Member States. Not least for the other contracting parties to such an agreement, this can be rather opaque. As a remedy the EU often issues a declaration on the division of competence between the Union and the Member States. However, internal division within the Union and the dynamic nature of EU law tend to make these declarations rather vague and less than fully clarifying.

Even though the Member States can act in their own right in relation to mixed agreements, this right is in fact significantly curtailed by a far-reaching requirement for loyal cooperation. The Court of Justice has, inter alia, found that duty to have been violated when a Member State submitted on its own behalf a proposal to include a substance (PFOS) in an Annex to a MEA despite there existing a 'common strategy' in the Council not to propose at that time the listing of PFOS.[120] The Court also pointed out that where an agreement falls partly within the competence of the EU and partly within that of its Member States, it is essential to ensure close cooperation between the Member States and the EU institutions, both in the process of negotiation and conclusion and in the fulfilment of the commitments entered into.[121] Furthermore the Court has found that the obligation of

[116] Opinion 1/94 (n 114), para 95. [117] Ibid, para 96.
[118] See further Cremona 'Defining Competence in EU External Relations …' (n 107) 61.
[119] Opinion 2/91 (n 115), para 18.
[120] Case C-246/07 *Commission v Sweden* ECLI:EU:C:2010:203. [121] Ibid, para 73.

close cooperation requires a Member State to inform and consult the competent EU institutions before instituting dispute settlement proceedings within the framework of a mixed agreement.[122]

4.7.2 The status of international agreements in EU law

Agreements concluded by the Union are binding upon the institutions of the Union and on its Member States (Art 216 TFEU). They form an integral part of the EU legal order and even have primacy over secondary EU legislation.[123] Mixed agreements have the same status in the EU legal order as purely EU agreements in so far as the provisions fall within the scope of EU competence.[124]

In ensuring compliance with commitments arising from agreements concluded by the EU, the Member States fulfil an obligation in relation to the EU, which has assumed responsibility for the due performance of the agreement.[125] Failure to ensure such compliance is accordingly a violation of their obligations under EU law.

The Court of Justice can examine the validity of EU legislation in the light of an international treaty provided that the Union is bound by the treaty. However, it cannot be done if the nature and the broad logic of the treaty precludes it, or if the treaty's provisions do not appear, as regards their content, to be unconditional and sufficiently precise.[126]

Treaties to which the Member States but not the Union itself are parties can influence the interpretation of secondary EU law. In *Intertanko* the validity of a directive could not be examined in the light of MARPOL 73/78 since the EU was not party to that agreement, even though the directive had the objective of incorporating certain parts of MARPOL 73/78 into EU law. But the Court did find that the customary principle of good faith, which forms part of general international law, and the requirement for loyal cooperation in what is now Article 4 TEU required it to take account of MARPOL 73/78 when interpreting the EU directive.[127] However, this does not apply with respect to international agreements to which only some Member States are contracting parties, since that would amount to extending the scope of that obligation to those Member States which are not parties to the agreement. That would violate the general international law principle according to which treaties must neither harm nor benefit third countries.[128]

When the EU becomes party to international agreements it often transposes their substantive provisions to secondary EU law, often regulations. That makes it clear that the provisions are binding and subject to the Commission's oversight as

[122] Case C-459/03 *Commission v Ireland* ECLI:EU:C:2006:345, para 179.
[123] Case C-308/06 *Intertanko and Others* ECLI:EU:C:2008:312, para 42.
[124] Case C-239/03 *Commission v France* ECLI:EU:C:2004:598, para 25.
[125] Case 12/86 *Demirel* ECLI:EU:C:1987:400, para 11.
[126] Case C-308/06 *Intertanko* (n 123), paras 43–45. [127] Ibid, para 52.
[128] Case C-537/11 *Manzi and Compagnia Naviera Orchestra* ECLI:EU:C:2014:19, para 47.

to their correct application. With the exception of WTO agreements, the Court of Justice has also tended to grant international agreements direct effect. Agreements entered into by the EU with non-member countries are, in principle, directly applicable to the extent that they contain a clear, precise, and unconditional obligation which is not subject, in its implementation or effects, to the adoption of any subsequent measure.[129] These criteria have, inter alia, been found to be satisfied by a provision in the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-based Sources, although it refers to 'the relevant decisions or recommendations of the meetings of the Contracting Parties', which the competent national authorities must take into account.[130] In *Lesoochranárske zoskupenie* the Court found that Article 9(3) of the Aarhus Convention,[131] on access to administrative or judicial procedures to challenge certain acts and omissions, does not contain any clear and precise obligation capable of directly regulating the legal position of individuals, the reason being that since 'only members of the public who meet the criteria, if any, laid down by national law are entitled to exercise the rights' provided for in that article, that provision is subject, in its implementation or effects, to the adoption of a subsequent measure.[132] A further important exception is UNCLOS, 'the nature and the broad logic' of which prevent its use for examining the validity of EU measures according to the Court of Justice.[133]

Finally, it should be noted that, in its relations with the wider world, the Union shall, inter alia, contribute to the sustainable development of the Earth and to the strict observance and the development of international law (Art 3 TEU). This means that when the EU adopts an act, it is bound to observe international law in its entirety, including customary international law, which is binding upon the institutions of the EU.[134]

Further Reading

A Dashwood and M Maresceau (eds) *Law and Practice of EU External Relations: Salient Features of a Changing Landscape* (Cambridge University Press, 2008)

C Hillion and P Koutrakos (eds) *Mixed Agreements Revisited: The EU and its Member States in the World* (Hart Publishing, 2010)

M Lee *EU Environmental Law, Governance and Decision-Making* (Hart Publishing, 2014)

N de Sadeleer *EU Environmental Law and the Internal Market* (Oxford University Press, 2014) Chap 3

[129] Case 12/86 *Demirel* (n 125), para 14.

[130] Case C-213/03 *Pêcheurs de l'étang de Berre* ECLI:EU:C:2004:464, para 46.

[131] Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention) (Aarhus, 25 June 1998) 2161 UNTS 447.

[132] Case C-240/09 *Lesoochranárske zoskupenie* ECLI:EU:C:2011:125, para 45.

[133] Case C-308/06 *Intertanko* (n 123), para 65.

[134] Case C-366/10 *Air Transport Association of America* ECLI:EU:C:2011:864, para 101.

5

Monitoring the Application of Union Environmental Law and Sanctions

5.1 Member States' Obligations

According to Article 192(4) TFEU, Member States shall finance and implement environmental policy. When an environmental act is adopted by the Union institutions, or a principle is developed through Court of Justice practice, it is up to the Member States to ensure that it is applied in their respective national legal systems. Member States' action is thus crucial for the practical impact of EU environmental law. To increase the impact of EU law and individuals' possibilities to invoke it, and also to support Member States and monitor their compliance with EU law, several mechanisms have been established; some specifically in the Treaties, others through the practice of the Court of Justice.

The EU Treaty imposes a general obligation of sincere cooperation by Member States when implementing EU law. Article 4(3) TEU states that 'The Member States shall take any appropriate measure, general or particular, to ensure fulfilment of the obligations arising out of the Treaties or resulting from the acts of the institutions of the Union.' Member States shall also, under the same article, 'facilitate the achievement of the Union's tasks and refrain from any measure which could jeopardise the attainment of the Union's objectives'. It is a far-reaching obligation that may take many forms.[1]

The most common type of legal act relating to the environment, as previously mentioned, is the directive. Directives often contain both formal and substantive requirements on Member States. Among the formal requirements are the duty to implement the directive correctly and within a specified time, to notify the Commission of the implementation, and to prepare and submit reports of the transposition of the directive into national law. Member States are often required to send such reports to the Commission. The requirements on how to transpose a directive into the national legal order are discussed in Chapter 1. In summary, to the extent that a directive confers rights on individuals, its provisions shall be transposed through binding rules that may be invoked before national courts and authorities.

[1] On the principle of sincere cooperation, see further section 2.4.10.

Yet it is not sufficient that a directive's provisions are properly transposed into national law. National authorities must also ensure that the rules actually have an impact. The Court of Justice has held that when a directive states that an activity requires a permit, Member States are to ensure that their permit system is actually applied and complied with, by for example implementing appropriate controls and by identifying, stopping, and penalising activities without permit. This requires, however, that the result which the directive obliges Member States to achieve is clearly worded.[2]

The requirement that EU law shall have a practical impact at national level applies also to other legal instruments, including the Treaties. Member States' competent authorities must use 'all the means at their disposal' to achieve the purposes of the Treaties.[3] Practical and political problems in implementing EU law are usually not accepted as a valid reason for not complying with the Treaties.[4] Nor have resistance from individuals, for example from the local population where a particular action should be taken, or problems with criminal activities that undermine the Member State's implementation measures, been accepted as excuses for a Member State's failure to perform an obligation under EU law.[5] That such a failure lacks negative consequences or that there have been no complaints from individuals regarding, for example, incorrect application of a directive does not affect the conclusion as to whether a breach of EU law exists. Failure to fulfil obligations imposed by an EU law constitutes an infringement.[6]

5.2 Penalties for Individuals

As regards penalties for individuals in breach of rules originating in EU law, Member States have a general obligation to guarantee the application and effectiveness of EU law. Unless specifically provided for in an EU legal act, Member States may choose the appropriate penalties but must ensure that infringements are penalised under conditions equivalent to the substantive and procedural rules of national law applicable to offences of a similar nature and seriousness.[7] The standard is thus relative and depends on how similar actions are considered by the national legislature. However, it is generally required that penalties should be 'effective, proportionate, and dissuasive'.[8]

Many EU legal acts contain such generally formulated requirements on sanctions. For example, the Water Framework Directive prescribes the following:

[2] Case C-494/01 *Commission v Ireland* ECLI:EU:C:2005:250, paras 116–17.
[3] Case C-165/91 *van Munster* ECLI:EU:C:1994:359, para 32.
[4] Case 265/95 *Commission v France* ECLI:EU:C:1997:595, para 56.
[5] Case C-297/08 *Commission v Italy* ECLI:EU:C:2010:115, paras 83–84.
[6] Case C-392/96 *Commission v Ireland* ECLI:EU:C:1999:431, paras 60–61.
[7] Case C-354/99 *Commission v Ireland* ECLI:EU:C:2001:550, para 46 and the cases referred to therein.
[8] Ibid.

Member States shall determine penalties applicable to breaches of the national provisions adopted pursuant to this Directive. The penalties thus provided for shall be effective, proportionate and dissuasive.[9]

More specific penal law provisions can be found in Directive 2005/35/EC on ship-source pollution[10] and in Directive 2008/99/EC on the protection of the environment through criminal law.[11] The latter is aimed specifically at ensuring that certain acts are considered criminal offences throughout the EU. It obliges Member States to ensure that certain listed conduct constitutes a criminal offence when unlawful and committed intentionally or with serious negligence. 'Unlawful' here refers to activities infringing any of a large number of listed EU legislative acts or infringing any law, administrative regulation of a Member State, or decision taken by a competent authority of a Member State that gives effect to such EU legislation.[12]

The directive lists activities that shall be punishable when they violate the stated acts or implementing arrangements and are committed intentionally or with serious negligence. Such activities include

the discharge, emission or introduction of a quantity of materials or ionising radiation into air, soil or water, which causes or is likely to cause death or serious injury to any person or substantial damage to the quality of air, the quality of soil or the quality of water, or to animals or plants

as well as 'any conduct which causes the significant deterioration of a habitat within a protected site'.[13]

Neither of these two directives specifies what penalties should apply to a particular conduct. This is left to Member States to decide.

The EU's ability to impose specific criminal sanctions for breaches of EU law has been disputed. The dispute mainly concerned whether the EC possessed this competence or whether such decisions would be subject to the more intergovernmental decision-making process in what was then the EU's third pillar. In two cases with environmental criminal elements concerning the validity of framework decisions,[14] the Court of Justice found that although in principle criminal legislation does not fall within the Community's competence, the Community legislature was not prevented,

when the application of effective, proportionate and dissuasive criminal penalties by the competent national authorities is an essential measure for combating serious environmental offences, from taking measures which relate to the criminal law of the Member States which

[9] Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for Community action in the field of water policy [2000] OJ L 327/1, Art 23.

[10] Directive 2005/35/EC of the European Parliament and of the Council on ship-source pollution and on the introduction of penalties for infringements [2005] OJ L 255/11.

[11] Directive 2008/99/EC of the European Parliament and of the Council on the protection of the environment through criminal law [2008] OJ L 328/28.

[12] Ibid, Art 2a. [13] Ibid, Art 3(a) and (h).

[14] Council Framework Decision 2003/80/JHA on the protection of the environment through criminal law [2003] OJ L 29/55.

it considers necessary in order to ensure that the rules which it lays down on environmental protection are fully effective.[15]

By contrast, determination of the type and level of the criminal penalties to be applied did not fall within the Community's competence.[16]

After the amendments introduced by the Treaty of Lisbon, it follows now from Article 83(2) TFEU that minimum rules on definition of criminal offences and sanctions may sometimes be included in a directive. Such decisions are, however, subject to a special legislative procedure designed to protect fundamental aspects of the Member States' criminal justice systems.

There are also examples of specific sanctions that are not of a criminal nature under environmental legislation.[17] One is found in Directive 2003/87 on emissions trading. This provides for the publication of the names of operators who are in breach of the requirement to surrender sufficient emission allowances; and that any operator who does not surrender sufficient allowances to cover its emissions during the preceding year shall be held liable for the payment of an excess emissions penalty.[18]

5.3 Implementation of EU Law

Environmental legislation is a significant part of EU legislation and its implementation is fraught with difficulties. EU environmental law is applicable to a variety of natural conditions, under very varied national and regional administrative arrangements.[19] There are also significant differences between Member States as regards their views about the function and importance of environmental legislation. The same applies to the resources allocated to implementation and supervision of compliance.[20] There are obviously significant problems and shortcomings. Among the specific problems identified by the Commission is that deadlines and completeness of implementing measures are not sufficiently observed in adopting national and regional legislation. The Commission also points out that administrative capacity is insufficient, and national and regional strategies and methods for enforcement are weak. Examples of special challenges are illegal landfills in some Member States and the fact that many European cities' air quality does not yet meet EU standards.[21]

[15] Case C-176/03 *Commission v Council* ECLI:EU:C:2005:542, para 48 and Case C-440/05 *Commission v Council* ECLI:EU:C:2007:625, para 66.

[16] Case C-440/05 *Commission v Council* (n 15), para 70.

[17] R Meeus 'Fill in the Gaps: EU Sanctioning Requirements to Improve Member State Enforcement of EU Environmental Law' (2010) 7 *Journal for European Environmental & Planning Law* 135–62, 149.

[18] Directive 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community [2003] OJ L 275/32, Art 16(2)–(3).

[19] Communication from the Commission on implementing European Community Environmental Law (18 November 2008) COM (2008) 773 final.

[20] L Krämer *EU Environmental Law* (7th edn, Sweet & Maxwell, 2012) 398. See also Communication from the Commission on the review of Recommendation 2001/331/EC providing for minimum criteria for environmental inspections in the Member States (14 November 2007) COM (2007) 707 final.

[21] COM (2008) 773 final (n 19) 3–4. This Communication was supplemented in 2012 by Communication from the Commission—Improving the delivery of benefits from EU environment measures: building confidence through better knowledge and responsiveness (7 March 2012)

National measures to implement EU environmental directives should be reported to the Commission, which under Article 17 TEU is to monitor the application of Union law. To make these national reports uniform, detailed, and sufficiently comprehensive, Directive 91/692/EEC standardising and rationalising reports on the implementation of certain environmental directives was adopted in 1991.[22] According to its Article 2, Member States shall every three years forward a report to the Commission on the implementation of directives in different environmental areas. These national reports are considered not to have led to any significant improvement in the implementation of environmental directives.[23] The Commission usually publishes an annual report on its supervisory function.[24]

Since 1992, an informal network of representatives of the Member States' responsible bodies for the protection of the environment and the Commission, IMPEL, has promoted more efficient implementation of EU environmental legislation. Since 2008, IMPEL has been an international non-profit association established under Belgian law. In addition to representatives of Member States' environmental authorities, relevant authorities from the former Yugoslav Republic of Macedonia, Turkey, Iceland, Kosovo, Albania, Switzerland, and Norway are represented. IMPEL's purpose is to contribute to the protection of the environment by promoting the efficient implementation and application of EU environmental law. This should be achieved, inter alia, by promoting information and experience exchange between environmental authorities, promoting networking among those authorities, and implementing joint projects relating to environmental law enforcement.

IMPEL has a General Assembly, which adopts overall policy decisions, and a board. The network is assisted by a secretariat located in Brussels. The work is mainly in the form of projects and organised in 'thematic areas'. In 2015, IMPEL worked within five such areas: industry regulation, waste and transfrontier shipment of waste (TFS), water and land, nature protection, and cross-cutting tools and approaches.[25]

5.4 The Infringement Procedure

When a Member State fails to fulfil obligations under the Treaties, both the Commission under Article 258 TFEU and the other Member States under Article 259 TFEU may formally bring actions against that State before the Court of Justice. If a Member State wants to sue another Member State, it must first bring the matter

COM(2012) 95 final. The basic environmental problems and implementation shortcomings have been the same in the past fifteen years despite extensive legislation.

[22] [1991] OJ L 377/48. [23] Krämer *EU Environmental Law* (n 20) 398.

[24] See, eg, Report from the Commission—Monitoring the application of Union law 2014 Annual Report (9 July 2015) COM(2015) 329 final.

[25] For further information on IMPEL and its work, visit <http://www.impel.eu> (visited 18 December 2015).

to the Commission, which shall deliver a reasoned opinion after the States concerned have submitted their cases and their observations on the other party's case. In practice, Member States rarely avail themselves of this opportunity. To the extent they have an interest in the matter, they try instead to have the Commission conduct the process. It is, as we have seen, the Commission's task to monitor the application of Union law.

Individuals can only under very specific conditions bring an action before the Court. Instead, they may plead before a national court and hope that court finds it necessary to seek a ruling from the Court of Justice. This will be discussed in more detail in the section on individuals' right to bring an action and on preliminary rulings of the Court. Individuals can also submit their complaint to the Commission, which in turn may bring proceedings against the Member State.

5.4.1 Procedure before the Commission

The Commission may become aware of violations of the EU regulatory framework in several ways. The simplest, although it mainly captures formal shortcomings in implementation, is when it is clear from a Member State's reporting or lack of reporting that a directive is not being implemented properly. Most cases of violation of environmental law that the Commission initiates concern incorrect implementation or other formal errors, rather than breaches due to the actual application of EU law in Member States. This is probably because it is easier for the Commission to check and prove formal shortcomings, not least through the reports, compared to incorrect application in concrete cases.[26] During 2015, the Commission launched forty environment-related infringement proceedings before the Court.[27]

In addition to the formal contact channels, the Commission receives information on Member States' environmental performance through informal channels, where environmental organisations in the Member States play an important role. There are also several federations of European environmental organisations, including EEB,[28] which has more than 140 member organisations from thirty-one countries and offices in Brussels. The Commission also receives numerous complaints from EU citizens every year, of which a significant part concerns the environment.[29] There are virtually no formal requirements for the design of a complaint, but to facilitate the procedure, the Commission has published a special form for this purpose.[30] A concrete and highlighted example of the individual's role in this respect is the *Blackpool* case.[31] An English lady who was dissatisfied

[26] P Wennerås *The Enforcement of EC Environmental Law* (Oxford University Press, 2007) 255.

[27] For statistics concerning infringements of environmental legislation by various Member States, see <http://ec.europa.eu/environment/legal/law/statistics.htm> (visited 5 January 2016). Generally on monitoring of the implementation of EU environmental law, see M Hedemann-Robinson *Enforcement of European Union Environmental Law* (Routledge, 2015).

[28] The European Environmental Bureau. See <http://www.eeb.org> (visited 21 December 2015).

[29] During 2014, there were 508 complaints relating to the environmental policy area: COM(2015) 329 final (n 24) 8.

[30] Krämer *EU Environmental Law* (n 20) 403.

[31] Case C-56/90 *Commission v United Kingdom* ECLI:EU:C:1993:307.

with the quality of bathing water in the Irish Sea at Blackpool sent a postcard to the Commission in 1991, urging it to rescue Britain's beaches. That was enough for the Commission to eventually bring infringement proceedings against the UK before the Court of Justice. The Court found in its 1993 ruling that Britain had failed in its duty to take all necessary measures to ensure that bathing water quality around Blackpool and Southport remained within the limits set by the Bathing Water Directive.[32]

The Commission registers all complaints received. This enables the individual to follow the entire procedure and be informed of all actions taken by the Commission. She or he, however, has no right of appeal if the Commission decides not to investigate further the grounds for the complaint, or if after examination decides not to proceed.[33] In late 2015 the Commission had a total of 3,750 complaints to deal with.[34]

Before initiating an infringement procedure, which may lead to infringement proceedings, the Commission conducts its own investigations and makes informal contact with Member States' representatives to clarify the facts and hopefully solve the problem. If these efforts do not produce results, an infringement procedure may be opened against the Member State under Article 258 TFEU. Importantly, however, the Commission itself decides whether, and if so when, it will initiate infringement proceedings.

The actual infringement procedure begins with a letter of formal notice in which the Commission explains what legal obligation has been breached and urges the defaulting State to submit its comments regarding the alleged infringement within a certain time, usually a few months. If the Member State's response is not satisfactory, or if it is missing completely, the Commission can take the next step and send the Member State concerned a reasoned opinion. It must contain a coherent and detailed statement of the reasons which led the Commission to conclude that the State in question has failed to fulfil an EU law obligation. The reasoned opinion delimits the subject matter of the subsequent proceedings and is in that way decisive for what arguments the Commission may plead before the Court.[35] Here too, the Member State normally has a couple of months to submit its comments.

The Commission is not entitled to carry out inspections relating to the status of the environment in the Member States against their will. However, Member States are required to cooperate in good faith in Commission investigations under Article 258 TFEU, and to provide all the information requested.[36]

[32] Council Directive 76/160/EEC concerning the quality of bathing water [1976] OJ L 31/1. This directive is replaced by Directive 2006/7/EC of the European Parliament and of the Council of 15 February 2006 concerning the management of bathing water quality [2006] OJ L 64/37.

[33] Case T-247/04 *Aseprofar and Others* ECLI:EU:T:2005:327, para 40.

[34] COM(2015) 329 final (n 24) 8.

[35] Case C-358/01 *Commission v Spain* ECLI:EU:C:2003:599, paras 26–29 which also define the relation between the letter of formal notice and the reasoned opinion.

[36] Case C-478/01 *Commission v Luxemburg* ECLI:EU:C:2003:134, para 24.

5.4.2 Infringement cases before the Court

If the defaulting State takes no steps to correct the error, the Commission may at any time after the deadline for a reply to the reasoned opinion bring infringement proceedings before the Court of Justice. The existence of an infringement will be judged against the background of the situation prevailing in the Member State at the time of the expiry of the deadline.[37] Only in a small percentage of cases where the Commission initiates a case concerning a suspected infringement will this lead to infringement proceedings before the Court.[38] In many cases, the dispute can be resolved through discussions between the Commission and the Member State. It is also common that cases that reach the Court are terminated without judgment because the dispute is settled during the process. A case may go all the way to judgment because, inter alia, the Commission and the Member State interpret the legal situation differently and thus disagree on whether an infringement actually exists, or because the Member State's government, for political or constitutional reasons, finds it difficult to change some national legislation or practice.

It is incumbent upon the Commission to prove the alleged breach and provide the Court with the information it needs to determine whether there has in fact been an infringement.[39] If the Commission does manage to present a prima facie case, for example by providing 'sufficient evidence' that certain alleged circumstances actually occurred, the burden of proof will be transferred to the Member State.[40] According to Article 279 TFEU, the Court may prescribe any necessary interim measures while the case is being heard.

Even if the Court finds that there is an infringement, it cannot annul any national legislation that has given rise to the action, or decide what measures are necessary to correct the error. It is up to the Member State to determine how it will comply with the Court decision and align its legislation with EU rules.[41] However, if the court finds that a Member State has failed to fulfil its obligations under the Treaties, that Member State shall, under Article 260 TFEU, take the necessary measures to comply with the judgment. This also follows from the general requirement of sincere cooperation in Article 4(3) TEU.

5.4.3 Sanction

If a Member State does not comply with the Court's judgment within a reasonable time, the Commission may open a new infringement proceeding under Article 260(2) TFEU. However, it may this time specify a lump sum or penalty that it believes, with regard to the circumstances, the Member State concerned shall pay.

[37] See, eg, Case C-494/01 *Commission v Ireland* (n 2), para 29.

[38] Report from the Commission—2014 Annual Report on Monitoring the Application of EU Law (9 July 2015) COM (2015) 329 final, 15–16.

[39] Case C-494/01 *Commission v Ireland* (n 2), para 41.

[40] Case C-335/07 *Commission v Finland* ECLI:EU:C:2009:612, para 47; Wennerås *The Enforcement of EC Environmental Law* (n 26) 258.

[41] Wennerås *The Enforcement of EC Environmental Law* (n 26) 259.

The Commission has published guidelines for the calculation of such financial penalties.[42] According to these, determination of the sanction is based on three criteria: the seriousness of the infringement, its duration, and the need for a deterrent penalty to prevent relapse.[43]

The new procedure is similar to the first one, but after the Treaty of Lisbon both a notification and then a reasoned opinion are no longer required before an infringement action before the Court of Justice can be initiated. It is enough that the Commission gives the State concerned the opportunity to submit its views before proceedings are brought (Art 260 (2) TFEU). If the Court finds that the Member State has not complied with its judgment, it may impose a lump sum or penalty payment (Art 260 (3) TFEU). The Court is not bound by what the Commission claims regarding the nature and extent of the sanction and merely sees the Commission's suggestions as a point of reference.[44] This has been criticised as contrary to the principle of division of competences between the political and legal powers within the EU.[45]

When determining the penalty payment, the Court must consider the duration of the infringement, its degree of seriousness, and the ability of the Member State concerned to pay. In applying those criteria, the Court is required to have regard to the effects on public and private interests of failure to comply and to the urgency with which the Member State concerned must be induced to fulfil its obligations.[46]

The Court has held that where failure to comply with a judgment is likely to harm the environment, the protection of which is one of the EU's policy objectives, such a breach is of a particularly serious nature.[47]

According to the Court, a financial penalty—which concerns the situation in the future—can be particularly suited to induce a Member State to urgently cease an infringement which, in the absence of such a measure, would tend to persist. A penalty payment should thus exercise a degree of pressure needed in order to persuade the defaulting Member State to comply with the previous judgment.

Imposition of a lump sum—which can be considered to relate to what has already happened when the judgment is delivered—is based rather on an assessment of the impact of the Member State's failure to fulfil its obligations on private and public interests. A lump sum is motivated in particular when the breach has persisted for a long time after pronouncement of the judgment in which it was established.[48]

[42] Communication from the Commission—Application of Article 228 of the EC Treaty, SEC(2005) 1658 final.

[43] Ibid (n 42) 2. See also Communication from the Commission—Updating of data used to calculate lump sum and penalty payments to be proposed by the Commission to the Court of Justice in infringement proceeding (17 September 2014) C(2014) 6767 final.

[44] Case C-304/02 *Commission v France* ECLI:EU:C:2005:444, paras 62–63.

[45] Wennerås *The Enforcement of EC Environmental Law* (n 26) 227.

[46] Case C-610/10 *Commission v Spain* ECLI:EU:C:2012:781, paras 117–19 and the case law cited there.

[47] Case C-279/11 *Commission v Ireland* ECLI:EU:C:2012:820, para 72 and the case law cited there.

[48] Case C-304/02 *Commission v France* (n 44), para 81.

In one case the Commission may in connection with infringement proceedings indicate directly the lump sum or penalty payment that the Member State should pay. This is when the Commission acts because it considers that a Member State has not complied with its obligation to notify measures transposing a directive adopted under a legislative procedure. There is no need in such cases for a separate action after the Court has held that the State has failed to implement a directive in due time and inform the Commission thereof. In such a case, the Court may not impose on the Member State a higher amount than that indicated by the Commission.[49] (Art 260 (3) TFEU)

The possibility to order a Member State to pay a penalty for breach of obligations was introduced in the Treaty of Maastricht in 1993. The environment was among the first areas in which the Commission chose to make use of this new possibility. The Court of Justice's first judgment containing a decision on financial penalties against a Member State was announced in 2000.[50] The case concerned Greece's failure to fulfil its obligations under two former waste directives. The Court had already in 1992 found that Greece, by not disposing of toxic and dangerous waste in the Chania region in Crete and not closing an illegal landfill in a deep ravine, had violated those directives.[51] As Greece had not taken the necessary measures to comply with the judgment of 1992 and to correct its legislation, the Court imposed a penalty payment of EUR 20,000 to the Commission for each day that ended without the actions required to comply with the judgment.[52] In February 2001 Greece took measures to implement the Court's first judgment and paid EUR 5,400,000 in liquidated damages for the period from July 2000 to March 2001.

It is debatable how effective infringement proceedings are. The fact that infringement procedures are often repeated in similar cases suggests that they are not so effective and dissuasive[53]—at least not with respect to other Member States in the same or a similar situation as the one against which an action is brought.

5.5 Actions for Annulment and for Failure to Act

It is not just the Member States that are obliged to respect and properly implement EU law. The EU institutions must also act in accordance with the relevant rules concerning distribution of competences and take into account the EU's general principles such as proportionality and legal certainty. There is no guarantee that all legislation and other legally relevant measures adopted in the EU are properly designed and conform to the requirements of EU law. A possibility for judicial review

[49] See further Communication from the Commission—Implementation of Article 260(3) TFEU (11 November 2010) SEC (2010) 1371 final.

[50] Case C-387/97 *Commission v Greece* ECLI:EU:C:2000:356.

[51] Case C-45/91 *Commission v Greece* ECLI:EU:C:1992:164.

[52] Case C-387/97 *Commission v Greece* (n 50), para 99.

[53] Wennerås *The Enforcement of EC Environmental Law* (n 26) 251.

of the EU's own institutions' interpretation and application of the law is therefore essential and is provided for in Article 263 TFEU.

National courts and authorities cannot independently terminate or refuse to apply EU legislation if they consider that it is in breach of the Treaties or the general principles of EU law.[54] In such situations, Member States and the EU institutions can bring annulment proceedings before the Court of Justice. Such action may relate to lack of competence, to infringement of essential procedural requirements of the Treaties or of any rule of law relating to their application, or to misuse of power (Art 263 (2) TFEU).[55] Annulment proceedings involve an assessment of the legality and the appropriateness of an act. A relatively common cause of action for annulment is that the Commission, Parliament, and Council have different views on the correct legal basis for a particular act. This is discussed in more detail in Chapter 4. National courts must also, when the question of an EU measure of general application arises in a case before them, request from the Court of Justice a preliminary ruling on the validity of the legal act. This is discussed below in the section on preliminary rulings.

Individuals can also have recourse to a plea of an act's incompatibility with the Treaties. To do so directly before the Court of Justice is very difficult because it requires that the individual be regarded as directly concerned if he or she is to have access to justice (see section 5.7). It may be easier to initiate a national process where the issue of the legality of an EU legal act is raised and try to get the national court to seek a preliminary ruling from the Court of Justice on the issue.

Action for invalidity of a legal act under Article 263 TFEU is subject to fairly strict time limits. Action must be brought within two months of the publication of the measure or, where relevant, notification to the applicant or, in the absence thereof, of the day on which the applicant became aware of the act.

Within the context of an action for annulment of a measure, the Court can order suspension of operation of the contested measure (Art 278 TFEU). However, action for annulment is not in itself an obstacle to enforcement.

As noted in Chapter 2, the Court of First Instance (now General Court) in Case T-229/04 *Sweden v Commission* annulled a Commission directive due to infringement of, inter alia, the integration principle, the precautionary principle, and the principle of a high level of protection.[56]

If the EP, the European Council, the Council, or the Commission, in infringement of the Treaties, fail to act, the Member States and the other institutions, under Article 265 TFEU, may appeal to the Court of Justice to have the infringement established. The same applies if Union agencies and bodies fail to take action. A prerequisite for such action is that the institution, body, office, or agency concerned has first been called upon to act, and that a certain time has elapsed thereafter. Any natural or legal person may complain to the Court that an institution, body, office,

[54] Case 314/85 *Foto-Frost* ECLI:EU:C:1987:452.

[55] For various grounds for annulment, see C Barnard and S Peers (eds) *European Union Law* (Oxford University Press, 2014) 280.

[56] Case T-229/04 *Sweden v Commission* ECLI:EU:T:2007:217, para 262.

or agency of the Union has failed to address to that person any act other than a recommendation or an opinion (Art 265 TFEU).

5.6 Preliminary Rulings

Another type of proceeding relates to preliminary rulings that the Court of Justice issues on the initiative of the courts in the Member States. This can apply to interpretation of the Treaties themselves or to the validity or the correct interpretation of legal acts adopted under the Treaties.

When such a question is raised before a national court, that court may, if it considers a decision from the Court of Justice necessary for its own adjudication, ask the Court for a preliminary ruling. If such question is raised in a case pending before a court or tribunal of a Member State against whose decisions there is no judicial remedy under national law, that court *shall* bring the matter before the Court of Justice (Art 267 TFEU).[57] One purpose of this obligation is to avoid a domestic case law in any Member State that does not comply with EU rules. The Court of Justice has set strict requirements for when EU law is deemed to be so obvious that a national court against whose decisions there is no judicial remedy can decline to seek a preliminary ruling.[58] It is, however, in practice the national court itself that assesses whether it needs a decision from the Court of Justice, and an obligation to turn there thus exists. Failure to seek a ruling, when it is mandatory, is an infringement of the Treaties and may be the basis for an infringement proceeding initiated by the Commission. Since national courts have no jurisdiction to declare a Community act invalid, they are in practice forced to turn to the Court of Justice if such examination becomes necessary in cases pending before them.

It is the national court that has a right, and sometimes an obligation, to seek a preliminary ruling. The parties to a case do not have this possibility and the national court is not obliged to seek a preliminary ruling or ask a specific question from the Court of Justice at a party's request.

The possibility of requesting preliminary rulings is not limited to courts in the narrow sense. EU case law shows that other bodies exercising a governmental judicial function are also covered in many cases.[59] The possibility to request a

[57] The Court of Justice has found that a requirement of a declaration of admissibility by a higher court for a case to be reviewed by the higher court does not mean that there is no legal remedy against the lower court's ruling. Case C-99/00 *Lyckeskog* ECLI:EU:C:2002:329, para 17.

[58] Such a court or tribunal is obliged, where a question of EU law is raised before it, to bring the matter before the Court of Justice, unless it has established that the question raised is irrelevant or that the provision of EU law concerned has already been interpreted by the Court or that the correct application of EU law is so obvious as to leave no scope for any reasonable doubt. Case 283/81 *CILFIT* ECLI:EU:C:1982:335, paras 13–16 and 21; Case C-160/14 *Ferreira da Silva e Brito and Others* ECLI:EU:C:2015:565, para 38 and the case law cited there.

[59] The Court of Justice has declared several criteria for defining the concept of a court or tribunal in EU law. Accordingly, the concept implies that such a forum must be established by law, have a permanent existence, and exercise binding jurisdiction. Its procedures must be *inter partes*,

preliminary ruling is extensive also as regards the scope of the problems. The Court of Justice is in principle obliged to give a ruling as long as the questions asked concern the interpretation of EU law. The Court can, however, reject a request from a national court if, among other things, the questions are hypothetical or the Court lacks the factual or legal material necessary to give a useful answer.[60]

The Court of Justice cannot in the context of a preliminary ruling procedure repeal a piece of EU legislation but may declare the law invalid, which has a very similar effect.[61] Even if this is not stated in the Treaties, a preliminary ruling is binding on the national court that has requested it for the interpretation of the EU rules in question. Further, if the Court of Justice rules that an EU legislative act is invalid, not only the court requesting the preliminary ruling, but every national court must consider the act invalid.[62] The Court of Justice's interpretation in the context of a preliminary ruling also has a retroactive effect.[63]

The Court of Justice's role in a preliminary ruling is to clarify how EU law should be interpreted, while it is for the national court to apply the interpretation of EU rules to the individual case. In practice, however, the Court has not hesitated to formulate its decisions in a way that involves a fairly clear position, for example regarding a particular national rule's compatibility with EU law.[64]

The Court has ruled that a national court's request for a preliminary ruling on the validity of a Community act, in the same way as action for annulment of a legal act, constitutes a means of reviewing the legality of acts adopted by the EU institutions. In the context of an action for annulment, the applicant is permitted to request the suspension of the contested act, and the Court has power to grant the request. According to the Court of Justice, it follows from the requirement of coherence of the system of interim legal protection that national courts should also be able to order suspension of enforcement of a national administrative measure based on a Community regulation, the legality of which is contested.[65] However, this suspension may be granted only under the conditions that apply to decisions of the Court of Justice for interim measures. This involves, inter alia, an assessment of whether enforcement of the contested measure would cause such irreversible damage to the applicant as might not be made good should the EU act be annulled.[66] National administrative authorities, unlike courts, are not entitled to adopt interim measures even on the terms the Court has laid down.[67]

must apply the rule of law and be independent. See, eg, Case C-53/03 *Synetairismos Farmakopoion Aitolias and Others* ECLI:EU:C:2005:333, para 29; Case C-393/92 *Municipality of Almelo and Others* ECLI:EU:C:1994:171, para 21.

[60] Case C-344/04 *International Air Transport Association and others* ECLI:EU:C:2006:10, para 24.

[61] Wennerås *The Enforcement of EC Environmental Law* (n 26) 202.

[62] Case 66/80 *International Chemical Corporation* ECLI:EU:C:1981:102.

[63] Wennerås *The Enforcement of EC Environmental Law* (n 26) 182.

[64] Ibid 181.

[65] Joined cases C-143/88 and C-92/89 *Zuckerfabrik Süderdithmarschen* ECLI:EU:C:1991:65, para 18.

[66] Ibid, paras 27–9.

[67] Joined cases C-453/03, C-11/04, C-12/04, and C-194/04 *ABNA Ltd and Others* ECLI:EU:C:2005:741, para 108.

About half of all cases initiated before the Court of Justice are preliminary rulings, and this type of case has often led the Court to make fundamentally important statements.

5.7 Access to Justice for Natural and Legal Persons

The question of natural or legal persons' access to justice can be set in a broader context of a human right to a decent environment.[68] Various versions of the latter are expressed in the constitutions of some countries. Within the EU a proposal to include 'the right to a clean and healthy environment' in the EU Treaty was made by the Commissioner for the Environment during the negotiations for the adoption of the Treaty of Amsterdam in 1996, but was not accepted by the Member States.[69] Even today the TEU and the TFEU lack a general provision on such a right. However, the European Charter of Fundamental Rights, which is a basic EU document and according to Article 6 (1) TEU has the same legal value as the Treaties, contains one provision relating to environmental protection.

Its Article 37 states: 'A high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development.' Clearly, this provision does not speak of a right to a decent environment but sets out an obligation or at least a policy requirement for the EU. This should be compared with Article 31 of the Charter, which unequivocally declares: 'Every worker has the right to working conditions which respect his or her health, safety and dignity.'

Lack of any individually justiciable right to a decent environment in the EU basic documents is not surprising since the mere inclusion of such a right, which is obviously imprecise and vague, may be of limited value if beneficiaries cannot effectively invoke it before courts.[70] Such inclusion does not necessarily improve an individual's possibility to properly enjoy that right.

Despite the lack of a substantive general right to a good environment, the possibilities of natural or legal persons to claim their rights to a good environment through relevant legal procedural rules have developed considerably. Particularly relevant is the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention),[71] to which EU Member States and the EU itself are all parties. This convention contains

[68] For comprehensive analysis of a general right to environmental protection in the EU, see N de Sadeleer *EU Environmental Law and the Internal Market* (Oxford University Press, 2014) 94–125; see also P Z Eleftheriadis 'The Future of Environmental Rights in the European Union' in P Alston et al (eds) *The EU and Human Rights* (Oxford University Press, 1999) 529–49.

[69] G Van Calster and K Deketelaere 'Amsterdam, the Intergovernmental Conference and Greening the EU Treaty' (1998) 7 *European Environmental Law Review* 12–25, 25.

[70] de Sadeleer *EU Environmental Law and the Internal Market* (n 68) 101.

[71] (Aarhus, 25 June 1998) 2161 UNTS 447.

procedural rights in the environmental field that can be invoked by individuals. The Court of Justice has held that provisions of the Convention are an integral part of the legal order of the EU.[72] Its implementation has improved the standing of both individuals and environmental NGOs in EU Member States. However, following the principle of procedural autonomy, Member States still retain considerable power to shape the standing requirements. (See further section 7.5.)

As regards the right of natural and legal persons to bring an action before the Court of Justice, a general right exists with respect to an EU act that is addressed to them (usually a decision), or directly and individually concerns them (Art 263 (4) TFEU).[73] The origin of this right was Article 173 of the EEC Treaty (later Art 230 of the EC Treaty and presently Art 263 TFEU), which stipulates 'Any natural or legal person may … institute proceedings against a decision addressed to that person or against a decision which, although in the form of a regulation or a decision addressed to another person, is of *direct and individual* concern to the former' (emphasis added).

The criterion of 'individual concern' was interpreted for the first time in *Plaumann v Commission*[74] from 1963. In this case, the Court laid down what has become known as the Plaumann formula: for natural or legal persons other than those to whom an act (in this case a decision) is addressed to be individually concerned by that act, it has to affect them 'by reason of certain attributes which are peculiar to them or by reason of circumstances in which they are differentiated from all other persons and by virtue of these factors distinguishes them individually just as in the case of the person addressed'.[75] This very restrictive interpretation of 'direct and individual concern' has made it almost impossible for individuals who are not addressees of an EU measure of general application to challenge it. The Plaumann formula has regularly been relied on in EU court practice to establish whether natural or legal persons other than those to whom an EU act is addressed have standing.[76]

The Treaty of Lisbon also introduced the possibility for natural and legal persons to bring proceedings against *a regulatory act* which is of direct, but not necessarily individual, concern to them and does not entail implementing measures (Art 263 (4) TFEU).[77] In the *Greenpeace* case in 1998 the possibility for individuals to turn to the Court of Justice in a case with a clear environmental dimension was

[72] Case C-240/09 *Lesoochranárske zoskupenie* ECLI:EU:C:2011:125, para 30.

[73] Decisions addressing one or more individuals are rare in the environmental field. Where decisions are used at all, they are normally directed to the Member States. An exception is a decision adopted according to Regulation (EC) No 1049/2001 of the European Parliament and of the Council regarding public access to European Parliament, Council and Commission documents [2001] OJ L 145/43.

[74] Case 25/62 *Plaumann* ECLI:EU:C:1962:32. [75] Ibid, p 107.

[76] See, eg, Case C-298/00 P *Italy v Commission* ECLI:EU:C:2004:234, para 36; Case C-167/02 P *Rothley and Others* ECLI:EU:C:2004:193, para 25; Case C-50/00 P *Unión de Pequeños Agricultores* ECLI:EU:C:2002:462, para 36; Joined Cases C-71/09 P, C-73/09 P, and C-76/09 P *Comitato «Venezia vuole vivere»* ECLI:EU:C:2011:368, para 52.

[77] The Court of Justice interpreted the concept of 'regulatory act' in Case 583/11 P *Inuit Tapiriit Kanatami and Others* ECLI:EU:C:2013:625. The case was about the application of a number of seal hunters for annulment of Regulation (EC) No 1007/2009 on trade in seal products. The Court concluded that 'regulatory act' does not encompass legislative acts (para 61).

judged by the Court.[78] The Commission had decided to grant Spain financial assistance for the construction of two power stations in the Canary Islands. The grant would be allocated over four years and could be reduced or suspended if it turned out that there had been irregularities. Local residents and environmental organisations informed the Commission that the Unión Eléctrica de Canarias SA (Unelco) had embarked on the project without conducting an environmental impact assessment (EIA) under Directive 85/337/EEC. When Greenpeace Spain contacted the Commission it was informed that the Commission, although aware that Unelco had made no EIA, had continued to pay the financial assistance.

Greenpeace and sixteen individuals and environmental organisations brought an action against the Commission under the current Article 263 TFEU before the Court of First Instance (now General Court).[79] The Court held that

> the existence of harm suffered or to be suffered, cannot alone suffice to confer locus standi on an applicant, since such harm may affect, generally and in the abstract, a large number of persons who cannot be determined in advance in a way which distinguishes them in the same way as the addressee of a decision.[80]

The applicants' status as local residents, fishermen, or farmers did not distinguish them from all the people who live or practise some business in the concerned areas.[81] The Court also dismissed the argument that an organisation could have locus standi when the people it represents are not personally affected.[82]

The judgment was appealed against before the Court of Justice, which agreed that the appellants were not individually affected by the legal act. Furthermore, the Court noted, among other things, that Greenpeace had brought proceedings against the administrative authorisations granted to Unelco by national courts and that individuals' rights under Directive 85/337/EEC were fully protected by these courts, which may request a preliminary ruling from the Court of Justice.[83] The Court of Justice has subsequently made it clear that the fact that an individual is debarred due to national procedural rules from bringing an action before national courts regarding a review of the contentious measures of general application does not in itself confer a right to sue for annulment directly before the Court of Justice.[84]

As noted previously, the Court of Justice considers national courts' possibility to request a preliminary ruling on the validity of a Community act as a mechanism for reviewing the legality of such acts in the same way as an action for annulment.[85] As conditions for the individual to initiate an annulment action under Article 263 TFEU are strict, a preliminary ruling is often the only real possibility to bring about a judicial review of an act's validity. At the same time, the ability to bring a judicial

[78] Case C-321/95 P *Stichting Greenpeace Council and Others* ECLI:EU:C:1998:153.
[79] Case T-585/93 *Greenpeace International and Others* ECLI:EU:T:1995:147.
[80] Ibid, para 51. [81] Ibid, para 54. [82] Ibid, para 60.
[83] Case C-321/95 P *Stichting Greenpeace* (n 78), paras 28–32.
[84] Case C-50/00 P *Unión de Pequeños Agricultores* (n 76), para 43.
[85] Joined cases C-143/88 and C-92/89 *Zuckerfabrik* (n 65), para 18.

review by a preliminary ruling depends on individuals' access to justice and other procedural requirements in each Member State. The assumption is that in enforcing EU law, Member States apply their own procedural rules, including principles relating to the right of individuals to bring an action. This accords with the principle of procedural autonomy of Member States. However, since 2009 there has been an explicit requirement for Member States to provide remedies sufficient to ensure effective legal protection in the fields covered by Union law (Article 19 (1) TEU). This reflects the practice of legal protection that the Court had previously developed. The Court has, inter alia, ruled that the national procedures relating to the application of EU law should not be less favourable than those governing similar domestic situations (principle of equivalence) or render virtually impossible or excessively difficult the exercise of rights conferred by EU law (principle of effectiveness).[86]

As mentioned in Chapter 1, a Member State can be liable to indemnify an individual suffering damage caused by incorrect application of EU law, according to the *Francovich* principle.[87] According to the Court of Justice, a right to reparation exists if three conditions are met, namely that the rule infringed is intended to confer rights on individuals, that the breach is sufficiently serious, and, finally, that there is a direct causal link between the breach of the Member State's obligation and the damage sustained by the injured parties.[88]

Provisions in secondary EU law on access to justice in the Member States and access to justice regarding EU institutions and bodies are discussed in section 7.5.

Further Reading

GJ Harryvan and JH Jans 'Internal Review of EU Environmental Measures' (2010) 2 *Review of European Administrative Law* 53–65

M Hedemann-Robinson *Enforcement of European Union Environmental Law* (Routledge, 2015)

P Lasok, T Millett, and A Howard *Judicial Control in the EU, Procedures and Principles* (Oxford University Press, 2008)

K Lenaerts and JA Gutiérrez-Fons 'The General System of EU Environmental Law Enforcement' (2011) 30 *Yearbook of European Law* 3–41

R O'Gorman 'The Case for Enshrining a Right to Environment in EU Law' (2013) 19 *European Public Law* 583–604

P Wennerås *The Enforcement of EC Environmental Law* (Oxford University Press, 2007)

[86] Case C-201/02 *Wells* ECLI:EU:C:2004:12, para 67.

[87] Named after Joined cases C-6/90 and C-9/90 *Francovich and Others* ECLI:EU:C:1991:428, para 11.

[88] On the significance of the *Francovich* principle in the environmental field, see Wennerås *The Enforcement of EC Environmental Law* (n 26) 150.

PART II

SECONDARY LAW

6

Instruments, Approaches, and Trends in EU Secondary Environmental Law

As seen in the discussion about the so far seven environmental action programmes (see Chapter 2), the first of which was adopted in 1973, EU environmental policy has evolved over more than four decades. Starting with a rather narrow focus, it has come to encompass a large number of increasingly complex problems. Although it took until 1987 for a formal legal basis for environmental measures to be included in the EC Treaty, the EEC legislator had at that time already adopted numerous legal acts concerned with protection of the environment. The measures adopted to deal with environmental challenges were originally focused primarily on hazardous characteristics of products, notably chemicals, and on emissions of polluting substances into water and, eventually, air. Initially attention was given mostly to substances posing health risks.[1] However, already the first action programme holds the seeds of what today are known as internalisation of environmental costs, environmental impact assessment (EIA), and access to environmental information, that is, mechanisms that are central to 'modern' environmental policy. It did, however, take some time to turn these into concrete measures. It was, for example, only in 1990 that a right to environmental information actually became part of EU law.[2] A directive on EIA was adopted somewhat earlier, in 1985.[3] In the 1980s, increasing awareness of the limitations of existing policies led to more attention to implementation and transsectoral challenges, such as how to avoid regulatory measures resulting in shifting of pollution between natural media, rather than actual abatement. It took, however, until the mid-1990s before a directive on 'integrated pollution prevention and control' was adopted to achieve a high level of protection for the environment as a whole.[4] Another example of an 'integrating' directive from about the same time is the directive on ambient air quality assessment and management.[5]

The realisation that environmental policy is of little significance if it does not permeate other policy areas, such as industry, transport, energy, and agriculture, also led, in the mid-1980s, to the inclusion in the then EC Treaty of what is now known as the integration principle. Achieving effective integration and deciding

[1] I von Homeyer 'The Evolution of EU Environmental Governance' in J Scott (ed) *Environmental Protection: European Law and Governance* (Oxford University Press, 2009) 8.
[2] See section 7.5.1. [3] See section 7.1. [4] [1996] OJ L 257/26.
[5] [1996] OJ L 296/55.

how environmental objectives are to be reconciled with other policy objectives is, however, still very much an on-going process. (See Chapter 2.)

With the advent of first ozone depletion and, soon after, climate change as major environmental issues, EU policy became increasingly global in focus. The EU is today party to the vast majority of global and relevant regional multilateral environmental agreements, and generally transposes its international obligations into secondary law acts (see Chapter 4). The scale of environmental policy has also increased, in the sense that the ecological limits of the planet as a whole now constitute a main guiding principle under a vision set for 2050.[6] At the same time, it is fairly obvious that the Union is still very much struggling to cut the link between the lifestyle of many Europeans and the huge pressure that puts on global and local ecosystems, often far outside the Union itself.

In the 1990s, and reflective of the emergence of 'sustainable development' as a core point of reference for environmental policy, EU policy became increasingly preoccupied with the effects not only of production but also of consumption and resource management. However, the first environmental action programme already talked about the need for rational use of natural resources. Some forty years later this has evolved into the notion of a 'circular economy' emphasising reuse, recycling, and general resource efficiency not only for their environmental benefits but also in order to become more self-sufficient with respect to potentially scarce resources. (See Chapter 12.)

In parallel with the ambition of EU environmental policy to cover ever more problems has been a partial shift in what kind of regulatory mechanisms are being employed. The 1990s and early 2000s saw an increasing use of 'alternative' regulatory instruments, that is, alternatives to direct regulation. Among these are market-based instruments such as emissions trading, eco-labelling, eco-management and audit, and voluntary agreements of various kinds. This is reflective both of an ideological shift, putting increasing weight on the role of non-state actors and market forces in the pursuit of sustainable development, and of increased focus on the potential implications of environmental policy on competition in a globalised economy. It is also, however, an adaptation to the fact that EU law addresses more complex and diffuse problems involving ever more stakeholders. Perhaps most significant, and most discussed, is the emergence of the framework directive as a choice of preference in areas not directly linked to product standards and the functioning of the internal market.[7]

Directives are in a sense always frame-like by nature, since they are binding as to the result to be achieved but shall leave to the national authorities

[6] See Seventh Environment Action Programme, 'Living well, within the limits of our planet' [2013] OJ L 354/171.

[7] See, eg, Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for Community action in the field of water policy [2000] OJ L 327/1 ('Water Framework Directive', WFD) and Directive 2008/56/EC of the European Parliament and of the Council establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive) [2008] OJ L 164/19 ('MSFD') as discussed in Chapter 10.

the choice of form and methods. However, the result, expressed for example in terms of environmental quality standards or emission limit values, can be set out in much detail. And directives may also, in fact, be quite prescriptive about how results are to be achieved. Framework directives, however, typically grant the individual Member State significant leeway for devising the measures required to achieve common objectives. Even the ultimate aims may be partly defined by the Member States, at least in the sense of defining the specific meaning of these aims or objectives in relation to, for example, a body of water. This should make framework directives, such as the Water Framework Directive (WFD),[8] well suited for accommodating variations in the natural environment and the intensity and nature of human activities at regional or even local levels. Such directives also tend to emphasise generation of data and the continuous adaptation of policy measures in the light of increased understanding of the ecosystems and of the effects of legislative and other measures.[9] The involvement of many stakeholders in these processes is also characteristic of framework directives. Ideally, this should increase the quality of decisions, as well as make the measures actually implemented more legitimate in the eyes of those affected.[10]

When addressing very complex problems, often displaying strong geographical variations, the setting of more general objectives which are to be gradually defined, fine-tuned, and translated into measures at national or regional level is in many ways a sensible and even necessary approach. But it does have its drawbacks. The more that is left to individual Member States to determine, for example in terms of (intermediate) objectives and weighing up of potentially competing interests, the greater the risk for inconsistent policies and diverging levels of protection. This is not necessarily a problem as long as an acceptable minimum level is guaranteed throughout the Union. However, that may also be hard to achieve when more is determined by the policy choices and level of ambition among numerous national authorities. A common critique is also that increasingly vague standards make it hard to assess the effects of EU measures and undermine accountability.[11] With respect to transboundary resources, vague standards put increased emphasis on the need for effective cooperation and coordination. Directives such as the WFD, the Marine Strategy Framework Directive,[12] and the directive on maritime spatial planning[13] all emphasise cooperation, but they tend to be less clear about how it is to be carried out (see Chapter 10). Desired policy coordination and calibration tend, in

[8] Dir 2000/60/EC (n 7).

[9] See, eg, Dir 2008/56/EC (n 7), preambular para 23.

[10] However, the 'governance approach', of which framework directives are typical, has been criticised for a lack of empirical underpinning. S van Holten and M van Rijswick 'The Consequences of a Governance Approach in European Environmental Directives for Flexibility, Effectiveness and Legitimacy' in M Peeters and R Uylenburg (eds) *EU Environmental Legislation—Legal Perspectives on Regulatory Strategies* (Edward Elgar Publishing, 2014) 13–47, 14.

[11] See, eg, Peeters and Uylenburg (eds) *EU Environmental Legislation* (n 10) 15.

[12] Dir 2008/56/EC (n 7).

[13] Directive 2014/89/EU establishing a framework for maritime spatial planning (MSPFD) [2014] OJ L 257/135.

what has been called the 'new governance' model, to be pursued by means of non-binding documents and sometimes rather informal processes.[14] Environmental quality standards (EQS), which define the desired state of a certain environmental media (recipient) while more or less leaving it to national authorities to decide what measures are needed to achieve those standards, are also often seen as part of this model.[15]

However, although there has, at least since the 1990s, been a significant focus on alternatives to 'end of pipe' or direct regulation, the detailed picture is rather mixed, and sharp distinctions between 'new' and 'old' measures are hard to make.[16] Environmental quality objectives were central to EU environmental policy from the beginning,[17] and EQS are normally combined with emission limit values (ELVs),[18] meaning that when EQS are not kept, that should trigger a revision of the conditions for individual polluters.[19] Although that feedback mechanism is not always smooth or very effective in practice, there has been no abandoning of emission limits in favour of quality standards, but rather an increased combination of both approaches. And as for the vagueness of the objectives set out in, inter alia, the WFD, it must be noted that the Court of Justice has not hesitated to interpret also quite complex ecological standards so as to give them potentially far-reaching effects in individual permit procedures.[20] Another example which does not fit the schematic model of going from old to new forms of environmental governance is the adoption of binding CO_2 emission standards for cars to replace voluntarily, and largely ineffective, commitments by industry. The scandals surrounding car emissions also illustrate the fact that the form of regulation—binding or voluntary, technical or goal-oriented—may have limited significance if there is a lack of proper monitoring and enforcement.

The most important market-based mechanism, the EU ETS, has also become more traditional in the sense that since 2013 an overall cap on CO_2 emissions from all the covered industries has been set at EU level. The trade elements of the mechanism are about allocating emission volumes between operators and thereby hopefully achieving increased economic efficiency. It does not in itself affect the total volume that is emitted. (See Chapter 11.)

[14] A pertinent example is the so-called Common Implementation Strategy for the WFD. See more on this in section 10.2.2.

[15] For an overview of such standards, see F Groothuijse and R Uylenburg 'Everything According to Plan? Achieving Environmental Quality Standards by a Programmatic Approach' in M Peeters and R Uylenburg (eds) *EU Environmental Legislation—Legal Perspectives on Regulatory Strategies* (Edward Elgar Publishing, 2014) 116–45.

[16] M Lee *EU Environmental Law, Governance and Decision-Making* (2nd edn, Hart Publishing, 2014) 106.

[17] Homeyer 'The Evolution of EU Environmental Governance' (n 1) 10.

[18] ELVs are levels of an emission which may not be exceeded during a specified period of time.

[19] See Dir 2000/60/EC (n 7) Art 10 and Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions (integrated pollution prevention and control) ('IED') [2010] OJ L 334/17, Art 18.

[20] See, in particular, Case C-461/13 *Bund für Umwelt und Naturschutz Deutschland* ECLI:EU:C:2015:433.

A more obvious trend towards de-centralisation can be seen in relation to genetically modified organisms. In this area, the EU legislator has recently handed back to the Member States decision-making authority which had been firmly, although largely ineffectively, vested with the Union for some time (see Chapter 14). While EU law has come to cover, more or less extensively, most conceivable areas of environmental policy—with soil protection the most conspicuous exception—it has at the same time given the Member States more influence in many areas. But this trend also has clear exceptions, most notably the increased importance placed on so-called best available techniques reference documents, decided by the EU, to get more uniform environmental standards for industry (see Chapter 8).

Despite often being discussed in connection to increased efficiency and the cutting of regulatory 'red tape', it should be emphasised that novel and more flexible forms of regulation do not at all need to equal de-regulation, nor are they necessarily less costly or less demanding for public authorities. As has been pointedly noted, 'there is no escape from the need for public resources, in terms of money, expertise and information', whichever form of environmental regulation is chosen.[21]

The fact that there is such a large volume of EU environmental law but still significant environmental challenges and even overall trends that point in the wrong direction indicates that the effectiveness and effective implementation of environmental legislation remains a serious challenge.[22]

After this brief introduction to major trends and approaches in EU environmental regulation, we now turn to the substantive part of the second part of this book in which we look more closely at secondary EU environmental law through the prism of nine thematic areas: crosscutting measures; industrial emissions; air; water; climate; waste; chemicals; genetically modified organisms; and biological diversity.

Further Reading

European Environment Agency *The European environment—state and outlook 2015: synthesis report* (European Environment Agency, 2015)

I von Homeyer 'The Evolution of EU Environmental Governance' in J Scott (ed) *Environmental Protection: European Law and Governance* (Oxford University Press, 2009)

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N de Sadeleer *EU Environmental Law and the Internal Market* (Oxford University Press, 2014) Chap 4

J Scott 'Flexibility in the Implementation of EC Environmental Law' (2000) 1 *Yearbook of European Environmental Law* 36–60

[21] Lee *EU Environmental Law* (n 16) 107.

[22] On environmental trends, see European Environment Agency *The European environment—state and outlook 2015: synthesis report* (European Environment Agency, 2015).

7

Crosscutting Issues

Facts and figures

The European Pollutant Release and Transfer Register (E-PRTR) contains data reported annually by more than 30,000 industrial facilities.

(<http://prtr.ec.europa.eu/#/home>)

In 2015 there were 44,711 products and services, comprised by 2031 licences, that had been awarded the EU Ecolabel.

(<http://ec.europa.eu/environment/ecolabel/facts-and-figures.html>)

The Seveso Directive applies to > 10,000 industrial establishments in the EU where dangerous substances are used or stored in large quantities, mainly in the chemical, petrochemical, logistics and metal refining sectors.

(<http://ec.europa.eu/environment/seveso/>)

The average costs for developers for carrying out an environmental impact assessment are estimated at 1 per cent of the total project cost.

(SWD(2012) 355 final)

7.1 Environmental Impact Assessment (EIA)

7.1.1 Introduction

Adequate assessment of expected environmental impacts is a prerequisite for making well-founded decisions on activities that may significantly affect the environment. The legal framework concerning environmental impact assessment (EIA) comprises not only the actual assessment as such, but also the procedure through which an assessment is produced, including consultation with the parties concerned.

At the international level, a requirement to carry out EIAs for certain projects can be found in the 1991 Convention on Environmental Impact Assessment in a Transboundary Context (the Espoo Convention).[1] In 2003 the Convention was supplemented by a Protocol on Strategic Environmental Assessment (SEA) which entered into force in 2010.[2] The Protocol requires its Parties to assess the

[1] (Espoo, 25 February 1991) 1989 UNTS 309.

[2] Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context (the SEA Protocol) (Kiev, 21 May 2003) UN Doc ECE/MP.EIA/2003/2.

environmental consequences of certain official draft plans and programmes. The EU is party to both instruments.

7.1.2 The EIA Directive

The Commission tabled a proposal for a directive on EIA in 1980,[3] but it took until 1985 before Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment (EIA Directive) was adopted.[4] It was significantly amended in 1997 in order to make the EIA procedure apply in a more harmonised and efficient manner.[5] Further significant amendments were introduced in 2003, this time to strengthen the requirements on public participation and access to justice.[6] In 2011 the amendments were codified in Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.[7] Forming part of the EU's environmental policy, the Directive is based on Article 192(1) TFEU.

The codified Directive was significantly amended in 2014 in order to strengthen the quality of the EIA procedure, align the procedure with the principles of smart regulation, and enhance coherence and synergies with other Union legislation and policies. The intention was to achieve simplified and harmonised procedures while at the same time ensuring improvement of the environmental protection derived from the EIA procedure.[8]

The EIA Directive is deceptively short and, compared to many other EU legal acts, drafted in a fairly comprehensible way. However, its transposition and application in the Member States has generated a large number of cases before the Court of Justice. The huge differences in the number of EIAs historically carried out in similarly sized Member States also testify to the discrepant ways in which Member States have interpreted and given effect to core provisions of the Directive.[9] The Directive predominantly establishes procedural requirements rather than ones that guarantee a specific outcome in terms of environmental protection.

[3] Proposal for a Council Directive concerning the assessment of the environmental effects of certain public and private projects [1980] OJ No C 169/14.

[4] [1985] OJ L 175/40.

[5] Council Directive 97/11/EC amending Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment [1997] OJ L 73/5.

[6] Directive 2003/35/EC of the European Parliament and of the Council providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC [2003] OJ L 156/17, Art 3.

[7] [2012] OJ L 26/1.

[8] Directive 2014/52/EU of the European Parliament and of the Council amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment [2014] OJ L 124/1, preambular paras 3 and 6. On the balance between simplification and improvement of the protection of the environment, see H T Anker 'Simplifying EU Environmental Legislation: Reviewing the EIA Directive?' (2014) 11 *Journal for European Environmental & Planning Law* 321–47.

[9] Commission Staff Working Paper—Impact Assessment Accompanying the Document Proposal for a Directive of the European Parliament and of the Council amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (26 October 2012) SWD(2012) 355 final, 5.

7.1.2.1 When is an EIA required?

Member States are obliged to adopt all measures necessary to ensure that, before development consent is given, projects likely to have significant effects on the environment by virtue, inter alia, of their nature, size, or location are made subject to a requirement for development consent and an assessment with regard to their effects on the environment. By 'project' is understood the execution of construction works or of other installations or schemes as well as other interventions in the natural surroundings and landscape, including those involving the extraction of mineral resources.[10] The Directive does not apply to projects the details of which are adopted by a specific act of national legislation, since the Directive's objectives are then seen as being achieved through the legislative process.[11] (Arts 1 and 2.)

The determination of whether a particular project is 'likely to have significant effects on the environment' is fundamental since it is only those projects that are required to undergo an EIA. This determination, often referred to as 'screening', is facilitated by the listing, in Annex I, of projects which are always considered to have significant environmental effects, thereby making an EIA compulsory. Among the project types listed are thermal power stations with a certain output, integrated works for the initial smelting of cast iron and steel, and the construction of motorways. Changes to or extensions of listed projects are also subject to compulsory EIA, provided that they in themselves meet any applicable thresholds set out in the Annex.

With respect to projects listed in Annex II, the situation is more complicated. For these projects the Member States must determine whether they shall be made subject to an EIA either through a case-by-case examination or by setting thresholds or criteria, or a combination of both methods. When making this determination the criteria set out in Annex III must be taken into account. These criteria relate to the characteristics and the location of the project, and to characteristics of the potential impact. It is not permissible to establish criteria and/or thresholds taking account only of the size of projects, without also taking their nature and location into consideration.[12]

Thresholds or criteria may be used to determine when projects should be made subject to an EIA without undergoing a screening as described in the Directive, as well as to determine when they need not undergo either EIA or a screening procedure. However, both criteria and thresholds are meant to facilitate examination of the actual characteristics of any given project in order to determine whether it is

[10] On the terms 'project' and 'construction' see Case C-275/09 *Brussels Hoofdstedelijk Gewest and Others* ECLI:EU:C:2011:154, paras 20, 24, 27, and 38.

[11] However, a legislative act 'which does no more than simply "ratify" a pre-existing administrative act' is not sufficient to exclude a project from the ambit of the EIA Directive. The objectives of the Directive must have been achieved by the legislative process. Joined Cases C-128/09 to C-131/09, C-134/09, and C-135/09, *Boxus and others* ECLI:EU:C:2011:667, para 48. Whether a legislative act satisfies these conditions must be amenable to review. Ibid, para 54.

[12] Case C-2/07 *Abraham and Others* ECLI:EU:C:2008:133, para 38.

subject to the requirement to carry out an EIA.[13] The Court of Justice has accordingly made clear that when a competent national authority receives a request for development consent for an Annex II project, it must carry out a specific evaluation as to whether, taking account of the criteria set out in Annex III, an EIA should be carried out.[14] It has also stated on numerous occasions that the scope of the Directive is wide and its purpose very broad.[15]

In ascertaining whether a project is to be made subject to an EIA it is not only the direct effects of the works envisaged that are to be taken into account but also the environmental impact liable to result from the use and exploitation of the end product of those works.[16] It is thus not only the environmental impact of the construction of, for example, a motorway or the extension of an airport that is to be considered, but also the impact of their subsequent use. A project's potential impact must also be examined jointly with other projects, including other kinds of projects.[17] It should thus not be possible to circumvent the Directive's objective by the splitting of projects, since they must anyway be considered jointly. It is also not acceptable to leave out of consideration any part of a project because it is located in another municipality or even another Member State.[18]

The Court of Justice has made clear that if consent has been granted for a project listed in Annex II without it having been examined whether an EIA was required, the competent authorities are obliged to take, within the sphere of their competence, all measures necessary to ensure that the project is examined in order to determine whether it is likely to have significant effects on the environment and, if so, to ensure that it is subject to an EIA. These measures may include the revocation or suspension of a consent already granted. This obligation applies even if it has repercussions for third parties, such as users of the land concerned.[19] In such a situation the pertinent provisions of the Directive thus have direct effect.

When a Member State decides to require a determination, as described in the Directive, for projects listed in Annex II, the developer shall provide information on the characteristics of the project and its likely significant effects on the environment as specified in Annex IIA. If the competent national authority decides that an EIA is required, the determination must state the main reasons for requiring an EIA with reference to the relevant criteria listed in Annex III. If an EIA is not required it shall state the main reasons therefore with reference to the relevant criteria, and, where proposed by the developer, also state any features of the project and/or measures envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment. The determination shall be made available to

[13] Case C-244/12 *Salzburger Flughafen* EU:C:2013:203, para 30.

[14] Case C-531/13 *Marktgemeinde Straßwalchen and Others* ECLI:EU:C:2015:79, para 42.

[15] See, inter alia, Case C-72/95 *Kraaijeveld and Others* ECLI:EU:C:1996:404, para 31; Case C-435/97 *WWF and Others* ECLI:EU:C:1999:418, para 40.

[16] Case C-2/07 *Abraham and Others* (n 12), para 43.

[17] Case C-531/13 *Marktgemeinde Straßwalchen and Others* ECLI:EU:C:2015:79, para 45.

[18] Ibid, para 46; Case C-205/08 *Umweltanwalt von Kärnten* ECLI:EU:C:2009:767, para 55.

[19] Case C-201/02 *Wells* ECLI:EU:C:2004:12, para 65; and Case C-244/12 *Salzburger Flughafen* (n 13), paras 46–48.

the public. The competent authority shall make its determination as soon as possible and within a period of time not exceeding ninety days from the date on which the developer had submitted all the information required. In exceptional cases, the deadline may be extended. (Art 4.)

In exceptional cases, Member States may exempt a specific project from the provisions of the Directive where the application of those provisions would result in adversely affecting the purpose of the project, provided the objectives of the Directive are anyway met. This is without prejudice to the provisions in Article 7 on projects that are likely to have significant effects on the environment in another Member State. If making use of this right to exempt a project, the Member State concerned must inform the Commission, prior to granting consent, of the reasons justifying the exemption. Similar information must be made available to the public concerned. (Art 2.)

Member States may also decide, on a case-by-case basis, not to apply the Directive to projects, or parts thereof, that have defence or the response to civil emergencies as their sole purpose, if they deem that such application would have an adverse effect on those purposes. (Art 2.)

Importantly, the Directive does not require an EIA to be carried out with respect to projects that are not listed in either Annex I or Annex II, even if such a project is de facto likely to have significant effects on the environment.

7.1.2.2 The EIA

For the purpose of the Directive an EIA is defined as a process consisting of five parts. Briefly put, these are: (a) the preparation of an EIA report by the developer; (b) the carrying out of consultations; (c) the examination by the competent authority of the information received; (d) a reasoned conclusion by the competent authority on the significant effects of the project on the environment; and (e) the integration of the reasoned conclusion into a decision to grant or refuse development consent (Art 1). In the following this process will be described in some more detail.

The EIA may be integrated into existing procedures for development consent to projects in the Member States, or, failing this, into other procedures. In cases where an obligation to carry out assessments of the effects on the environment arises simultaneously from the EIA Directive and from the Habitats Directive (Directive 92/43/EEC) and/or the Birds Directive (Directive 2009/147/EC), Member States shall ensure that coordinated and/or joint procedures fulfilling the requirements of that legislation are provided for. However, this obligation only applies 'where appropriate'. (Art 2.)

Where national law provides that the consent procedure is to be carried out in several stages, the EIA in respect of a project must, in principle, be carried out as soon as it is possible to identify and assess all the effects which the project may have on the environment.[20]

[20] Case C-201/02 *Wells* (n 19), para 53.

The EIA shall identify, describe, and assess in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of a project on: population and human health; biodiversity, with particular attention to species and habitats protected under the Habitats and Birds Directives; land, soil, water, air, and climate; material assets, cultural heritage, and the landscape; and the interaction between these factors (Art 3).

Although an EIA does not include an assessment of effects on the value of material assets, pecuniary damage, in so far as it is the direct economic consequence of a project's effects on the environment, is covered by the objective of protection pursued by the Directive.[21]

Where an EIA is required, the developer must prepare and submit an EIA report. The information that must be provided by the developer is set out in Article 5(1). Among the required pieces of information are a description of relevant features of the project, a description of the likely significant effects on the environment, and a description of the features of the project and/or measures envisaged in order to avoid, prevent, or reduce and, if possible, offset such effects. A description of the reasonable alternatives studied by the developer and an indication of the main reasons for the option chosen must also be submitted, as must a non-technical summary of the required information. Annex IV specifies additional information that must be provided when relevant to the specific characteristics of a particular project or type of project and to the environmental features likely to be affected.

If the developer so requests, the competent authority shall issue an opinion on the scope and level of detail of the information to be included by the developer in the EIA report (often referred to as a 'scoping opinion'). Where such an opinion has been issued, the EIA report shall be based on it and include the information that may reasonably be required for reaching a reasoned conclusion on the significant effects of the project on the environment, taking into account current knowledge and methods of assessment. Member States may require the competent authorities to give a scoping opinion irrespective of whether the developer has requested it. (Art 5.)

In order to ensure the completeness and quality of the EIA report, the developer must ensure that the report is prepared by competent experts and the competent authority must have access to sufficient expertise to examine the report. Where necessary, the authority shall seek from the developer supplementary information in accordance with Annex IV. (Art 5.)

[21] The fact that an EIA has not been carried out, in breach of the Directive, does not, in principle and by itself, confer on an individual a right to compensation for purely pecuniary damage caused by the decrease in the value of her property as a result of the environmental effects of that project. However, if the requirements of EU law applicable to the right to compensation have been satisfied, then the affected individual has a right to reparation on the basis of EU law directly. But the fact that the Directive does not lay down substantive rules in relation to the balancing of the environmental effects with other factors or prohibit the completion of projects which are liable to have negative effects on the environment suggests that failure to carry out an assessment does not, in principle, by itself constitute the reason for the decrease in the value of a property. Case C-420/11 *Leth* ECLI:EU:C:2013:166, paras 36, 42, 46, and 48.

The authorities likely to be concerned by a project by reason of their specific environmental responsibilities or local and regional competences shall be given an opportunity to express their opinion on the information supplied by the developer and on the request for development consent (Art 6).

7.1.2.3 Information to the public, public participation and access to justice

With a view to ensuring the effective participation of the public concerned in the decision-making procedures, the Directive contains, in Article 6, rather detailed requirements on making information publicly available. For the purpose of the Directive, the 'public concerned' is the public affected or likely to be affected by, or having an interest in, the procedures for development consent or other procedures into which the EIA has been integrated. Non-governmental organisations promoting environmental protection and meeting any requirements under national law shall be deemed to have an interest.

Early in relevant decision-making procedures for development consent, the public must be informed electronically and by other appropriate means of several listed matters. Among these are the request for development consent; the fact that the project is subject to an EIA procedure; details of the competent authorities responsible for taking the decision; and details of the time schedule for transmitting comments or questions.

Within reasonable time frames, any information gathered from the developer as part of the EIA procedure must be made available to the public concerned. The public concerned is furthermore to be given early and effective opportunities to participate in the environmental decision-making procedures into which EIA has been integrated and shall be entitled to express comments and opinions when all options are open to the competent authority before the decision on development consent is taken.

When a decision to grant or refuse development consent has been taken, the competent authority must promptly inform the public thereof, and shall ensure that the content of the decision and any conditions attached thereto, as well as the main reasons and considerations on which the decision is based, are available to the public and to the authorities concerned. (Arts 6 and 9.)

Member States must ensure that, in accordance with the relevant national legal system, members of the public concerned who have a sufficient interest have access to a review procedure before a court of law or another independent and impartial body established by law to challenge the substantive or procedural legality of decisions, acts, or omissions subject to the public participation provisions of the Directive. Any such procedure shall be fair, equitable, timely, and not prohibitively expensive.[22] (Art 11.)

The right to challenge the legality of a decision may not be limited to cases when that is done on the ground that no EIA was carried out but must also allow for

[22] On the notion of 'prohibitively expensive' see Case C-260/11 *Edwards and Pallikaropoulos* ECLI:EU:C:2013:221 and Case C-530/11 *Commission v United Kingdom* ECLI:EU:C:2014:67.

challenges based on irregularities in the EIA procedure.[23] As a matter of principle, the public must be able to invoke any procedural defect in support of an action challenging the legality of decisions covered by the Directive.[24]

What constitutes a sufficient interest and impairment of a right shall be determined by the Member States, consistently with the objective of giving the public concerned wide access to justice. To that end, the interest of any non-governmental organisation promoting environmental protection and meeting any requirements under national law shall be deemed sufficient. (Art 11.)

Although the rights whose infringement may be relied on by an individual in legal proceedings may be confined to individual public law rights, such a limitation cannot be applied as such to environmental protection organisations. Those organisations must be able to rely on the rules of national law implementing EU environment law and the rules of EU environment law having direct effect.[25] Any conditions imposed under national law for non-governmental organisations promoting environmental protection to have a right of appeal must ensure wide access to justice and render effective the Directive's provisions on judicial remedies.[26]

Where the administrative procedural law of a Member State requires this as a precondition, the right to access to a review procedure may instead accrue to the public concerned who maintain the impairment of a right. The determination of what constitutes impairment of a right must be consistent with the objective of giving the public concerned wide access to justice. Non-governmental organisations promoting environmental protection and meeting any requirements under national law shall be deemed to have rights capable of being impaired. (Art 11.)

The Court of Justice has made clear that the impairment of a right cannot be excluded unless the court of law or other relevant body is in a position to take the view, without in any way making the burden of proof of causality fall on the applicant, that the contested decision would not have been different without the procedural defect invoked by that applicant.[27]

The provisions on access to justice must be interpreted in the light of, and having regard to, the objectives of the Aarhus Convention.[28] They cannot be interpreted restrictively.[29]

7.1.2.4 Significant effects in other Member States

Where a Member State is aware that a project is likely to have significant effects on the environment in another Member State, the Member State in whose territory

[23] Case C-72/12 *Gemeinde Altrip* ECLI:EU:C:2013:712, para 38.
[24] Case C-137/14 *Commission v Germany* ECLI:EU:C:2015:683, para 54.
[25] Ibid, paras 91–92.
[26] Case C-263/08 *Djurgården-Lilla Värtans Miljöskyddsförening* ECLI:EU:C:2009:631, para 45. In this case the Court found a requirement for NGOs to have at least 2,000 members to be incompatible with the Directive. Ibid, para 52.
[27] Case C-137/14 *Commission v Germany* (n 24), para 60.
[28] Case C-115/09 *Bund für Umwelt und Naturschutz Deutschland* ECLI:EU:C:2011:289, para 41.
[29] Case C-570/13 *Gruber* ECLI:EU:C:2015:231, para 40.

the project is intended to be carried out shall as soon as possible send to the affected Member State a description of the project, together with any available information on its possible transboundary impact, and information on the nature of the decision which may be taken. The same applies if a Member State likely to be significantly affected so requests. If the affected Member State indicates that it intends to participate in the environmental decision-making procedure it is to be provided with certain information, including the request for development consent. The information shall also be made available to the public concerned in the territory of the Member State likely to be significantly affected. The public concerned and the relevant authorities of that Member State shall then be given an opportunity, before development consent for the project is granted, to forward their opinion within a reasonable time to the competent authority in the Member State in whose territory the project is intended to be carried out. The Member States concerned shall enter into consultations regarding, inter alia, the potential transboundary effects of the project and the measures envisaged to reduce or eliminate these effects. (Art 7.)

7.1.2.5 Deciding on development consent

The information received from the developer as well as results of the consultations must be duly taken into account in the development consent procedure (Art 8).

In order to avoid decisions being made on dated information, the competent authority must be satisfied that the reasoned conclusion on the significant effects of the project on the environment is still up to date when taking a decision to grant development consent (Art 8a).

A decision to grant development consent shall incorporate at least the competent authority's reasoned conclusion on the significant effects of the project on the environment; any environmental conditions attached to the decision; a description of any features of the project and/or measures envisaged to avoid, prevent, or reduce and, if possible, offset significant adverse effects on the environment; and, where appropriate, monitoring measures. A decision to refuse development consent must state the main reasons for the refusal.

One of the Directive's few requirements that are substantive more than procedural is the obligation on Member States to ensure that the features of the project and/or measures envisaged to avoid, prevent, or reduce and, if possible, offset significant adverse effects on the environment are implemented by the developer. Member States must also determine procedures regarding the monitoring of significant adverse effects on the environment. (Art 8a.)

Competent authorities shall be required to perform their duties in an objective manner. Where the competent authority is also the developer, an appropriate separation between conflicting functions must be implemented. (Art 9a.)

The Directive also contains provisions on dissuasive penalties (Art 10a), on commercial and industrial confidentiality and safeguarding the public interest (Art 10), and on exchange of information between Member States and the Commission (Arts 12 and 13).

7.1.3 The SEA Directive

Since 2001, the EIA Directive has been supplemented by Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment,[30] generally referred to as the strategic environmental assessment (SEA) Directive. It is similar to the SEA Protocol to the Espoo Convention mentioned previously. Like the EIA Directive it is based on the EU's environmental competence and does not prevent Member States from taking more stringent measures.

The Directive aims to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development (Art 1). The Court of Justice has established that, given the Directive's objective, the provisions which delimit its scope, in particular those setting out the definitions of the measures envisaged by the Directive, must be interpreted broadly.[31]

7.1.3.1 When is an environmental assessment required?

The plans and programmes covered by the Directive are those which are: (a) subject to preparation and/or adoption by an authority at national, regional, or local level, or which are prepared by an authority for adoption, through a legislative procedure by parliament or government; and (b) required by legislative, regulatory, or administrative provisions (Art 2).

It is not necessary, for a plan or programme to be 'required', that its adoption is compulsory. It suffices that the plan's or programme's adoption is regulated by national legislative or regulatory provisions, which determine the competent authorities for adopting them and the procedure for preparing them.[32]

The Directive's requirements may either be integrated into existing procedures in Member States for the adoption of plans and programmes or be incorporated into procedures established to comply with the Directive (Art 4).

At the core of the Directive is the requirement to carry out an environmental assessment (EA) for plans and programmes which are likely to have significant environmental effects. An EA includes the preparation of an environmental report, the carrying out of consultations, the taking into account of the environmental report and the results of the consultations in decision-making, and the provision of information on the decision. The EA shall be carried out during the preparation of a plan or programme and before its adoption or submission to the legislative procedure. The Court of Justice has established that a procedure for the total or partial repeal of a plan may also require an EA.[33]

In some cases an obligation to carry out an EA follows directly from the Directive; in other cases it is for the Member States to determine the likely impact of the plan

[30] [2001] OJ L 197/30.
[31] Case C-567/10 *Inter-Environnement Bruxelles and Others* ECLI:EU:C:2012:159, para 37.
[32] Ibid, para 31. [33] Ibid, para 43.

or programme. An EA must be carried out for all plans and programmes which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning, or land use and which set the framework for future development consent of projects listed in Annexes I and II. The same applies to plans and programmes which, in view of the likely effect on sites, have been determined to require an EA pursuant to Articles 6 or 7 of the Habitats Directive (Directive 92/43/EEC). (Arts 2–3.)

Plans and programmes which determine the use of small areas at local level and minor modifications to plans and programmes which in themselves require an EA require an EA only where the Member States determine that they are likely to have significant environmental effects. Also with respect to other plans and programmes, which set the framework for future development consent of projects, the Member States must determine whether they are likely to have significant environmental effects.

Determining whether a plan or programme is likely to have significant environmental effects can be done either through case-by-case examination or by specifying types of plans and programmes or by combining both approaches. For this purpose Member States must take into account relevant criteria set out in Annex II, in order to ensure that plans and programmes with likely significant effects on the environment are covered by the Directive. The outcome of this determination, including the reasons for not requiring an environmental assessment when that is the case, is to be made available to the public.

The Court of Justice has made clear that an assessment of whether a plan or programme will require an EA pursuant to Articles 6 or 7 of the Habitats Directive is limited to the question of whether it can be excluded, on the basis of objective information, that that plan or project will have a significant effect on the site concerned. The same goes for areas referred to in Article 4(1) and (2) of the Birds Directive.[34]

In the case-by-case examination and in specifying types of plans and programmes the authorities likely to be concerned by the environmental effects of implementing plans and programmes by reason of their specific environmental responsibilities must be consulted.

Plans and programmes the sole purpose of which is to serve national defence or civil emergency, as well as financial or budget plans and programmes do not require an EA (Art 3).

An assessment carried out under the EIA Directive (Directive 2011/92/EU) does not dispense with the obligation to carry out an EA under the SEA Directive. However, if an assessment carried out under the EIA Directive were to comply with all the requirements of the SEA Directive there would be no obligation to carry out a new assessment pursuant to the latter Directive.[35]

[34] Case C-177/11 *Syllogos Ellinon Poleodomon kai Chorotakton* ECLI:EU:C:2012:378, para 23.
[35] Case C-295/10 *Valčiukienė and Others* ECLI:EU:C:2011:608, para 63.

Where a plan or programme has been adopted in breach of the obligation to carry out a prior EA, a court which has before it an action for annulment of such plan or programme is, in principle, obliged to take all the general or particular measures provided for by its national law in order to remedy the failure to carry out such an assessment, including the possible suspension or annulment of the contested plan or programme.[36]

7.1.3.2 The environmental assessment

Where an EA is required, an environmental report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described, and evaluated. The information to be given for this purpose is referred to in Annex I. Authorities which, by reason of their specific environmental responsibilities, are likely to be concerned by the environmental effects of implementing plans and programmes shall be consulted when deciding on the scope and level of detail of the information to be included in the report. (Art 5.)

The draft plan or programme and the environmental report shall be made available to the public and to the abovementioned authorities. These authorities and at least the public affected or likely to be affected by, or having an interest in, the decision-making subject to the Directive—including relevant non-governmental organisations, such as those promoting environmental protection and other organisations concerned—shall be given an early and effective opportunity within appropriate time frames to express their opinion on the draft plan or programme and the accompanying environmental report before the adoption of the plan or programme or its submission to the legislative procedure. (Art 6.)

The Directive also sets out rules for transboundary consultations which apply where a Member State considers that the implementation of a plan or programme being prepared in relation to its territory is likely to have significant effects on the environment in another Member State, or where a Member State likely to be significantly affected so requests (Art 7).

The environmental report and the opinions expressed in the consultations shall be taken into account during the preparation of the plan or programme and before its adoption or submission to the legislative procedure. The Directive does not require any specific outcome of the taking into account of the opinions expressed.

When a plan or programme is adopted, the authorities concerned, the public, and any Member State consulted must be informed. The Directive lists pieces of information that must be made available to those informed, including a statement summarising how environmental considerations have been integrated into the plan or programme and how the environmental report and the opinions expressed in the consultations have been taken into account, as well as the reasons for choosing

[36] Case C-41/11 *Inter-Environnement Wallonie and Terre wallonne* ECLI:EU:C:2012:103, para 63.

the plan or programme as adopted, in the light of the other reasonable alternatives dealt with. (Arts 8–9.)

The Member States are required to monitor the significant environmental effects of the implementation of plans and programmes in order, inter alia, to identify at an early stage unforeseen adverse effects, and to be able to undertake remedial action (Art 10).

The Directive also contains provisions on its relationship with other EU legislation and on information exchange between the Member States and the Commission (Arts 11–12).

7.2 Prevention of Major Industrial Accidents (the Seveso Directive)

In 1976 a major industrial accident in Seveso, Italy, resulted in the spread of toxic substances, including dioxin, over several km^2 and caused the death of thousands of animals and the evacuation of many hundred residents in the surrounding area. When the then EEC in 1982 adopted a directive concerned with the prevention of major accidents which might result from certain industrial activities, such as those in the ill-fated chemical plant in Seveso, it became known as the Seveso Directive.[37] A number of other accidents, often more severe than that in Seveso—including those in Bhopal in 1984 and in Schweizerhalle in 1986—prompted amendments of the Directive. It was eventually replaced by the so-called Seveso II Directive in 1996.[38] Subsequent accidents, such as the one in Enschede in 2000, prompted further revisions. In 2008 a wider review of the Directive was launched, the main purpose of which was to align Seveso II to new EU rules on classification, labelling, and packaging of dangerous substances. It concluded that overall the existing provisions were fit for purpose but that a number of smaller amendments would be appropriate in order to clarify and update certain provisions and to improve implementation and enforceability.[39] This led, in 2012, to the adoption of Seveso III, that is, Directive 2012/18/EU.[40]

The Directive, which has Article 192(1) TFEU as its legal basis, lays down rules for the prevention of major accidents involving dangerous substances and the limitation of their consequences for human health and the environment, with a view to ensuring a high level of protection throughout the Union in a consistent and

[37] Its formal name was Council Directive 82/501/EEC on the major-accident hazards of certain industrial activities [1982] OJ L230/1.

[38] Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances [1997] OJ L10/13.

[39] Proposal for a Directive of the European Parliament and of the Council on control of major-accident hazards involving dangerous substances COM(2010) 781 final, 2.

[40] Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC [2012] OJ L 197/1.

effective manner (Art 1). In doing so it also implements the UNECE Convention on Transboundary Effects of Industrial Accidents within EU law.[41]

The Directive applies to 'establishments', meaning the whole location under the control of an operator where dangerous substances are present in one or more installations, including common or related infrastructures or activities. The 'operator' is any natural or legal person who operates or controls an establishment or installation or, where provided for by national legislation, to whom the decisive economic or decision-making power over the technical functioning of the establishment or installation has been delegated. (Arts 2 and 3.)

All covered establishments are classified as either lower-tier establishments or upper-tier establishments according to Annex I and depending on the quantities of hazardous substances present at the establishment. Some activities and establishments are exempted from the scope of the Directive, including military establishments, hazards created by ionising radiation originating from substances, and the transport of dangerous substances and directly related intermediate temporary storage. (Arts 3–4.)

A substance covered by Annex I may be removed from the scope of the Directive if an assessment by the Commission shows that it is impossible in practice for it to cause a release of matter or energy that could create a major accident under both normal and abnormal conditions which can reasonably be foreseen (Art 4).

Operators shall be required to take, and to prove to a competent authority at any time that they have taken, all necessary measures to prevent major accidents and to limit their consequences for human health and the environment. They must also send a notification to the competent authority containing information on, inter alia, the quantity and physical form of the dangerous substance or substances concerned, the immediate environment of the establishment, and factors likely to cause a major accident or to aggravate the consequences thereof. Operators must furthermore draw up a document that sets out a major accident prevention policy (MAPP) and ensure that the policy is properly implemented. The MAPP shall be proportionate to the major accident hazards and be designed to ensure a high level of protection of human health and the environment. (Arts 7 and 8.)

Operators of upper-tier establishments shall produce a safety report containing at least the data and information listed in Annex II. The safety report shall demonstrate, inter alia, that major accident hazards and possible major accident scenarios have been identified and that the necessary measures have been taken to prevent such accidents and to limit their consequences for human health and the environment. (Art 10.)

In order to reduce the risk of so-called domino effects, the competent authority shall identify all establishments covered where the risk or consequences of a major accident may be increased because of the geographical position and the proximity of such establishments, and their inventories of dangerous substances. The identified establishments must exchange suitable information to enable them to take

[41] (Helsinki, 17 March 1992) 2105 UNTS 457.

account of the nature and extent of the overall hazard of a major accident in their MAPPs, safety management systems, safety reports, and internal emergency plans, as appropriate. (Art 9.)

Additional obligations apply to operators of upper-tier establishments, including to draw up an internal emergency plan for the measures to be taken inside the establishment and to provide the competent authority with the necessary information to enable it to draw up external emergency plans. The public concerned is to be given early opportunity to give its opinion on external emergency plans when they are being established or substantially modified. (Art 12.)

The competent authorities shall organise a system of inspections that are appropriate to the type of establishment concerned. All establishments are to be covered by an inspection plan which must be regularly reviewed and, where appropriate, updated. The competent authority shall communicate the conclusions of the inspection and all the necessary actions identified to the operator and ensure that the operator takes the necessary actions within a reasonable period of time. (Art 20)

The use or bringing into use of any establishment, installation, or storage facility where the measures taken by the operator for the prevention and mitigation of major accidents are seriously deficient shall be prohibited. Such prohibitions may also be imposed on operators who have not submitted the information required by the Directive within the specified period. (Art 19.)

The objectives of preventing major accidents and limiting the consequences of such accidents for human health and the environment are to be taken into account by the Member States in land-use policies or other relevant policies. This entails imposing controls on, inter alia, the siting of new establishments and new developments including transport routes, locations of public use, and residential areas in the vicinity of establishments, where the siting or developments may be the source of or increase the risk or consequences of a major accident. Land-use or other relevant policies must take account, inter alia, of the need, in the long term, to maintain appropriate safety distances between establishments covered and residential areas and buildings and areas of public use, and to protect areas of particular natural sensitivity or interest in the vicinity of establishments. (Art 13.)

The obligation to maintain appropriate distances does not amount to a prohibition on the siting of new buildings in built-up areas in which there are establishments covered by the Directive.[42]

Following a major accident, the operator shall be required to inform the competent authority as soon as practicable and to provide it with information on, inter alia, the circumstances of the accident and the dangerous substances involved. Following such an accident the competent authority shall ensure that any urgent, medium-term, and long-term measures which may prove necessary are taken and take appropriate action to ensure that the operator takes any necessary remedial measures. (Arts 16–17.)

[42] Case C-53/10 *Mücksch* ECLI:EU:C:2011:585, para 46.

The Directive includes provisions on information that must be made available to the public, including an explanation in simple terms of the activity or activities undertaken at the establishment and general information about how the public concerned will be warned, if necessary, as well as adequate information about the appropriate behaviour in the event of a major accident. With respect to upper-tier establishments additional information must be provided, including on the nature of the major accident hazards and their potential effects on human health and the environment.

There are also rather extensive provisions on public consultation and participation in decision-making according to which the public concerned is to be given an early opportunity to give its opinion on specific individual projects relating to planning for new establishments or significant modifications to establishments, when they are dealt with in the context of land-use policies or other relevant policies. A similar requirement applies when plans or programmes are being established relating to the same matters. (Arts 14–15.)

The Directive furthermore contains provisions on exchange of information between Member States and the Commission, on access to information and confidentiality, and on access to justice (Arts 21–23).

7.3 Ecolabelling

A voluntary Community ecolabel award scheme was first set up through a regulation in 1992.[43] By creating a scheme for awarding a label (the flower) to products that meet certain criteria, the Regulation aimed to provide consumers with better information on the environmental impact of products and to promote the design, production, marketing, and use of products with reduced environmental impacts during their entire life cycles. The national implementation of the Regulation soon revealed several problems and deficiencies affecting the scheme. This led, in 2000, to the adoption of a new regulation intended to increase the effectiveness and streamline the operation of the labelling scheme.[44] After less than ten years that was also replaced, this time by Regulation 66/2010 on the EU Ecolabel.[45] It is based on the equivalent of the current Article 192 TFEU, thereby forming part of EU environmental policy. Like before, a wish to increase the effectiveness and streamline the operation of the ecolabel scheme prompted the adoption of a new legal act. This time there was also a need to ensure coordination with the new Directive 2009/125/EC on ecodesign requirements for energy-related products.[46] The new Regulation extended the possibility of using the EU ecolabel to more product categories and added substituting hazardous substances

[43] Council Regulation (EEC) No 880/92 on a Community eco-label award scheme [1992] OJ L 99/1.

[44] Regulation (EC) No 1980/2000 of the European Parliament and of the Council on a revised Community eco-label award scheme [2000] OJ L 237/1.

[45] [2010] OJ L27/1.

[46] [2009] OJ L285/10. On this Directive, see section 11.8.

with safer onces as an additional aim of the scheme. By this time the EU ecolabel scheme had become part of the new EU sustainable consumption and production policy, aiming to reduce the negative impact of consumption and production on the environment, health, climate, and natural resources.[47]

The EU Ecolabel scheme applies to any goods or services, with the exception of medicinal products and medical devices, which are supplied for distribution, consumption, or use on the EU market, whether in return for payment or free of charge (Art 2).

The ecolabel may be awarded to products that meet certain criteria developed for specific product groups. These criteria are to be based on the environmental performance of the products, taking into account the latest strategic objectives of the EU in the field of the environment. They shall be determined on a scientific basis considering the whole life cycle of products. In determining such criteria, inter alia the following shall be considered: the most significant environmental impacts; the potential to reduce environmental impacts due to durability and reusability of products; and the net environmental balance between the environmental benefits and burdens, including health and safety aspects, at the various life stages of the products. Where appropriate, social and ethical aspects are also to be considered, for example by making reference to relevant ILO standards. According to the 2015 Circular Economy action plan, the Commission is to put increasing emphasis on circular economy aspects, such as reparability, durability, upgradability, and recyclability, in future product design requirements.[48]

With some exceptions, the ecolabel may not be awarded to goods containing substances or preparations/mixtures meeting the criteria for classification as toxic, hazardous to the environment, carcinogenic, mutagenic, or toxic for reproduction (CMR), in accordance with Regulation 1272/2008,[49] nor to goods containing substances that qualify for inclusion in the so-called 'Authorisation List' (ie Annex XIV) of REACH (ie Regulation 1907/2006). (Art 6.)

Each Member State must designate a body or bodies responsible for carrying out the tasks provided for in the Regulation ('competent body'). Through the Regulation a European Union Ecolabelling Board (EUEB), consisting of representatives of the competent bodies of all the Member States and of other interested parties, is also set up. Following consultation with the EUEB, the Commission, Member States, competent bodies, and other stakeholders may initiate and lead the development or revision of EU ecolabel criteria. Doing so is associated with significant costs and should be carried out in close cooperation with the Commission. Anyone leading the development of ecolabel criteria must make sure that draft criteria are developed in accordance with a procedure laid down in Annex I. The final criteria and the related

[47] Communication from the Commission on the Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan (16 July 2008) COM(2008) 397 final.

[48] Communication from the Commission—'Closing the loop—An EU action plan for the Circular Economy' COM(2015) 614 final, 4. On the action plan see further section 12.1.

[49] Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 [2008] OJ L 353/1.

assessment requirements for a product group are then adopted by a Commission decision in accordance with the regulatory procedure with scrutiny.[50] (Arts 4, 5, and 8.)

Product group criteria are usually valid for a period of three to five years. The criteria are reviewed prior to their expiration and may be revised. As of 2015 there were more than thirty product groups for which criteria have been adopted, including computers, detergents, textiles, and various kinds of paper.

Any producer, manufacturer, importer, service provider, wholesaler, or retailer ('operator') who wishes to use the EU ecolabel may apply to a competent body in the Member State where a product originates, or, in the case of products that originate outside the EU, to a competent body in any of the Member States in which the product is to be or has been placed on the market. Provided that the documentation is complete and the competent body has verified that the product complies with the relevant criteria and any assessment requirements, it shall assign a registration number to the product. The competent body shall ensure that the verification process is carried out in a consistent, neutral, and reliable manner by a party independent from the operator being verified based on international, European, or national standards. The competent body shall also conclude a contract with each operator covering the terms of use of the EU ecolabel. If the product criteria are subsequently revised, the contract must be renewed.

Only once the contract has been concluded may the operator place the ecolabel on the product. The ecolabel may be used on the products for which it has been awarded and on their associated promotional material. Any false or misleading advertising or use of any label or logo which leads to confusion with the EU ecolabel shall be prohibited. (Arts 3, 9, and 10.)

The Commission has established a catalogue of products which have been awarded the ecolabel.[51]

It should also be mentioned that rules on the labelling of products as organic, thereby indicating that specific environmental standards have been met in their production, have been laid down in Regulation (EC) No 834/2007 on organic production and labelling of organic products.[52]

7.4 The EU Eco-Management and Audit Scheme (EMAS)

A regulation allowing voluntary participation by companies in the industrial sector in a Community eco-management and audit scheme (EMAS) was first adopted

[50] On this procedure see Art 5a(1) to (4) and Art 7 of Council Decision 1999/468/EC laying down the procedures for the exercise of implementing powers conferred on the Commission [1999] OJ L 184/23, and recital 21 in the preamble of Regulation (EU) No 182/2011 of the European Parliament and of the Council laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers [2011] OJ L 55/13. For an example of such a Decision see, eg, Commission Decision 2014/350/EU establishing the ecological criteria for the award of the EU Ecolabel for textile products [2014] OJ L 174/45.

[51] See <http://ec.europa.eu/ecat/> (visited 10 January 2016).

[52] [2007] OJ L 189/1.

in 1993 in order to promote evaluation and improvement of the environmental performance of industrial activities and the provision of relevant information to the public.[53] In 2001 it was replaced by a new regulation which made EMAS available to all organisations having environmental impacts.[54] That was in turn replaced in 2009 by Regulation (EC) No 1221/2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS).[55] The amendments introduced through the new Regulation aimed at increasing the scheme's efficiency and its attractiveness for organisations, focusing particularly on the needs of small organisations, the institutional set-up, and the links to other policy instruments, including to so-called Green Public Procurement.[56]

The objective of EMAS is to promote continuous improvements in organisations' environmental performance, inter alia by organsiations' establishment and implementation of environmental management systems; the systematic, objective, and periodic evaluation of the performance of such systems; and the provision of information on environmental performance. EMAS is described as an important instrument of the sustainable consumption and production and sustainable industrial policy action plan.[57] (Art 1.)

In Article 2, definitions of many terms used in the Regulation are set out. That includes definitions of 'environmental performance', which means the measurable results of an organisation's management of its environmental aspects, and of 'environmental management system'. The latter is understood as the part of the overall management system that includes the organisational structure, planning activities, responsibilities, practices, procedures, processes, and resources for developing, implementing, achieving, reviewing, and maintaining the environmental policy and managing the environmental aspects. EMAS is open to 'organisations', a notion that is given a very broad definition.[58]

Chapter II of the Regulation describes how organisations, including those outside the EU, may be registered by a Competent Body in a Member State. Organisations wishing to be registered for the first time must, inter alia, carry out an environmental review of all environmental aspects of the organisation and then, in the light of the results of that review, develop and implement an environmental management system. They must also carry out an internal audit and prepare an environmental

[53] Council Regulation (EEC) No 1836/93 allowing voluntary participation by companies in the industrial sector in a Community eco-management and audit scheme [1993] OJ L 168/1.

[54] Regulation (EC) No 761/2001 of the European Parliament and of the Council allowing voluntary participation by organisations in a Community eco-management and audit scheme (EMAS) [2001] OJ L 114/1.

[55] [2009] OJ L 342/1.

[56] Proposal for a Regulation of the European Parliament and of the Council on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS), COM(2008) 402 final, 2 and 5. On 'Green Public Procurement' see <http://ec.europa.eu/environment/gpp/index_en.htm> (visited 13 January 2016).

[57] (16 July 2008) COM(2008) 397 final.

[58] 'Organisation' means a company, corporation, firm, enterprise, authority or institution, located inside or outside the Community, or part or combination thereof, whether incorporated or not, public or private, which has its own functions and administration. Art 2 p 21.

statement. The more precise requirements that apply to these activities are set out in Annexes. The initial environmental review, the environment management system, the audit procedure, and its implementation shall be verified by an accredited or licensed environmental verifier and the environmental statement shall be validated by that verifier. The organisations must also provide material or documentary evidence showing that the organisation complies with all applicable legal requirements relating to the environment. (Arts 3–5.)

EMAS-registered organisations and sites are listed in an online database hosted by the Commission (the EMAS Register).[59] As of mid-2014, more than 4,000 organisations and approximately 7,500 sites were EMAS-registered.[60]

The obligations of registered organisations can be found in Chapter III. Such organisations must, at least on a three-yearly basis, have the full environmental management system and audit programme and its implementation verified. They must also prepare an environmental statement and have that validated by an environmental verifier. In the intervening years the organisations shall carry out an internal audit of their environmental performance and compliance with applicable legal requirements relating to the environment. They must also prepare an updated environmental statement and have it validated by an environmental verifier. The environmental statements shall be made available to the public. The frequency may be slightly extended for small companies upon request. Registered organisations that plan to introduce substantial changes must carry out an environmental review of these changes, including their environmental aspects and impacts. (Arts 6–7.)

Registered organisations may use the EMAS logo, consisting of a symbol and the text 'EMAS' and 'Verified environmental management', as long as their registration is valid. The logo may be used on any environmental information published by a registered organisation, provided that it meets certain requirements, including having been validated as being accurate. The logo may not be used on products or their packaging or in a way that may create confusion with environmental product labels. Member States must put in place effective provisions against the use of the EMAS logo in violation of the Regulation. (Arts 10 and 40.)

Chapter IV sets out rules applicable to Competent Bodies, including their designation and the process for registration of organisations.

Chapter V deals with environmental verifiers whose task it is to assess whether an organisation's environmental review, environmental policy, management system, audit procedures, and their implementation comply with the requirements of the Regulation. The environmental verifier shall be an external third party, independent—in particular of the organisation's auditor or consultant—impartial, and objective in performing its activities. It shall ensure that it is free from any commercial, financial, or other pressures which might influence its judgement or

[59] See 'Search engine for EMAS registrations' at <http://ec.europa.eu/environment/emas/register/> (visited 10 January 2016).

[60] See 'About EMAS' at <http://ec.europa.eu/environment/emas/about/index_en.htm> (visited 10 January 2015).

endanger trust in its independence of judgement and integrity in relation to the verification activities. (Arts 18 and 20.)

The operation of accreditation and licensing bodies is regulated in Chapter VI, whereas Chapter VII sets out specific rules applicable to the Member States. Member States must, inter alia, ensure that organisations get access to information and assistance possibilities regarding legal requirements relating to the environment in the Member State. They shall also promote the EMAS scheme and provide information to the public about the objectives and principal components of EMAS.

Chapter VIII sets out obligations applicable to the Commission. Among these are to make publicly available a register of environmental verifiers and registered organisations and a database of best practices on EMAS. The Commission shall consider how registration under EMAS can be taken into account in the development of new legislation and revision of existing legislation, as well as how it can be used as a tool in the context of application and enforcement of legislation. The Chapter also provides for Member States to submit to the Commission a request for recognition of existing environmental management systems, or parts thereof, as complying with corresponding requirements of the EMAS Regulation. (Arts 42, 44, and 45.)

The Commission has adopted a user's guide setting out the steps needed to participate in EMAS.[61]

7.5 Access to Information, Public Participation, and Access to Justice

The legal development relating to access to information, public participation, and access to justice in environmental matters within the EU as well as in the Member States is profoundly influenced by the UNECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters ('Arhus Convention'),[62] to which the EU has been party since 2005.[63] As is evident from its name, the Convention comprises three parts, often referred to as 'pillars', relating to access to information ('first pillar'), public participation in decision-making ('second pillar'), and access to justice ('third pillar'), respectively. When approving the Convention the EU issued a declaration

[61] Commission Decision 2013/131/EU establishing the user's guide setting out the steps needed to participate in EMAS, under Regulation (EC) No 1221/2009 of the European Parliament and of the Council on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS) [2013] OJ L76/1.

[62] Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters ('Aarhus Convention') (Aarhus, 25 June 1998) 2161 UNTS 447. Interestingly, parts of the Convention are in turn strongly influenced by EC legal acts from the 1980s and early 1990s. P Oliver 'Access to Information and to Justice in EU Environmental Law: The Aarhus Convention' (2013) 36 *Fordham International Law Journal* 1423–70, 1426.

[63] Council Decision 2005/370/EC on the conclusion, on behalf of the European Community, of the Convention on access to information, public participation in decision-making and access to justice in environmental matters [2005] OJ L124/1.

regarding Article 9(3) of the Convention according to which existing EU law does not fully implement the procedures required by the Convention concerning access to justice as they relate to administrative and judicial procedures to challenge acts and omissions by private persons and public authorities other than the institutions of the EU. Instead the Member States will remain responsible for the performance of these obligations until the EU adopts provisions of EU law covering the implementation of those obligations.[64]

Also with respect to matters that do fall under the Union's responsibility, it has been criticised by the compliance committee of the Arhus Convention for failing to provide adequate access to justice, for example due to the far-reaching requirements that individuals must meet in order to have standing to challenge legal acts in front of the Court of Justice.[65] Issues regarding legal standing for individuals in front of the Court of Justice or the General Court were addressed in Chapter 5. As will be shown in the following, the extent to which the Aarhus Convention's requirements have been implemented in EU law differs between the three pillars. The obligations incumbent on the Member States and on the EU institutions, respectively, are addressed in separate legal acts. This is reflected in the structure of this chapter.

7.5.1 Access to environmental information in the Member States

A first directive on access to environmental information was adopted in 1990.[66] It was replaced in 2003 by Directive 2003/4/EC on public access to environmental information.[67] The aim was to expand the access granted under the previous directive, inter alia to make EU law consistent with the Aarhus Convention. The Directive, which is based on a previous article corresponding to the current Article 192(1) TFEU, has two objectives. One is to guarantee the right of access to environmental information held by or for public authorities and to set out the basic terms and conditions of, and practical arrangements for, its exercise. The second, less precise objective is to ensure that, as a matter of course, environmental information is progressively made available and disseminated to the public in order to achieve the widest possible systematic availability and dissemination to the public of environmental information. (Art 1.)

The Court of Justice has made clear that in adhering to the Aarhus Convention, the EU undertook to ensure, within the scope of EU law, a general principle of access to environmental information held by the public authorities and that when interpreting Directive 2003/4, account is to be taken of the wording and aim of the Convention.[68]

[64] Ibid, Annex.

[65] Findings and recommendations of the compliance committee with regard to communication ACCC/C/2008/32 (Part I) concerning compliance by the European Union adopted on 14 April 2011 (24 August 2011) ECE/MP.PP/C.1/2011/4/Add.1.

[66] Council Directive 90/313/EEC on the freedom of access to information on the environment [1990] OJ L 158/56.

[67] [2003] OJ L 41/26.

[68] Case C-524/09 *Ville de Lyon* ECLI:EU:C:2010:822, para 35; and C-279/12 *Fish Legal and Shirley* ECLI:EU:C:2013:853, para 37.

'Environmental information' is given a wide definition. It covers any information in written, visual, aural, electronic, or any other material form on, inter alia, the state of the elements of the environment and the interaction among these elements; factors, such as substances, energy, noise, radiation, or waste, including radioactive waste, emissions, discharges and other releases into the environment, affecting or likely to affect the elements of the environment; and measures, including administrative measures, such as policies, legislation, plans, programmes, environmental agreements, and activities affecting or likely to affect the mentioned elements and factors, as well as those designed to protect elements of the environment. It also covers reports on the implementation of environmental legislation and economic analyses and assumptions used within the framework of the measures and activities referred to above. (Art 2.) The Court of Justice has found it to include information submitted within the framework of a national procedure for the authorisation or the extension of the authorisation of a plant protection product.[69]

The Member States' public authorities[70] shall be required, in accordance with the provisions of the Directive, to make available environmental information held by or for them. It shall be made available to any applicant at his request and without his having to state an interest. The directive lays down timeframes within which requested information must be made available and specifies in which form an applicant has a right to access the information. Public authorities shall make all reasonable efforts to maintain environmental information held by or for them in forms or formats that are readily reproducible and accessible by electronic means. Such authorities shall also inform the public adequately of the rights they enjoy as a result of the Directive and provide information, guidance, and advice that enable members of the public to exercise these rights. (Art 3.)

The right to access environmental information is not without exceptions. Member States may provide for a request for such information to be refused in a number of listed situations. This applies, inter alia, if the request is manifestly unreasonable; if the request concerns material in the course of completion or unfinished documents or data; or if it concerns internal communications, taking into account the public interest served by disclosure. (Art 4.)

Member States may furthermore provide for a request to be refused if disclosure of the information would adversely affect any of a number of listed interests. Among these are the confidentiality of the proceedings of public authorities, where such confidentiality is provided for by law;[71] international relations, public security, or national defence; the course of justice, the ability of any person to receive a fair trial, or the ability of a public authority to conduct an enquiry of a criminal or disciplinary nature; and the confidentiality of commercial or industrial information under certain conditions. Access may also be refused if the protection of the

[69] Case C-266/09 *Stichting Natuur en Milieu and Others* ECLI:EU:C:2010:779, para 43.

[70] On the meaning of 'public authorities' see Art 2(2); Case C-524/09 *Ville de Lyon* (n 68); Case C-515/11 *Deutsche Umwelthilfe* ECLI:EU:C:2013:523; and Case C-279/12 *Fish Legal* (n 68).

[71] On the requirement that confidentiality must be provided for by law see C-204/09 *Flachglas Torgau* ECLI:EU:C:2012:71, para 65.

environment to which the information relates, such as the location of rare species, would be adversely affected. When weighing the public interests served by disclosure against the interests served by refusal to disclose, a number of the grounds for refusal may, according to the Court of Justice, be taken into account cumulatively.[72]

The grounds for refusal are to be interpreted in a restrictive way, taking into account for the particular case the public interest served by disclosure. In every particular case, the public interest served by disclosure shall be weighed against the interest served by the refusal.[73] Several of the grounds for refusal do not apply where the request relates to information on emissions into the environment.[74] (Art 4.)

A refusal to make available all or part of the information requested shall be notified to the applicant within specified time limits. The notification must state the reasons for the refusal and include information on the review procedure. (Art 4.)

Public authorities may make a charge for supplying any environmental information but such charge shall not exceed a reasonable amount[75] (Art 5).

Any applicant who considers that his request for information has been ignored, wrongfully refused, inadequately answered, or otherwise not dealt with in accordance with the pertinent provisions of the directive must have access to a procedure in which the acts or omissions of the public authority concerned can be reconsidered. Any such procedure shall be expeditious and either free of charge or inexpensive. An applicant shall also have access to a review procedure before a court of law or another independent and impartial body established by law, in which the acts or omissions of the public authority concerned can be reviewed and whose decisions may become final.[76] (Art 6.)

The directive also contains an obligation to organise environmental information with a view to its active and systematic dissemination to the public. Member States shall ensure that environmental information progressively becomes available in electronic databases which are easily accessible to the public. National and, where appropriate, regional or local reports on the state of the environment shall be published at regular intervals not exceeding four years. Such reports shall include information on the quality of, and pressures on, the environment. Member States must, so far as is within their power, ensure that any information that is compiled by them or on their behalf is up to date, accurate, and comparable. (Arts 7 and 8.)

It should also be pointed out in this context that rules on access to environmental information can be found in several other directives as well, including Directive 2001/18/EC on the deliberate release of GMOs[77] and Regulation (EC) No 1907/2006 (REACH).[78]

[72] Case C-71/10 *Office of Communications* ECLI:EU:C:2011:525, para 32.

[73] That balancing of the interests involved must be carried out in every particular case does not, however, prevent the use of general provisions to determine criteria to facilitate the comparative assessment of the interests involved. Case C-266/09 *Stichting Natuur* (n 69), paras 56–58.

[74] On this 'emissions rule', see Oliver, 'Access to Information and to Justice…' (n 62).

[75] On what may be included in the charge see Case C-71/14 *East Sussex County Council* ECLI:EU:C:2015:656.

[76] On the right to administrative and judicial review see ibid, paras 58–59 and the case law cited there.

[77] [2001] OJ L 106/1.

[78] [2006] OJ L 396/1.

7.5.2 Public participation and access to justice in the Member States

In order to implement the obligations of the Aarhus Convention regarding public participation and access to justice, the EU legislature has adopted Directive 2003/35/EC.[79] Being based on a legal basis corresponding to the current Article 192(1) TFEU, the Directive aims to 'contribute' to the implementation of the obligations arising under the Aarhus Convention, in particular by providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment, and by improving the public participation and providing for provisions on access to justice within the EIA Directive and what is now the IED (Directive 2011/92/EU). (Art 1.)

In line with its aims, the Directive has two main functions. One is to lay down rules on public participation in respect of the drawing up of certain plans and programmes. The other is to amend the EIA Directive (2011/92/EU) and the IPPC Directive (now IED, 2010/75/EU) to ensure that they are compatible with the provisions of the Aarhus Convention.[80] These amendments are dealt with in relation to the presentation of these two directives.[81]

As regards public participation with regard to certain plans and programmes, the Directive requires the Member States to ensure that the public is given early and effective opportunities to participate in the preparation and modification or review of the plans or programmes required to be drawn up under provisions listed in Annex I.[82] These include directives on different kinds of waste, air quality, and protection of waters against pollution caused by nitrates from agricultural sources. The 'public' is defined as one or more natural or legal persons and, in accordance with national legislation or practice, their associations, organisations, or groups. The public is, inter alia, to be informed about any proposals for such plans or programmes or for their modification or review, and to be entitled to express comments and opinions when all options are open before decisions on the plans and programmes are made. Due account shall be taken of the results of the public participation when the decisions are made. Exempted from this obligation are plans and programmes designed for the sole purpose of serving national defence or taken in case of civil emergencies, as well as those for

[79] Directive 2003/35/EC of the European Parliament and of the Council providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC—Statement by the Commission [2003] OJ L 156/17.

[80] Amendments were made to Council Directive 96/61/EC concerning integrated pollution prevention and control (IPPC) [1996] OJ L 257/26 the provisions of which were later integrated into Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions (integrated pollution prevention and control) [2010] OJ L 334/17.

[81] See sections 7.1 and 8.2, respectively. See also J Darpö 'Article 9.2 of the Aarhus Convention and EU Law. Some Remarks on CJEU's Case Law on Access to Justice in Environmental Decision-making' (2014) 11 *Journal of European Environmental and Planning Law* 367–91.

[82] Several of these directives have subsequently been codified or otherwise replaced by new legal acts. For this reason the names given in Annex I may not correspond to the current name of the relevant act.

which a public participation procedure is carried out under the SEA Directive (Directive 2001/42/EC) or the Water Framework Directive (Directive 2000/60/EC). (Art 2.)

In 2003 the Commission tabled a proposal for a Directive on access to justice in environmental matters.[83] The proposal aimed both at implementing the Aarhus convention as regards access to justice and also at eliminating shortcomings in the enforcement of environmental law by ensuring that representative associations seeking to protect the environment have access to administrative or judicial procedures in environmental matters. According to the Commission, practical experience showed that granting legal standing to environmental non-governmental organisations (NGOs) can enhance the implementation of environmental law.[84] However, the proposal has not met with sufficient support in the Council for it to be adopted.[85] As previously discussed, environmental NGOs are granted access to administrative or judicial procedures under the IED and the EIA Directive.

As a result of these circumstances, the Aarhus Convention is only partly implemented in EU law. As noted previously, this is reflected in the declaration regarding Article 9(3) of the Convention issued by the EU when approving the Convention.

However, since the EU is party to the Convention, its provisions form an integral part of the EU legal order. In areas where the EU has not exercised its powers and adopted provisions to implement the obligations which derive from the Convention it is for the courts of the Member States to determine, on the basis of national law, whether individuals could rely directly on the rules of the Convention in relevant cases or whether the courts must apply those rules of their own motion.[86]

In the much discussed *Lesoochranárske zoskupenie* (also known as the *Slovakian Bears* case), the Court of Justice found that the provisions of Article 9(3) of the Aarhus Convention lack direct effect since they do not contain any clear and precise obligation capable of directly regulating the legal position of individuals. Nonetheless, national courts are required

> to interpret, to the fullest extent possible, the procedural rules relating to the conditions to be met in order to bring administrative or judicial proceedings in accordance with the objectives of Article 9(3) of [the Aarhus] convention and the objective of effective judicial protection of the rights conferred by EU law, in order to enable an environmental protection organisation … to challenge before a court a decision taken following administrative proceedings liable to be contrary to EU environmental law.[87]

[83] Proposal for a Directive of the European Parliament and of the Council on access to justice in environmental matters (24 October 2003) COM(2003) 624 final.

[84] COM(2003) 624 final (n 83) 2–3.

[85] For a more detailed discussion of the proposal see J Jans and H H B Vedder *European Environmental Law After Lisbon* (4th edn, Europa Law Publishing, 2011) 376.

[86] Case C-240/09 *Lesoochranárske zoskupenie* ECLI:EU:C:2011:125, paras 30 and 32.

[87] Ibid, para 52.

7.5.3 Access to information, public participation, and access to justice regarding EU institutions and bodies

Regulation (EC) No 1367/2006 (the 'Aarhus Regulation') lays down rules for the application of the provisions of the Aarhus Convention in relation to institutions and bodies of the EU.[88] These rules are meant to guarantee the right of public access to environmental information received or produced by EU institutions or bodies and held by them; ensure that environmental information is progressively made available and disseminated to the public in order to achieve its widest possible systematic availability and dissemination; provide for public participation concerning plans and programmes relating to the environment; and guarantee access to justice in environmental matters at EU level under the specified conditions. (Art 1.)

The Regulation is based on a treaty provision corresponding to the current Article 192(1) TFEU. Core terms, such as 'environmental information' and 'the public', are defined in Article 2.

When an applicant requests access to environmental information held by an EU institution or body, Regulation (EC) No 1049/2001 regarding public access to European Parliament, Council, and Commission documents applies.[89] The Aarhus Regulation supplements that regulation by providing certain specific rules applicable to environmental information.

EU institutions and bodies shall organise the environmental information with a view to its active and systematic dissemination to the public. Insofar as is within their power, they shall ensure that any information that is compiled by them, or on their behalf, is up-to-date, accurate, and comparable. They shall also make the information progressively available in electronic databases that are easily accessible to the public. Information collected before the entry into force of the Regulation (ie before late 2006) need not be made available electronically unless it is already available in such form. Among the things that must be made available in databases or registers are reports on the state of the environment; data or summaries of data derived from the monitoring of activities affecting, or likely to affect, the environment; and environmental impact studies and risk assessments concerning environmental elements, or a reference to the place where such information can be requested or accessed. The Commission must also ensure that, at regular intervals not exceeding four years, a report on the state of the environment, including information on the quality of, and pressures on, the environment is published and disseminated. (Arts 4 and 5.)

[88] Regulation (EC) No 1367/2006 of the European Parliament and of the Council on the application of the provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Community institutions and bodies [2006] OJ L 264/13.

[89] Regulation (EC) No 1049/2001 of the European Parliament and of the Council regarding public access to European Parliament, Council and Commission documents [2001] OJ L145/43. On the correct interpretation of certain provisions of this Regulation as well as the possibility of relying on Art 4(1) and (4) of the Aarhus Convention in order to assess the legality of those provisions, see Case C-612/13 P *ClientEarth v Commission* ECLI:EU:C:2015:486.

As far as grounds for refusing access to documents with environmental information are concerned, Article 4 of Regulation 1049/2001 applies. However, the grounds for refusal shall be interpreted in a restrictive way, taking into account the public interest served by disclosure and whether the information requested relates to emissions into the environment. When the 2001 regulation requires the existence of an overriding public interest in disclosure such an interest shall, with some exceptions, be deemed to exist where the information requested relates to emissions into the environment.

In addition to the exceptions set out in Article 4 of Regulation 1049/2001, access to environmental information may also be refused where disclosure of the information would adversely affect the protection of the environment to which the information relates, such as the breeding sites of rare species. (Art 6.)

The regulation includes specific rules relating to plans or programmes relating to the environment. EU institutions and bodies shall provide early and effective opportunities for the public to participate during the preparation, modification, or review of such plans or programmes when all options are still open. The public affected or likely to be affected by, or having an interest in, such a plan or programme is to be informed of, inter alia, the draft proposal, where available, and of practical arrangements for participation. When deciding on the plan or programme, due account must be taken of the outcome of the public participation. (Art 9.)

Non-governmental organisations which meet certain criteria—including being an independent non-profit-making legal person that has existed for more than two years and has the primary stated objective of promoting environmental protection in the context of environmental law—are entitled to make a request for internal review to the EU institution or body that has adopted an administrative act under environmental law or, in case of an alleged administrative omission, should have adopted such an act. Such a request must be made within six weeks after the administrative act was adopted, notified, or published, whichever is the latest, or, in the case of an alleged omission, six weeks after the date when the administrative act was required. All requests are to be considered unless they are clearly unsubstantiated. The institution or body must state its reasons in a written reply no later than 12 weeks after receipt of the request. That time may be extended to eighteen weeks.

An NGO which has made a request for internal review may also institute proceedings before the Court of Justice in accordance with the relevant provisions of the Treaty. (Arts 10–12.)

The term 'administrative act' covers only measures of individual scope under environmental law, taken by an EU institution or body, and having legally binding and external effects (Art 2). According to the General Court, the limitation of NGOs' right to make a request for internal review only of measures of individual scope is incompatible with Article 9(3) of the Aarhus Convention, according to which members of the public who meet relevant criteria laid down in national law shall have access to administrative or judicial procedures to challenge acts and omissions by private persons and public authorities which contravene provisions of its national law relating to the environment. However, this finding was later

overturned by the Court of Justice on the ground that, by adopting Regulation No 1367/2006, the EU did not intend to implement the obligations which derive from Article 9(3) of the Aarhus Convention with respect to national administrative or judicial procedures. The Aarhus Convention could thus not be relied on in order to assess the legality of the Regulation.[90] On the preconditions for relying on an international agreement in support of an action for annulment of an act of secondary EU law, see section 4.7.

7.6 Infrastructure for Spatial Information in the European Community (INSPIRE)

Provisions on the making available of environmental information can also be found in Directive 2007/2/EC establishing an Infrastructure for Spatial Information in the European Community (INSPIRE).[91] The regulation is premised on the fact that spatial information is needed for the formulation and implementation of the Union's environmental policy and other EU policies, which must integrate environmental protection requirements. Solving problems regarding, inter alia, availability, quality, and sharing of spatial information requires measures that address exchange, sharing, access, and use of interoperable spatial data and spatial data services across the various levels of public authority and across different sectors.[92] Against this backdrop the Directive lays down general rules aimed at the establishment of INSPIRE, for the purposes of EU environmental policies and policies or activities which may have an impact on the environment. INSPIRE is to build upon infrastructures for spatial information established and operated by the Member States. (Art 1.)

By 'infrastructure for spatial information' is meant metadata, spatial data sets, and spatial data services; network services and technologies; agreements on sharing, access, and use; and coordination and monitoring mechanisms, processes, and procedures established, operated, or made available in accordance with the Directive. 'Spatial data' is any data with a direct or indirect reference to a specific location or geographical area. In order for spatial data sets to be covered by the Directive they must fulfil certain conditions, including being held by or on behalf of a public authority or certain third parties, being in electronic format, and relating to one or more of the themes listed in Annex I, II, or III. The Directive does not require collection of new spatial data. (Arts 3 and 4.)

The Directive's core requirement is that the Member States shall ensure that metadata are created for the spatial data sets and services corresponding to the themes listed in Annexes I, II, and III, and that those metadata are kept up to

[90] Joined Cases C-404/12 P and C-405/12 P *Council v Stichting Natuur en Milieu* ECLI:EU:C:2015:5, paras 52–53.

[91] [2007] OJ L108/1.

[92] First and third recitals of the preamble.

date.[93] Among the themes listed are geographical grid systems, transport networks, protected sites, physical and biological cover of the earth's surface, land use, habitats and biotopes, industrial production sites, and energy resources.

It is not required to generate new spatial data sets and services but only to make available existing data. The metadata shall also include information on, inter alia, any conditions applying to access to, and use of, spatial data sets and services and, where applicable, corresponding fees, as well as on the quality and validity of spatial data sets. (Art 5.)

The Regulation also includes provisions on interoperability of spatial data sets and services (Chapter III), network services (Chapter IV), data-sharing (Chapter V), and coordinating and complementary measures (Chapter VI).

The Directive has an article corresponding to the current Article 192(1) TFEU as its legal basis.

7.7 European Pollutant Release and Transfer Register

In this context mention should also be made of Regulation (EC) No 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register.[94] The Regulation establishes an integrated pollutant release and transfer register at EU level ('the European PRTR') in the form of a publicly accessible electronic database and lays down rules for its functioning, in order to implement the UNECE Protocol on Pollutant Release and Transfer Registers.[95] It also aims to facilitate public participation in environmental decision-making and contribute to the prevention and reduction of pollution of the environment. (Art 1.)

The register shall include information on releases of pollutants, off-site transfers of waste, and pollutants in waste water, as specified in the regulation. It shall also include information on releases of pollutants from diffuse sources, where available. The Regulation obliges operators which meet certain criteria to report annually on release and transfers of pollutants to their respective competent national authority.

Member States shall provide all the data received to the Commission which, assisted by the European Environment Agency, shall incorporate the information into the European PRTR. The information can be searched using criteria such as type of pollutant, geographical location, and source facility.

[93] Requirements for the creation and maintenance of metadata for spatial data sets, spatial data set series and spatial data services are set out in Commission Regulation (EC) No 1205/2008 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards metadata [2008] OJ L 326/12.

[94] [2006] OJ L 33/1.

[95] Protocol on Pollutant Release and Transfer Registers to the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Kiev, 21 May 2003) UN Doc MP.PP/2003/1.

The Commission has described the Member States' implementation of the Regulation as 'a reasonable success story'.[96]

7.8 Environmental Liability

When Directive 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage (the environmental liability directive, or 'ELD') was adopted in 2004,[97] it was a compromise that resulted from lengthy negotiations. The Commission's initial proposal included, among other things, a secondary obligation for Member States to take necessary preventive measures in cases where there is an imminent threat of environmental damage.[98] However, that was seen as contrary to the principle that the polluter should pay and before the Directive was adopted it was replaced with an authorisation—rather than an obligation—for national authorities to take preventive action when the operator fails to do so.

The elaboration of the ELD was prompted by the many contaminated sites in the EU, with associated health risks, and by the loss of biodiversity throughout the Union. The prevention and remedying of environmental damage is to be implemented through the furtherance of the polluter-pays principle.[99] The core of the ELD is the principle that an operator whose activity has caused environmental damage or the imminent threat of such damage is to be held financially liable. Operators shall thereby be induced to adopt measures and develop practices to minimise the risks of environmental damage so that their exposure to financial liabilities is reduced.[100]

Unsurprisingly, liability is not seen as a suitable instrument for dealing with pollution of a widespread, diffuse character, where it is impossible to link the negative environmental effects with acts or failure to act of certain individual actors.[101] However, as will be discussed presently, it can be permissible to rely on presumptions in order to establish a causal link between an operator and certain environmental damage, thereby making it easier to pinpoint a responsible operator.

In line with this, the ELD aims to establish a framework of environmental liability based on the polluter-pays principle, to prevent and remedy environmental damage (Art 1).

[96] Report from the Commission on progress in implementing Regulation (EC) 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register (E-PRTR) (5 March 2013) COM(2013) 111 final.

[97] [2004] OJ L 143/56.

[98] See Art 4 of Proposal for a Directive of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage, COM(2002) 17 final.

[99] On this principle, see section 2.4.8.

[100] Preambular paras 1 and 2.

[101] Preambular para 13.

7.8.1 Environmental damage and applicability of the ELD

The notion of 'environmental damage', which is pivotal to the ELD, is subject to a lengthy definition in Article 2(1). It includes, somewhat simplified, the following three kinds of damage: damage to protected species and natural habitats; damage to water; and land contamination.

'Damage to protected species and natural habitats' comprises any damage that has significant adverse effects on reaching or maintaining favourable conservation status of such habitats or species. The significance of such effects is to be assessed with reference to a baseline condition and taking account of certain criteria set out in Annex I. It appears to be a common misunderstanding that the ELD only applies to the most severe cases of biodiversity damage.[102] That view is not consistent with the criteria set out in the Annex or, for that matter, with the ordinary meaning of the word 'significant'.

'Protected species and natural habitats' are, somewhat simplified, species mentioned or listed in the Birds Directive (now Directive 79/409/EEC) or listed in the Habitats Directive (92/43/EEC), as well as listed natural habitats and the breeding sites or resting places of listed species.[103] Individual Member States may decide to include additional habitats or species, which the Member State designates for equivalent purposes as those laid down in these two Directives. Adverse effects resulting from an act which was expressly authorised by the relevant authorities are in many cases exempted.

'Water damage' is, with some exceptions,[104] any damage that significantly adversely affects the ecological, chemical and/or quantitative status and/or ecological potential, as defined in the Water Framework Directive (2000/60/EC), of the waters concerned.

'Land damage' is any land contamination that creates a significant risk of human health being adversely affected as a result of the direct or indirect introduction, in, on, or under land, of substances, preparations, organisms, or micro-organisms. It is the only form of damage which presupposes a risk to human health. Damage as such is understood as a measurable adverse change in a natural resource or measurable impairment of a natural resource service and may occur directly or indirectly. (Art 2.)

However, the ELD is not applicable to all cases of damage that fall under the notion of environmental damage as just defined. It is only environmental damage caused by one of the occupational activities listed in Annex III, and any imminent threat of such damage occurring by reason of any of those activities, that is covered without restrictions. In these cases strict liability applies. Damage caused by occupational activities other than those listed in Annex III is only covered if the damage

[102] BIO Intelligence Service, Implementation challenges and obstacles of the Environmental Liability Directive, Final report prepared for European Commission, 2013, 12.

[103] For the exact definition see Art 2 point 3.

[104] Adverse effects where Art 4(7) of the water framework directive (2000/60/EC) applies are exempted from the definition of water damage.

has been caused to protected species and natural habitats. In these cases it is also required that the operator[105] has been at fault or negligent; it is thus not a strict liability. The same goes for any imminent threat of such damage occurring by reason of any of those activities. It is important to note that in all cases it is only damage caused by occupational activities that is covered.[106] (Art 3.)

An important feature of the ELD is that it is not concerned with injury to persons, damage to private property, or economic loss. These types of damage are all left to the Member States to regulate.

Certain kinds of environmental damage are exempted from the scope of the ELD even when they fall under the above definitions. That applies, inter alia, to environmental damage or an imminent threat of such damage caused by an act of armed conflict or by a natural phenomenon of exceptional, inevitable, and irresistible character. The ELD does also not apply to environmental damage or to any imminent threat of such damage arising from an incident in respect of which liability or compensation falls within the scope of any of the international conventions listed in Annex IV provided that they are in force in the Member State concerned. The five conventions listed in the Annex relate to liability for oil pollution damage or to damage caused in connection with carriage of dangerous goods.

Exemptions also apply with respect to nuclear risks or environmental damage or imminent threat of such damage caused by the activities covered by the EURATOM Treaty or caused by an incident or activity in respect of which liability or compensation falls within the scope of any of the international instruments listed in Annex V. These are all instruments that deal with liability for damage caused by nuclear activities or material. Also exempted is damage caused by national defence activities. (Art 4.)

With respect to environmental damage or an imminent threat of such damage caused by pollution of a diffuse character, the ELD only applies where it is possible to establish a causal link between the damage and the activities of individual operators (Art 4). The Court of Justice has pointed out that since the ELD does not specify how such a causal link is to be established, the Member States have a broad discretion in this regard.[107] The Court has also accepted the application of a presumption of a causal link between pollution found and the activities of certain operators due to the fact that their installations are located close to the pollution. However, in accordance with the polluter-pays principle, such a causal link may only be presumed where the competent authority has plausible evidence capable

[105] An 'operator' is, for the purpose of the Directive, any natural or legal, private or public person, who operates or controls the occupational activity or, where this is provided for in national legislation, to whom decisive economic power over the technical functioning of such an activity has been delegated, including the holder of a permit or authorisation for such an activity or the person registering or notifying such an activity (Art 2).

[106] An 'occupational activity' is any activity carried out in the course of an economic activity, a business or an undertaking, irrespectively of its private or public, profit or non-profit character (Art 2).

[107] Case C-378/08 *Raffinerie Méditerranée (ERG) and Others* ECLI:EU:C:2010:126, para 55.

of justifying its presumption. The fact that the operator's installation is located close to the pollution found together with a correlation between the pollutants identified and the substances used by the operator in question can constitute such evidence.[108]

There are also temporal limitations to the ELD's applicability. It does not apply to damage caused by an emission, event, or incident that took place before 30 April 2007, that is, the date by which the ELD was to be transposed by the Member States. Excluded is also damage caused by an emission, event, or incident which took place after that date but which derives from a specific activity that took place and finished before that date.[109] If more than thirty years have passed since the emission, event, or incident that resulted in the damage, that damage is also not covered. (Art 17.)

7.8.2 Obligations on operators and authorities

Where there is an imminent threat of environmental damage occurring, the operator shall, without delay, take the necessary measures to prevent or minimise that damage. If the imminent threat is not dispelled by the preventive measures taken by the operator, the latter must inform the competent authority of the situation. The authority may also at any time require the operator to provide information on any imminent threat of environmental damage or in suspected cases of such an imminent threat. The authority shall require that preventive measures be taken by the operator, and only if the operator cannot be identified, fails to comply with its obligations, or is not required to bear the costs under the ELD may the competent authority take these measures itself. As mentioned previously, the ELD does not require of national authorities that they take measures themselves; they are merely authorised to do so. (Art 5.)

In practice, it is not uncommon that the establishment of whether there is an imminent threat of environmental damage is a scientifically complex and time-consuming operation. This can make it hard for operators, and even for competent authorities, to know when the ELD is applicable and hence what their obligations are.[110]

Where environmental damage has occurred the operator must, without delay, inform the competent authority and take all practicable steps to immediately control, contain, remove, or otherwise manage the relevant contaminants and/or any other damage factors. It must also put forward proposals for the remedial measures it considers appropriate. The measures must be approved by the competent authority in accordance with Annex II, which sets out a common framework to be followed in order to choose the most appropriate measures to ensure the remedying of environmental damage. However, the competent authority has the right, at any time, to require the operator to take the necessary remedial measures

[108] Ibid, paras 56–57. [109] See further Case C-378/08 *ERG* (n 107), para 41.
[110] Implementation challenges (n 102) 11.

or instruct the operator how the measures are to be taken. It may also alter environmental remedial measures previously decided without an initial proposal from the operator. But, unless the urgency of the environmental situation requires immediate action on the part of the competent authority, it may not determine remedial measures without first giving the operator the opportunity to be heard. The persons on whose land those measures are to be carried out must also be invited to submit their observations, and those observations must be taken into account by the authority.[111] The competent authority may require the relevant operator to carry out its own assessment and to supply any information and data necessary. Only if the operator cannot be identified, fails to comply with its relevant obligations, or is not required to bear the costs under the ELD may the competent authority take the remedial measures itself, as a means of last resort. As with preventive measures, the authority is never obliged by the ELD to take remedial measures; only to require the operator to take such measures when possible. (Arts 6–7 and 11.)

Before a national authority decides to impose remedial measures on operators it must first carry out a prior investigation into the origin of the pollution found. In doing so it has discretion as to the procedures, means to be employed, and length of the investigation. Irrespective of the nature of the damage, the authority is also required to establish, in accordance with national rules on evidence, a causal link between the activities of the operators at whom the remedial measures are directed and the pollution.[112]

Any decision which imposes preventive or remedial measures must state the exact grounds on which it is based and the operator concerned shall be informed of the legal remedies available. (Art 11.)

The ELD does not specify how a competent authority may oblige an operator to take the measures it has decided. In a case concerning exceptionally extensive pollution, the Court of Justice found it justified to make the use of the land of the operators concerned subject to the requirement that they implement remedial measures in relation to sites adjacent to that land which were in need of rehabilitation. This would be done in order to prevent other industrial activity, which might aggravate the damage or hinder measures aimed at remedying it, being carried out in the vicinity of those sites. This was acceptable even though the operators' own land was not affected by the remedial measures because it had already been decontaminated or had never been polluted. Such a measure could be justified by the objective of preventing deterioration of the environmental situation in an area in which remedial environmental measures are implemented, or, pursuant to the precautionary principle, by the objective of preventing the occurrence or resurgence of further environmental damage to such land.[113]

[111] Joined Cases C-379/08 and C-380/08 *Raffinerie Mediterranee (ERG) and ENI* ECLI:EU:C:2010:127, paras 51, 56, and 67.

[112] Case C-378/08 *ERG* (n 107), para 65.

[113] Joined Cases C-379/08 and C-380/08 *ERG and ENI* (n 111), paras 84–85.

Where environmental damage affects or is likely to affect several Member States, those Member States shall cooperate with a view to ensuring that preventive action and, where necessary, remedial action is taken (Art 15).

7.8.3 Cost recovery

If a competent authority has incurred costs in relation to preventive or remedial actions taken under the ELD it shall, in accordance with the polluter-pays principle, recover those costs from the responsible operator. However, an operator shall not be required to bear the cost of preventive or remedial actions when it can prove that the environmental damage or imminent threat of such damage was caused by a third party and occurred despite the fact that appropriate safety measures were in place, or resulted from compliance with a compulsory order or instruction emanating from a public authority. The latter exception only applies if the order or instruction in question was not consequent upon an emission or incident caused by the operator's own activities.

A Member State may also allow the operator not to bear the cost of remedial actions taken pursuant to the ELD in some other cases where the operator demonstrates that it was not at fault or negligent. This possibility applies in cases where the environmental damage was caused either by an emission or event expressly authorised by, and fully in accordance with the conditions of, an authorisation given under applicable national laws and regulations which implement the EU legislative measures specified in Annex III, or an emission or activity which the operator demonstrates was not considered likely to cause environmental damage according to the state of scientific and technical knowledge at the time when the emission was released or the activity took place. (Art 8.)

Cost recovery proceedings against an operator or a third party who has caused damage or the imminent threat of damage in relation to any measures taken in pursuance of the ELD must be initiated within five years from the date on which those measures were completed or the liable operator, or third party, was identified—whichever is the later (Art 9).

7.8.4 Request for action and more protective measures

The ELD includes a right to request a competent authority to take action in relation to environmental damage or an imminent threat of such damage. More specifically, any natural or legal persons who are affected or likely to be affected by environmental damage or who have a sufficient interest in environmental decision-making relating to such damage shall have the right to submit relevant observations relating to instances of, or an imminent threat of, such damage and must be entitled to request the competent authority to take action under the Directive. The same goes for anyone alleging the impairment of a right, where administrative procedural law of a Member State requires this as a precondition. The interest

of any non-governmental organisation promoting environmental protection and meeting any requirements under national law shall be deemed sufficient. Such organisations shall also, where relevant, be deemed to have rights capable of being impaired. A person who has requested the competent authority to take action in accordance with relevant provisions of the ELD shall also have access to a court or other independent and impartial public body competent to review the procedural and substantive legality of the decisions, acts, or failure to act of the competent authority. (Arts 12 and 13.)

A right for the Member States to take more protective measures than those prescribed by the ELD follows already from the fact that the ELD is based on an article corresponding to the current Article 192(1) TFEU. However, the scope of this right is elaborated in the Directive by giving as examples of permissible more stringent provisions the identification of additional activities to be subject to the prevention and remediation requirements of the ELD and the identification of additional responsible parties. (Art 16.)

The Court of Justice has had reason to stress that where no causal link can be established between the environmental damage and the activity of the operator, the situation falls to be governed by national law. The mere fact that liability may be extended by Member States to additional parties does not create an obligation on Member States, in cases where it is impossible to identify the polluter of a plot of land or to have that person adopt remedial measures, to require the owner of the land to adopt preventive and remedial measures.[114]

Only four Member States met the deadline of 30 April 2007 for transposing the ELD. Also thereafter the transposition of the Directive remained slow, which led to infringement procedures being initiated against twenty-three Member States, seven of which were eventually brought to the Court of Justice.[115] An analysis of the implementation of the ELD prepared for the Commission found that rather than creating a level playing field, the Directive has resulted in a patchwork of national systems for preventing and remedying environment damage.[116] This is due for example to the imprecise language used in the ELD, the existence of optional provisions, and the application of national law concepts including the standard of liability, the level of causation, and secondary liability.[117]

An indication of the huge differences between Member States in how the ELD is interpreted and how it interacts with the domestic civil liability system is the number of cases in which the Directive has been applied. That figure varies between different Member States from none to hundreds.[118]

[114] Case C-534/13 *Fipa Group and Others* ECLI:EU:C:2015:140, para 63.

[115] Report from the Commission Under Article 14(2) of Directive 2004/35/CE on the environmental liability with regard to the prevention and remedying of environmental damage (12 October 2010) COM(2010) 581 final.

[116] Implementation challenges (n 102) 7.

[117] Ibid, 9–10.

[118] Ibid, 12.

Further Reading

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L Bergkamp and B Goldsmith (eds) *The EU Environmental Liability Directive: A Commentary* (OUP, 2013)

S Cassotta *Environmental Damage Liability Problems in a Multilevel Context: The Case of the Environmental Liability Directive* (Kluwer Law International, 2012)

J Darpö 'Article 9.2 of the Aarhus Convention and EU Law. Some Remarks on CJEU's Case Law on Access to Justice in Environmental Decision-making' (2014) 11 *Journal of European Environmental and Planning Law* 367–91

S Marsden and T Koivurova (eds) *Transboundary Environmental Impact Assessment in the European Union: The Espoo Convention and its Kiev Protocol on Strategic Environmental Assessment* (Routledge, 2011)

P Oliver 'Access to Information and to Justice in EU Environmental Law: The Aarhus Convention' (2013) 36 *Fordham International Law Journal* 1423–70

F Testa and others 'EMAS and ISO 14001: The Differences in Effectively Improving Environmental Performance' (2014) 68 *Journal of Cleaner Production* 165–73

8

Industrial Emissions

Facts and figures

In 2012, industry accounted for 85 per cent of emissions of sulphur dioxide (SO_2), 40 per cent of emissions of nitrogen oxides (NOX), and 50 per cent of greenhouse gas emissions in EEA-33 countries.

The damage costs associated with air pollution released by the 14,000 most polluting facilities in Europe are estimated to be at least EUR 329–1,053 billion in the five-year period 2008–2012.

20+ year outlook: Industrial emissions are expected to decrease further, but harm to the environment and human health remains considerable.

(EEA: The European environment—state and outlook 2015)

On average, 0.40 per cent of GDP was spent on environmental protection by industry in the EU-28 in 2013.

(Eurostat: Energy, transport and environment indicators 2015)

8.1 Introduction

Despite much discussion about 'the post-industrial society' or the need to re-industrialise Europe, large-scale industrial and related activities remain an important part of many Member States' economy and fundamentally affect the environment in the Union. However, it is also true that the environmental impact of industrial activities in the EU overall has decreased, partly as a result of the implementation of more effective abatement technologies and other measures for preventing or reducing pollution and partly because of restructuring and a shift of polluting industries from Europe to other parts of the world. Nonetheless, industrial activities are still a major source of pollutants and the regulation of industrial emissions, broadly construed, remains a centrepiece of EU environmental policy.

The first integrated approach to industrial pollution—that is, addressing pollution to air, water, and soil in one regulatory structure—was adopted in 1996 through Directive 96/61/EC concerning integrated pollution prevention and control (IPPC).[1] The EC then already had a general framework requiring authorisation

[1] Council Directive 96/61/EC concerning integrated pollution prevention and control [1996] OJ L 257/26.

EU Environmental Law and Policy. David Langlet and Said Mahmoudi. Published 2016 by Oxford University Press.

of industrial installations causing air pollution, as well as an authorisation requirement for the discharge of certain dangerous substances into the aquatic environment.[2] But there was no comparable legislation aimed at preventing or minimising emissions into soil and the different approaches to controlling emissions into different media were deemed to encourage the shifting of pollution between environmental media rather than protecting the environment as a whole.[3] The IPPC Directive therefore aimed to achieve integrated prevention and control of pollution arising from a significant number of listed industrial activities.

Following significant amendments, not least to adapt the Directive to the EU emission allowance trading scheme (EU ETS) set up by Directive 2003/87/EC,[4] the IPPC Directive was codified in 2008 as Directive 2008/1/EC.[5] However, as early as 2007 the Commission had tabled a proposal for revising and recasting the IPPC Directive and six sectoral Directives relating to the environmental impacts of industrial activities into a single legal act.[6]

This move was prompted primarily by the identification of shortcomings in the existing legislation leading to unsatisfactory implementation and difficulties in enforcement. This was problematic not only for the attainment of environmental objectives but also because of the distorting impact on competition caused by big differences in environmental standards and unnecessary administrative burdens. In addition to the merging of seven legal acts into one, the proposal included, inter alia, clarification and strengthening of the concept of best available techniques; revision of the minimum emission limit values for large combustion plants; the introduction of provisions on inspection and environmental improvements; and simplification of certain provisions on permitting, monitoring, and reporting to cut administrative burdens.[7] Based on this proposal, a new Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control) (IED) was adopted in 2010.

8.2 The Industrial Emissions Directive (IED)

The IED, which is based on Article 192(1) TFEU, comprises eighty-four articles and eight substantive Annexes. It lays down rules on integrated prevention and control of pollution arising from industrial activities and rules designed to prevent or, where that is not practicable, to reduce emissions into air, water, and land and

[2] Council Directive 84/360/EEC on the combating of air pollution from industrial plants [1984] OJ L 188/20 and Council Directive 76/464/EEC on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community [1976] OJ L 129/23, respectively.

[3] Preambular paras 4–7.

[4] On the emission trading scheme see section 11.2.

[5] Directive 2008/1/EC of the European Parliament and of the Council concerning integrated pollution prevention and control (Codified version) [2008] OJ L 24/8.

[6] Proposal for a Directive of the European Parliament and of the Council on industrial emissions (integrated pollution prevention and control) (Recast) (21 December 2007) COM(2007) 844 final.

[7] Ibid, 5.

to prevent the generation of waste, in order to achieve a high level of protection of the environment taken as a whole. By 'pollution' is meant the direct or indirect introduction, as a result of human activity, of substances, vibrations, heat, or noise into air, water, or land which may be harmful to human health or the quality of the environment, result in damage to material property, or impair or interfere with amenities and other legitimate uses of the environment.

Ensuring a high level of protection of the environment as a whole is a daunting task, considering the complexity of many environmental problems and the abatement measures that may be employed.[8] It is, for example, not unusual for the abatement of one source of pollution to result in an increase in other polluting activity, such as the generation of additional energy needed to operate scrubbers. It often also necessitates value judgements on things such as how to balance a small risk for large damage against a larger risk for more modest harm.

With the exception of research and development activities and the testing of new products and processes, the IED applies to all industrial activities giving rise to pollution referred to in Chapters II to VI. (Arts 1–3.)

The Directive is composed of seven chapters. Chapter I contains common provisions applying to all industrial activities covered by the IED. Chapter II covers the activities set out in Annex I, that is, essentially the same as previously covered by the IPPC Directive. Chapters III to VI contain requirements for large combustion plants, waste incineration plants, solvents installations, and titanium dioxide installations, respectively. Chapter VII deals with competent authorities, reporting, committee, penalties, and final provisions.

The main substantive part of Chapter I is dedicated to provisions on permits, applicable to all the industrial activities covered by the IED.

Member States must ensure that no installation or combustion plant, waste incineration plant, or waste co-incineration plant, as deemed in the Directive, is operated without a permit. However, with respect to installations and activities using organic solvents, Member States may instead opt for a registration procedure.

A permit may cover two or more installations or parts of installations operated by the same operator on the same site if the Member State so decides.[9] It may also cover several parts of an installation operated by different operators. By 'operator' is understood

> any natural or legal person who operates or controls in whole or in part the installation or plant, or, where this is provided for in national law, to whom decisive economic power over the technical functioning of the installation or plant has been delegated. (Art 3)

[8] On whether truly integrated protection is even possible, see F Oosterhuis and M Peeters 'Limits to Integration in Pollution Prevention and Control' in M Peeters and R Uylenburg (eds) *EU Environmental Legislation. Legal Perspectives on Regulatory Strategies* (Edward Elgar, 2014) 91–115, 107.

[9] An 'installation' is a stationary technical unit within which one or more activities listed in Annex I or in Part 1 of Annex VII of the IED are carried out, as well as any other directly associated activities on the same site which have a technical connection with the listed activities and which could have an effect on emissions and pollution. Art 3.

Where more than one competent authority or more than one operator is involved or more than one permit is granted, the conditions of, and the procedures for the granting of, the permit shall be fully coordinated in order to guarantee an effective integrated approach by all authorities. (Arts 3–5.)

Without affecting the obligation to hold a permit, requirements for certain categories of installations or plants may be laid down in the form of general binding rules.[10] The permit must then include a reference to these rules[11] (Art 6).

This requirement is likely to cause problems in Member States who implement the so-called BATREF conclusions (discussed later in this chapter) through general binding rules in order to escape the need to regularly review the individual permits. Including a reference to the general binding rules may require the permits to be reviewed anyway and thus undercut some of the administrative efficiency expected to be gained from using general rules.

Member States must take the necessary measures to ensure that the permit conditions are complied with. If there is a breach of the permit conditions the operator shall be required immediately to inform the competent authority and take the measures necessary to ensure that compliance is restored within the shortest possible time. If the breach poses an immediate danger to human health or threatens to cause an immediate significant adverse effect upon the environment, the operation of the installation or plant or relevant part thereof shall be suspended until compliance is restored.

In the event of any incident or accident significantly affecting the environment, operators must be required to immediately inform the competent authority and take measures to limit the environmental consequences and to prevent further possible incidents or accidents. (Arts 7 and 8.)

With respect to emissions of a greenhouse gas covered by the EU ETS, the permit for such installations shall not include an emission limit value (discussed later in this chapter) for direct emissions of that gas, unless necessary to ensure that no significant local pollution is caused[12] (Art 9). Whether this really prevents the Member States from imposing emission limits is debatable since the IED is based on Article 192 TFEU and even provides, in the preamble, 'greenhouse gas emission requirements' as an example of more stringent protective measures which it does not prevent the Member States from taking.[13] However, such national measures could easily fail to constitute more protective measures since they may undermine the objective of the EU ETS and in fact only lead to a redistribution

[10] By 'general binding rules' is meant emission limit values or other conditions, at least at sector level, that are adopted with the intention of being used directly to set permit conditions. Art 3.

[11] Whereas the English version of the text ('the permit may simply include') could possibly give the impression that such a reference is voluntary, a comparison with other language versions makes it obvious that such a reference is required. See eg the German 'so genügt es', the Dutch 'volstaat het', and the Swedish 'så räcker det'.

[12] The covered installations and gases are listed in Annex I to the ETS Directive (Dir 2003/87/EC).

[13] Preambular para 10. On the right to take 'more stringent protective measures' with respect to directives based on Art 192 TFEU, see section 4.2.3.

of emissions while not resulting in a reduction below the EU-wide cap set by the EU ETS.[14]

For activities covered by the EU ETS, Member States may choose not to impose requirements relating to energy efficiency in respect of combustion units or other units emitting carbon dioxide on the site (Art 9).

8.2.1 Annex I activities

The provisions in Chapter II apply to the activities set out in Annex I and, where applicable, reaching the capacity thresholds set out there. The activities are divided into the following categories: energy industries, production and processing of metals, mineral industry, chemical industry, waste management, and other activities. The last category comprises, for example, industrial production of paper or cardboard and intensive rearing of poultry or pigs. These are largely the same activities previously covered by the IPPC Directive.

Much of Chapter 2, and even large parts of the rest of the IED, may be viewed as elaborations of, or ways to make operational, the 'general principles governing the basic obligations of the operator' set out in Article 11. According to this Article Member States shall ensure that installations are operated in accordance with eight principles (a–h), namely: (a) that all the appropriate preventive measures are taken against pollution; (b) that the best available techniques (BAT) are applied; (c) that no significant pollution is caused; (d) that the generation of waste is prevented in accordance with the waste framework directive (Directive 2008/98/EC, FDW); (e) that, where waste is generated, it is, in order of priority and in accordance with the FDW, prepared for re-use, recycled, recovered, or, where that is technically and economically impossible, disposed of while avoiding or reducing any impact on the environment; (f) that energy is used efficiently; (g) that the necessary measures are taken to prevent accidents and limit their consequences; and (h) that the necessary measures are taken upon definitive cessation of activities to avoid any risk of pollution and return the site of operation to the satisfactory state as defined in accordance with IED Article 22.

While some of these principles, notably those concerning the handling of waste, are primarily about ensuring the effective application of existing EU law in specific cases, others, such as the BAT requirement and that regarding no significant pollution, establish important substantive obligations. Despite these principles providing the substantive backbone of the IED and the IPPC before that, there is a paucity of case law spelling out their more precise meaning.[15]

[14] On the EU-wide cap, see section 11.2.1. On the relationship between the IED and the EU ETS, see Oosterhuis and Peeters, 'Limits to Integration in Pollution Prevention and Control' (n 8) 100 et seq.

[15] Most of the case-law pertaining to the IED/IPPC is made up of infringement cases concerning fairly evident cases of insufficient or faulty implementation.

8.2.2 BAT and emission limit values

One of the principles, namely the BAT requirement, is subject to a far more extensive definition than the others, and also involves an elaborate procedure for determining its substantive content in relation to specific activities. According to the basic definition, BAT is

> the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing the basis for emission limit values[16] and other permit conditions designed to prevent and, where that is not practicable, to reduce emissions and the impact on the environment as a whole. (Art 3)

It is further specified that 'techniques' includes both the technology used and the way in which the installation is designed, built, maintained, operated, and decommissioned.

To be considered 'available' techniques must be

> developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator. (Art 3)

A technique qualifies as 'best' when it is the most effective in achieving a high general level of protection of the environment as a whole (Art 3).

If there is to be a high level of protection of the environment and if a level playing field for industrial installations is to be upheld in the Union, there is a clear need for a common view on what constitutes BAT. The method for achieving EU-wide BAT standards is the elaboration of 'BAT reference documents' (BREFs). The drawing up, review, and, where necessary, update of BREFs is based on an exchange of information between the Commission, Member States, the industries concerned, and non-governmental organisations promoting environmental protection.[17] This exchange of information (the 'Sevilla Process'), which is coordinated by the European IPPC Bureau at the EU Joint Research Centre in Seville, addresses: (a) the performance of installations and techniques in terms of emissions and the associated reference conditions, consumption and nature of raw materials, water consumption, use of energy, and generation of waste; (b) the techniques used, associated monitoring, cross-media effects, economic and technical viability, and developments therein; and (c) the BAT and emerging techniques[18] identified after considering the above issues.

[16] 'Emission limit value' (ELV) is the mass, expressed in terms of certain specific parameters, concentrations, and/or levels of an emission, which may not be exceeded during one or more periods of time. Art 3.

[17] On the process of drawing up and revising BREFs and the representation of different interests in this process, see B Lange *Implementing EU Pollution Control: Law and Integration* (Cambridge University Press, 2008) and M Lee *EU Environmental Law, Governance and Decision-Making* (2nd edn, Hart Publishing, 2014) Chap 5.

[18] An 'emerging technique' is a novel technique for an industrial activity that, if commercially developed, could provide either a higher general level of protection of the environment or at least the same level of protection of the environment and higher cost savings than existing BAT. Art 3.

There is also a forum composed of representatives of Member States, the industries concerned, and non-governmental organisations promoting environmental protection whose opinion the Commission shall obtain on, inter alia, guidance on the collection of data and on the drawing up of BREFs.[19] The Commission shall take into account the opinion of the forum on the proposed content of the BREFs. (Art 13.)

BREFs may either focus on issues related to particular industrial activities, so-called 'vertical' BREFs, or deal with cross-sectoral issues, such as monitoring or energy efficiency, in which case they are referred to as 'horizontal' BREFs. All BREFs are available on the Internet.[20]

The parts of a BREF laying down the conclusions on BAT, their description, information to assess their applicability, the emission levels associated with the BAT, associated monitoring, associated consumption levels, and, where appropriate, relevant site remediation measures are set out in so-called 'BAT conclusions'.

BAT conclusions are adopted by the Commission as Implementing Decisions in accordance with the examination procedure.[21] In so doing it is assisted by a committee composed of Member State representatives ('the IED Art 75 Committee').

As briefly noted previously, significant shortcomings were identified in the implementation of BAT under the IPPC Directive, including many permits not being based on BAT without any clear justification. This was attributed partly to the unclear role of the BREFs and to the large degree of flexibility left for Member State authorities to deviate from BAT in the permitting process.[22] To address this problem the IED now requires that BAT conclusions be used as the reference for setting the permit conditions for all installations covered by Chapter 2.[23] But it does not prevent national authorities from setting stricter permit conditions than those achievable by the use of BAT as described in the BAT conclusions. (Arts 13 and 14.)

Permits for Annex I activities must include emission limit values (ELVs)—that is, the mass, concentration, and/or level of an emission, which may not be exceeded during one or more periods of time—for the polluting substances listed in Annex II. Among these are, with respect to air, sulphur dioxide, carbon monoxide, volatile organic compounds, dust, chlorine, and fluorine; and, with respect to water, organohalogen and organotin compounds, biocides and plant protection products, substances which contribute to eutrophication, and those which have an unfavourable influence on the oxygen balance. However, the ELVs may be

[19] Commission Decision of 16 May 2011 establishing a forum for the exchange of information pursuant to Article 13 of the Directive 2010/75/EU on industrial emissions [2011] OJ C 146/3.

[20] See <http://eippcb.jrc.ec.europa.eu/reference/> (visited 15 January 2016).

[21] See as an example 2012/135/EU: Commission Implementing Decision establishing the best available techniques (BAT) conclusions under Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions for iron and steel production [2012] OJ L 70/63.

[22] COM(2007) 844 final (n 6) 9.

[23] Until BAT conclusions have been adopted according to the above-described procedure, the conclusions on BAT from BAT reference documents adopted by the Commission before the entry into force of the IED apply, with some exceptions, as BAT conclusions for the purposes of Chapter II IED. Art 13.

supplemented or replaced by equivalent parameters or technical measures ensuring an equivalent level of environmental protection.

ELVs and equivalent parameters or technical measures shall be based on BAT, without prescribing the use of any technique or specific technology. They shall ensure that, under normal operating conditions, emissions do not exceed the emission levels associated with the BAT.[24] However, where an assessment shows that the achievement of such emission levels would lead to disproportionately higher costs compared to the environmental benefits due to either the geographical location, the local environmental conditions, or the technical characteristics of the installation concerned, the competent authority may set less strict ELVs. Such ELVs may not, however, exceed the ELVs for specific activities, including large combustion plants and waste incineration and co-incineration plants, set out in Annexes to the IED.

The competent authority must also ensure that no significant pollution is caused and that a high level of protection of the environment as a whole is achieved.

Temporary derogations from the requirements relating to ELVs and to the application of BAT and the taking of all the appropriate preventive measures against pollution may, under certain conditions, be granted for the testing and use of emerging techniques for up to nine months. (Arts 3, 14, and 15.)

Where an environmental quality standard (EQS) requires stricter conditions than those achievable by the use of the BAT, additional measures shall be included in the permit (Art 18).

8.2.3 Permits

The IED contains relatively detailed requirements for permit applications. In addition to such rather obvious things as a description of the installation, its activities, and sources of emissions, such applications also must include, inter alia, a description of the nature and quantities of foreseeable emissions from the installation into each medium as well as identification of significant effects of the emissions on the environment; measures for the prevention, preparation for re-use, recycling, and recovery of waste generated by the installation; the proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the installation; and measures planned to monitor emissions into the environment. In addition, it must describe further measures planned to comply with the general principles of the basic obligations of the operator and the main alternatives to the proposed technology, techniques, and measures studied by the applicant in outline.

All this must also be summarised in a non-technical manner. As will be discussed presently, an application must also, when relevant, include information on the state of soil and groundwater contamination by relevant hazardous substances, that is, a so-called baseline report. (Art 12.)

[24] 'Emission levels associated with BAT' are the range of emission levels obtained under normal operating conditions using a BAT or a combination of BATs, as described in BAT conclusions. Art 3.

No substantial change—that is, a change in the nature or functioning, or an extension, of an installation or plant, which may have significant negative effects on human health or the environment—to an Annex I activity may be made without a permit granted in accordance with the IED (Arts 3 and 20).

When a permit is issued it must include all measures necessary for compliance with the general principles and with applicable EQS, that is, Articles 11 and 18. There are also more specific requirements that permits must meet. Among them are that they must include ELVs for polluting substances listed in Annex II, and for other polluting substances, which are likely to be emitted from the installation concerned in significant quantities;[25] appropriate requirements ensuring protection of the soil and groundwater and measures concerning the monitoring and management of waste generated by the installation; suitable emission monitoring;[26] measures relating to conditions other than normal operating conditions such as start-up and shut-down operations, leaks, malfunctions, momentary stoppages, and definitive cessation of operations; and requirements concerning the periodic monitoring of soil and groundwater in relation to relevant hazardous substances likely to be found on site.[27] (Art 14.)

Permit conditions must be periodically reconsidered by the competent authority and, where necessary to ensure compliance with the Directive, updated.

Within four years of publication of BAT conclusions relating to the main activity of an installation, all the permit conditions for the installation concerned must be reconsidered and, if necessary, updated to ensure compliance with the Directive, in particular the provisions on ELVs. While it is new BAT conclusions relating to the main activity of an installation that trigger the obligation to reconsider the permit, that reconsideration shall also take into account all new or updated BAT conclusions applicable to the installation that have been adopted since the permit was granted or last reconsidered. In this way, 'horizontal' BAT conclusions as well as those relating to other than the main activity also affect the content of permits.

If an installation is not covered by any of the BAT conclusions, the permit conditions shall be reconsidered and, if necessary, updated where developments in BAT allow for significant reduction of emissions.

There is also a general obligation to reconsider and, where necessary, update permit conditions in certain situations. These are when the pollution caused by the installation is of such significance that the existing ELVs of the permit need to be revised or new such values need to be included in the permit; when the operational safety requires other techniques to be used; and where it is necessary to comply with a new or revised EQS. (Art 21.)

If a Member State adopts general binding rules for Annex I activities, it must ensure an integrated approach and a high level of environmental protection

[25] As noted, ELVs may be supplemented or replaced by equivalent parameters or technical measures ensuring an equivalent level of environmental protection.

[26] These shall, where applicable, be based on the conclusions on monitoring as described in the BAT conclusions. Art 16.

[27] On the frequency of the periodic monitoring see Art 16.

equivalent to that achievable with individual permit conditions. Such rules shall be based on BAT, without prescribing the use of any technique or specific technology, and must be updated to take into account developments in BAT (Art 17).

8.2.4 Closure and remediation

The provisions relating to site closure and remediation are a novelty in the IED. They were included to remedy an unsatisfactory vagueness regarding responsibility for negative impacts on the quality of soil and groundwater.[28] To enable operators to be held responsible for such impacts, the IED introduces two linked requirements. One is that operators must prepare and submit a baseline report before starting operation of an installation or before a permit for an installation is updated for the first time after 7 January 2013. This applies to activities which involve the use, production, or release of relevant hazardous substances that may contaminate the soil and groundwater at the site of the installation. The report must contain information on soil and groundwater measurements that reflect the state at the time the report is drawn up. It should thereby permit a quantified comparison between the state of the site described in the report and the state of the site upon definitive cessation of activities, in order to ascertain whether a significant increase in pollution of soil or groundwater has taken place. Guidance on the content of the baseline report is to be established by the Commission.

The second part of the obligation, which applies upon definitive cessation of the activities, is to assess the state of soil and groundwater contamination by relevant hazardous substances used, produced, or released by the installation. Where the installation has caused significant pollution of soil or groundwater by relevant hazardous substances compared to the state established in the baseline report, the operator shall be required by the permit to take the necessary measures to address that pollution so as to return the site to the state described in the report. The technical feasibility of such measures may be taken into account. If, however, the contamination of soil and groundwater at the site poses a significant risk to human health or the environment as a result of the permitted activities carried out by the operator before the permit for the installation is updated for the first time after 7 January 2013 then the operator shall be required to take the necessary actions so that the site, taking into account its current or approved future use, ceases to pose such a risk. (Art 22.)

8.2.5 Inspections and public participation

Installations must be covered by an environmental inspection plan at national, regional, or local level which is regularly reviewed and, where appropriate, updated. Based on these plans the competent authority shall regularly draw up programmes for routine environmental inspections, including the frequency of site visits for different types of installations. The period between two site visits shall be based on

[28] COM(2007) 844 final (n 6) 10.

a systematic appraisal of the environmental risks of the installations concerned. It may in any case not exceed one year for installations posing the highest risks and three years for those posing the lowest risks. Non-routine inspections shall be carried out as soon as possible to investigate, inter alia, serious environmental complaints, and serious environmental accidents and occurrences of non-compliance. Following each site visit, the competent authority shall prepare a report, which must be notified to the operator concerned and be made publicly available. The competent authority shall ensure that the operator takes all the necessary actions identified in the report within a reasonable period. (Art 23.)

Since amendments were made in 2003 to make the then IPPC Directive compatible with the Aarhus Convention, the Directive has rather elaborate provisions on access to information and public participation intended to implement that Convention in relevant parts.[29]

The public concerned must be given early and effective opportunities to participate, inter alia, in the granting of permits for new installations and for substantial changes and in the granting or updating of a permit for an installation where the setting of less strict emission limit values is proposed. To that end the public concerned must have all of the relevant information from the stage of the administrative procedure at first instance, before a first decision has been adopted, to the extent that that information is available on the date of that stage of the procedure.[30] The procedure that applies to such participation is set out in Annex IV.

When a decision on granting, reconsideration, or updating of a permit has been taken, certain information must be made available to the public, including the content of the decision, the reasons on which it is based, the results of the consultations held before the decision was taken, and an explanation of how they were taken into account and how the permit conditions have been determined in relation to BAT and associated emission levels.

Although the Court of Justice has held that the public concerned by an authorisation procedure under the IED must, in principle, have access to all information relevant to that procedure, certain restrictions on the right to access to information may follow from Article 4 of Directive 2003/4/EC on public access to environmental information (see further section 7.5.1). Member States may, inter alia, provide for a request for information to be refused if disclosure of the information would adversely affect the confidentiality of commercial or industrial information. However, access cannot on that ground be denied to a decision by which a public authority authorises the location of an installation falling within the scope of the IED.[31]

As regards access to justice, the Member States shall ensure that, in accordance with the relevant national legal system, members of the public concerned have

[29] See Directive 2003/35/EC of the European Parliament and of the Council providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC—Statement by the Commission [2003] OJ L 156/17.

[30] Case C-416/10 *Križan and Others* EU:C:2013:8, para 88.

[31] Ibid, paras 78 and 82.

access to a review procedure before a court of law or another independent and impartial body established by law to challenge the substantive or procedural legality of decisions, acts, or omissions when they either have a sufficient interest or, where administrative procedural law of a Member State requires this as a precondition, they maintain the impairment of a right. To this end, any non-governmental organisation promoting environmental protection and meeting any requirements under national law shall be deemed to have a sufficient interest and, when relevant, to have rights capable of being impaired.

It is for Member States to determine at what stage the decisions, acts, or omissions may be challenged. What constitutes a sufficient interest and an impairment of a right shall be determined by Member States, consistently with the objective of giving the public concerned wide access to justice. (Art 25.)

Member States may require an applicant to exhaust all administrative review procedures before being authorised to bring legal proceedings. However, restrictions on the pleas in law which may be raised in support of legal proceedings have been found impermissible by the Court of Justice.[32]

Members of the public concerned must be able to ask a court or competent body to order interim measures such as temporarily to suspend the application of a challenged permit pending the final decision.[33]

As regards the effects on developers of challenges brought against the granting of permits, the Court of Justice has found that a decision which annuls a permit granted in infringement of the provisions of the IED is not capable, in itself, of constituting an unjustified interference with the developer's right to property enshrined in Article 17 of the Charter of Fundamental Rights of the European Union.[34]

8.2.6 Special provisions on certain activities

Chapter III lays down special provisions applicable, with some exceptions, to combustion plants, the total rated thermal input of which is equal to or greater than 50 MW, irrespective of the type of fuel used.[35]

Waste gases from combustion plants shall be discharged in a controlled way by means of a stack, the height of which is calculated in such a way as to safeguard human health and the environment. (Arts 28–30.)

Permits for combustion plants which were granted a permit before 7 January 2013 must include conditions ensuring that emissions into air do not exceed the ELVs set out in Part 1 of Annex V. Plants granted a permit after that date are subject to the partly stricter ELVs in Part 2 of the same annex.

Specific rules apply to combustion plants firing indigenous solid fuel—that is, a naturally occurring solid fuel fired in a combustion plant specifically designed for

[32] Case C-137/14 *Commission v Germany* ECLI:EU:C:2015:683, para 76.
[33] Case C-416/10 *Križan* (n 30), para 110. [34] Ibid, para 116.
[35] Where the waste gases of two or more separate combustion plants are discharged through a common stack, the combination formed by such plants shall be considered as a single combustion plant for the purpose of calculating the total rated thermal input. Art 29.

that fuel and extracted locally—which cannot comply with the ELVs for sulphur dioxide. Specific rules also apply to the setting of ELVs for multi-fuel firing combustion plants. (Arts 3, 31, and 40.)

Exemptions from the ELVs or the rates of desulphurisation may, provided that certain conditions are met, be applied with respect to plants covered by a transitional national plan (until 30 June 2020), plants subject to a limited lifetime derogation (until 31 December 2023),[36] plants being part of a small isolated system (until 31 December 2019), and district heating plants with a total rated thermal input not exceeding 200 MW (until 31 December 2022) (Arts 32–35).

Operators of all new combustion plants with a rated electrical output of 300 MW or more must assess whether it is technically and economically feasible to retrofit the plant for carbon dioxide (CO_2) capture. In so doing they should consider the availability of suitable geological storage sites and the feasibility of transporting the CO_2 to such sites. If the competent authority finds CO_2 capture to be feasible, suitable space on the installation site for the equipment necessary to capture and compress CO_2 shall be set aside. (Art 36.)

Chapter IV includes provisions on waste incineration plants and waste co-incineration plants which incinerate or co-incinerate solid or liquid waste. If waste co-incineration takes place in such a way that the main purpose of the plant is not the generation of energy or production of material products but rather the thermal treatment of waste, the plant is regarded as a waste incineration plant.[37] However, the incineration of some kinds of waste, including vegetable waste from agriculture and forestry, is exempted from Chapter IV. Permits must specify which types of waste may be treated in the plant concerned. (Arts 42 and 45.)

Waste gases from waste incineration plants and waste co-incineration plants shall be discharged by means of a stack the height of which is calculated in such a way as to safeguard human health and the environment. Emissions into air from such plants may not exceed the ELVs set out in Parts 3 and 4 of Annex VI or determined in accordance with Part 4 of that Annex. Specific requirements apply to incineration of hazardous waste and untreated mixed municipal waste.

Discharges to the aquatic environment of waste water resulting from the cleaning of waste gases shall be limited as far as practicable and the concentrations of polluting substances shall not exceed the ELVs set out in Part 5 of Annex VI (Art 46).

Residues shall be minimised in their amount and harmfulness. They shall be recycled, where appropriate, directly in the plant or outside (Art 53).

Waste incineration plants and waste co-incineration plants must be designed, equipped, built, and operated in such a way that the gas resulting from the (co-) incineration of waste is raised to a temperature of at least 850°C. Heat generated by such plants shall be recovered as far as practicable. (Art 50.)

[36] In order to qualify for a limited life time derogation the operator of the combustion plant must undertake not to operate the plant for more than 17,500 operating hours, starting from 1 Jan 2016 and ending no later than 31 Dec 2023.

[37] For definitions of 'waste incineration plant' and 'waste co-incineration plant' see Art 3.

The chapter also includes further provisions on monitoring of emissions, operating conditions, and delivery and reception of waste.

Chapter V on installations and activities using organic solvents applies to activities listed in Part 1 of Annex VII and, where applicable, reaching the consumption thresholds set out in Part 2 of that Annex.

A substitution requirement applies according to which substances or mixtures which, because of their content of volatile organic compounds (VOCs)[38] classified as carcinogens, mutagens, or toxic to reproduction, are assigned or need to carry certain hazard statements, must be replaced, as far as possible, by less harmful substances or mixtures within the shortest possible time. (Arts 56 and 58.)

Each installation shall be made to comply with either of two standards. Either the emission of VOCs shall not exceed the ELVs in waste gases and the fugitive ELVs, or the total ELVs, and other requirements laid down in Parts 2 and 3 of Annex VII; or the installation shall comply with the requirements of the reduction scheme set out in Part 5 of Annex VII and thereby achieve an emission reduction equivalent to that achieved through the application of the mentioned ELVs. Exemptions from the first standard may be granted by the competent authority for an individual installation where the operator demonstrates that the ELV for fugitive emissions is not technically and economically feasible. However, BAT must still be applied and no significant risks to human health or the environment may be expected. (Art 59.)

There are also provisions on, inter alia, reporting on compliance, exchange of information on substitution of organic solvents, and access to information.

Chapter VI sets out special provisions applying to installations producing titanium dioxide. This short chapter includes a prohibition on the disposal of certain kinds of waste into any water body, sea, or ocean; ELVs for emissions from installations into water and air; and some specification of monitoring requirements.

8.2.7 Final provisions

Chapter VII contains provisions on, inter alia, reporting by Member States, amendments of annexes, and the adoption of delegated acts. There are also rather extensive transitional provisions and specific dates for the transposition of certain parts of the IED. But since all the relevant dates have now passed, these are of mostly historic interest and the Directive is applicable to its full extent.

Member States must determine effective, proportionate, and dissuasive penalties applicable to infringements of the national provisions that implement the Directive (Art 79).

The Commission has been authorised to adapt some of the technical provisions in the annexes to scientific and technical progress by means of delegated acts. This includes provisions on emission monitoring and assessment of compliance with ELVs for combustion plants and waste (co-)incineration plants. However, this

[38] Definitions of 'organic compound' and 'volatile organic compound' can be found in Art 3.

delegation of power may be revoked by the European Parliament or by the Council, who may also object to adopted delegated acts. (Arts 74, 76–78.)

Member States shall ensure that information is made available to the Commission on the implementation of the IED; on representative data on emissions and other forms of pollution; on ELVs; on the application of BAT, in particular on the granting of exemptions; and on progress made concerning the development and application of emerging techniques. Based on this data the Commission shall, by 7 January 2016, and every three years thereafter, publish a report reviewing the implementation of the Directive. It shall include an assessment of the need for Union action through the establishment or updating of Union-wide minimum requirements for ELVs and for rules on monitoring and compliance for activities within the scope of the BAT conclusions adopted during the previous three-year period. (Arts 72–73.)

Further Reading

M Doppelhammer 'More Difficult than Finding the Way round Chinatown? The IPPC Directive and Its Implementation' (2000) 9 *European Energy and Environmental Law Review* 199–206

B Lange *Implementing EU Pollution Control: Law and Integration* (Cambridge University Press, 2008)

B Lange 'The EU Directive on Industrial Emissions: Squaring the Circle of Integrated, Harmonised and Ambitious Technology Standards' (2011) 13 *Environmental Law Review* 199–204

M Lee *EU Environmental Law, Governance and Decision-Making* (2nd edn, Hart Publishing, 2014) Chap 5

F Oosterhuis and M Peeters 'Limits to Integration in Pollution Prevention and Control' in M Peeters and R Uylenburg (eds) *EU Environmental Legislation. Legal Perspectives on Regulatory Strategies* (Edward Elgar, 2014) 91–115.

J Sanden 'Coherence in European Environmental Law with Particular Regard to the Industrial Emissions Directive' (2012) 21 *European Energy and Environmental Law Review* 22–38

9

Air Quality and Noise

Facts and figures

Policy actions and international co-operation have successfully reduced some air pollution significantly.

Still 420,000 people are estimated to have died prematurely due to air pollution in the EU in 2010.

The EU's air quality standards lag behind those of other developed nations.

Of particular concern are particulate matter (PM)—a type of fine dust—ground-level ozone (O_3) and nitrogen dioxide (NO_2).

(A Clean Air Programme for Europe)

65 per cent of Europeans living in major urban areas are exposed to high noise levels, and more than 20 per cent to night time noise levels at which adverse health effects occur frequently.

(General Union Environment Action Programme to 2020)

9.1 Introduction

Starting in the 1970s, the EU developed a comprehensive—but so far only partly successful—legal framework for tackling air pollution. This has involved establishing minimum requirements regarding air quality and emissions of certain substances as well as imposing obligations on specific sources of air pollution such as industries and motor vehicles.

The EU is party to the Convention on Long-range Transboundary Air Pollution (CLRTAP),[1] including its Protocols on, inter alia, Sulphur, Nitrogen Oxides (NO_X), Volatile Organic Compounds (VOCs), Eutrophication and Ground-level Ozone,[2] as well as the Vienna Convention for the Protection of the Ozone Layer, and its Montreal Protocol on Substances that Deplete the Ozone Layer.[3] EU legal

[1] (Geneva, 13 November 1979) 1302 UNTS 217.

[2] For further information see <http://www.unece.org/fr/env/lrtap/status/lrtap_s.html> (visited 4 May 2015).

[3] (Vienna, 22 March 1985) 1513 UNTS 293 and (Montreal, 16 September 1987) 1522 UNTS 3, respectively.

action in this area is thus partly aimed at implementing obligations incurred as a party to these instruments.

In 1996 a directive on ambient air quality assessment and management ('the Air Quality Framework Directive') was adopted.[4] Limit values for particular substances, including ozone and particulate matter, were established through a number of subsequently adopted so-called daughter directives.[5] After a number of amendments, these directives were merged into the new Directive 2008/50/EC on ambient air quality and cleaner air for Europe.[6] The other major instrument in this field, Directive 2001/81/EC, was adopted in 2001 to set national ceilings on the emissions of major air pollutants.[7]

Following a review of air policy which showed that significant negative impacts would persist even with effective implementation of existing legislation, a Thematic Strategy on Air Pollution was adopted in 2005.[8] It set out a number of actions, including revision of legislation and modernised monitoring and reporting schemes. In 2013 this was followed by the 'Clean Air Policy Package', which proposed new revisions and introduced new legislation.

Air quality is also significantly affected by legal acts not specifically targeting air pollution, most noticeably the IED discussed in section 8.2.

Noise is also a considerable health issue, particularly in densely populated areas, and has attracted EU regulatory action. It shares important characteristics with air pollution, for example the fact that substances or energy spread through the air. Noise, however, has a significantly more limited geographical distribution and is not subject to specific regulation under international law.

9.2 Ambient Air Quality and Cleaner Air for Europe

Directive 2008/50/EC on ambient air quality and cleaner air for Europe, which is based on the previous article corresponding to the current Article 192 TFEU, aims at defining and establishing objectives for ambient air quality designed to avoid, prevent, or reduce harmful effects on human health and the environment as a whole. Among its further objectives are counted assessing the ambient air quality in Member States on the basis of common methods and criteria; monitoring long-term trends and improvements resulting from national and EU measures; ensuring that

[4] Council Directive 96/62/EC on ambient air quality assessment and management [1996] OJ L 296/55.

[5] Council Directive 1999/30/EC relating to limit values for sulphur dioxide, nitrogen dioxide, and oxides of nitrogen, particulate matter, and lead in ambient air [1999] OJ L 163/41; Directive 2000/69/EC of the European Parliament and of the Council relating to limit values for benzene and carbon monoxide in ambient air [2000] OJ L 313/12; Directive 2002/3/EC of the European Parliament and of the Council relating to ozone in ambient air [2002] OJ L 67/14; Directive 2004/107/EC of the European Parliament and of the Council relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air [2005] OJ L 23/3.

[6] [2008] OJ L 152/1. [7] [2001] OJ L 309/22.

[8] Communication from the Commission—Thematic Strategy on air pollution (21 September 2005) COM(2005) 446 final.

information on ambient air quality is made available to the public; maintaining air quality where it is good and improving it in other cases; and promoting increased cooperation between the Member States in reducing air pollution. (Art 1.)

The fundamental obligation incumbent on the Member States is to establish zones throughout their territory for the purpose of air quality assessment and management. A zone that is a conurbation with a population in excess of 250,000 inhabitants or which has a certain population density, to be established by the Member States, is referred to as an 'agglomeration'. Air quality assessment and air quality management shall be carried out in all zones and agglomerations. (Arts 2 and 4.)

Chapter II of the Directive (Arts 5–11) sets out rules regarding the assessment of ambient air quality in relation to sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter, lead, benzene, and carbon monoxide. Each zone and agglomeration shall be classified in relation to specific assessment thresholds set out in Annex II. The classification shall be reviewed at least every five years. Ambient air quality is to be assessed with respect to the above listed pollutants in all zones and agglomerations. How this is to be done in a specific zone or agglomeration varies depending on whether the level of pollutants is above or below the pertinent assessment threshold. The chapter also contains specific assessment criteria for ozone.

Chapter III of the Directive (Arts 12–22) deals with the management of ambient air quality. A number of limit values, target values, and thresholds are set out in Annexes XI to XIV of the Directive. More specifically, these are limit values for the protection of human health, information and alert thresholds, critical levels for the protection of vegetation, national exposure reduction target, and target value and limit value for $PM_{2.5}$.[9]

In zones and agglomerations where the levels of sulphur dioxide, nitrogen dioxide, PM_{10}, $PM_{2.5}$, lead, benzene, and carbon monoxide in ambient air are below the respective limit values, the Member States shall maintain the levels of those pollutants below the limit values and shall endeavour to preserve the best ambient air quality compatible with sustainable development (Art 12).

As regards limit values, the levels of sulphur dioxide, PM_{10}, lead, and carbon monoxide in ambient air must not exceed the limit values in any zone or agglomeration. All necessary measures not entailing disproportionate costs are also to be taken to reduce exposure to $PM_{2.5}$ with a view to attaining the national exposure reduction target laid down in Section B of Annex XIV. (Arts 13–16.)

An 'alert threshold' is a level beyond which there is a risk to human health from brief exposure for the population as a whole and at which immediate steps are to be taken by the Member States, whereas an 'information threshold' is a level beyond which there is a risk to human health from brief exposure for particularly sensitive sections of the population and for which immediate and appropriate information is necessary. If the specified information threshold or any of the alert thresholds are exceeded, the Member State concerned must take the necessary steps to inform the public by means of radio, television, newspapers, or the Internet. (Arts 2 and 19.)

[9] $PM_{2.5}$ and PM_{10} are defined in Art 2.

Where an exceedance of a limit value for a given pollutant is attributable to natural sources it shall not be considered as an exceedance for the purposes of the Directive, provided that the Member State has provided the Commission with evidence demonstrating that the exceedance is attributable to natural sources (Art 20).

All necessary measures not entailing disproportionate costs are to be taken to ensure that the target values and long-term objectives for ozone are attained. In zones and agglomerations in which ozone levels meet the long-term objectives, Member States shall, in so far as factors including the transboundary nature of ozone pollution and meteorological conditions permit, maintain those levels below the long-term objectives. The best ambient air quality compatible with sustainable development and a high level of environmental and human health protection shall be preserved through proportionate measures. (Arts 17 and 18.)

The Directive does provide, under certain circumstances, for the postponement of attainment deadlines as well as for exemption from the obligation to apply certain limit values, but these provisions were mainly relevant during the first few years after the entry into force of the Directive (Art 22).

Where, in given zones or agglomerations, the levels of pollutants in ambient air exceed any limit value or target value, plus any relevant margin of tolerance in each case, Member States shall ensure that air quality plans are established for those zones and agglomerations in order to achieve the related limit value or target value. Those plans shall be communicated to the Commission without delay. (Art 23.)

Where, in a given zone or agglomeration, there is a risk that the levels of pollutants will exceed one or more of the alert thresholds specified in Annex XII, Member States shall draw up action plans indicating the measures to be taken in the short term in order to reduce the risk or duration of such an exceedance. Where this risk applies to limit values or target values, such short-term action plans may be drawn up where appropriate. Specific rules apply to ozone. The short-term action plans may, depending on the individual case, provide for effective measures to control and, where necessary, suspend activities which contribute to the risk of the respective limit values or target values or alert threshold being exceeded. (Art 24.)

The public, as well as appropriate organisations, such as environmental organisations, shall be informed, adequately and in good time, of ambient concentrations of the pollutants covered by the Directive and of air quality plans and programmes (Art 26).

Where any alert threshold, limit value, or target value plus any relevant margin of tolerance or long-term objective is exceeded due to significant transboundary transport of air pollutants or their precursors, the Member States concerned shall cooperate and, where appropriate, draw up joint activities, such as the preparation of joint or coordinated air quality plans (Art 25).

Directive 2004/107/EC relating to arsenic, cadmium, mercury, nickel, and polycyclic aromatic hydrocarbons in ambient air still remains as an independent directive but may in future be incorporated into Directive 2008/50/EC.[10] It contains inter alia target values and rules on assessment of ambient air concentrations and deposition rates for the substances covered.

[10] [2005] OJ L 23/3.

In a number of cases the Court of Justice has established that the persons concerned must be in a position to rely on the mandatory rules included in the directives relating to air quality, designed as they are to protect public health, whenever the failure to observe the measures required by those directives could endanger human health.[11] In *Janecek* the Court found that where there is a risk that limit values or alert thresholds may be exceeded, persons directly concerned must be in a position to require the competent national authorities to draw up an action plan. This applies even if those persons have other courses of action available to them for requiring the authorities to take measures to combat atmospheric pollution.[12] Member States are not obliged to take measures to ensure that those limit values and/or alert thresholds are never exceeded. They are only obliged to take such measures—in the context of an action plan and in the short term—as are capable of reducing to a minimum the risk that the limit values or alert thresholds may be exceeded and of ensuring a gradual return to a level below those values or thresholds. In doing so they shall take account of the factual circumstances and all opposing interests.[13]

Although *Janecek* concerned interpretation of Directive 96/62, its continued relevance, mutatis mutandis, in relation to Article 23 of Directive 2008/50/EC has been confirmed by subsequent case law.[14]

9.3 National Emission Ceilings for Certain Atmospheric Pollutants

Directive 2001/81/EC complements the measures required under Directive 2008/50/EC by setting targets for the total emissions of the covered pollutants for each Member State. The National Emission Ceilings (NEC) Directive aims, inter alia, to limit emissions of acidifying and eutrophying pollutants and ozone precursors[15] in order to improve the protection in the EU of the environment and human health. It is made clear in the preamble that the WHO guideline values for the protection of human health and vegetation from photochemical pollution are substantially exceeded in all Member States. Since it was not seen as technically feasible to meet the long-term objectives of eliminating the adverse effects of acidification and reducing exposure to ground-level ozone to the levels established by the WHO, the EU legislator deemed it necessary to provide for interim environmental objectives, on which the necessary measures to reduce such pollution are to be based.[16] For this reason the Directive has as an aim to *move towards* the long-term objectives of not exceeding critical levels and loads and of effective protection of all people against

[11] Case C-237/07 *Janecek* ECLI:EU:C:2008:447, para 38 and the case law cited there.
[12] Ibid, para 42. [13] Ibid, paras 44–47.
[14] Case C-404/13 *ClientEarth* ECLI:EU:C:2014:2382, para 57.
[15] Ground-level ozone should not be confused with the stratospheric ozone layer. Ground-level ozone is formed through chemical reactions involving oxides of NO_x, CO, and VOC (ie 'ozone precursors') and sunlight.
[16] COM(2005) 446 final (n 8) 5.

recognised health risks from air pollution by establishing national emission ceilings. The years 2010 and 2020 are to be used as benchmarks. (Art 1.)

The Directive covers emissions in the territory of the Member States and their exclusive economic zones from all sources of sulphur dioxide (SO_2), nitrogen oxides (NO_x), volatile organic compounds (VOC), and ammonia (NH_3), which arise as a result of human activities. Emissions from international maritime traffic as well as aircraft emissions beyond the landing and take-off cycle are exempted from its application. (Art 2.)

By the year 2010 at the latest, Member States were to limit their annual national emissions of the above-mentioned pollutants to amounts not greater than the emission ceilings laid down in Annex I. The purpose of the national emission ceilings are to 'meet broadly' a number of interim environmental objectives set for the EU as a whole. These include, with regard to acidification, that the areas where critical loads are exceeded shall be reduced by at least 50 per cent compared with the 1990 situation, and, with respect to ground-level ozone exposure, that the ground-level ozone load above the critical level for human health shall be reduced by two-thirds compared with the 1990 situation. (Arts 4 and 5.)

The Court of Justice has found the provisions on national emission ceilings to be 'purely programmatic in nature', for which reason they cannot be relied upon by individuals directly before the national courts—that is, they lack direct effect.[17] So-called 'indicative emission ceilings' for the EU as a whole are laid down in Annex II. These are lower than the combined national ceilings of all the Member States.

No later than October 2002 the Member States were to draw up programmes for the progressive reduction of national emissions, with the aim of complying at least with the national emission ceilings by 2010 at the latest. The requirements to draw up national programmes for the progressive reduction of national emissions and to make those programmes available to the public have been found by the Court of Justice to have direct effect.[18] However, the Court has also found the Directive to be 'based on a purely programmatic approach under which the Member States enjoy wide flexibility as regards the choice of the policies and measures to be adopted or envisaged'. It does not create an obligation to include the national emission ceilings in environmental permits for the construction and operation of industrial installations.[19]

The directive also contains requirements concerning emission inventories, projections, and reporting.

9.4 The Clean Air Policy Package

In December 2013 the Commission presented a package of measures to improve the air quality within the EU. In its communication 'A Clean Air Programme for Europe', the Commission notes that the EU's air quality standards lag behind those of other

[17] Joined Cases C-165/09 to C-167/09 *Stichting Natuur en Milieu and Others* ECLI:EU:C:2011:348, paras 97–98.

[18] Ibid, paras 99–100.

[19] Ibid, para 76.

developed nations.[20] This is partly attributed to 'ongoing substantial breaches of air quality standards' by EU Member States.[21] But even if existing legislation were implemented in full, the EU would still suffer very significant negative impacts on public health and the environment. There is thus a need to set new targets and also to align EU legislation with international developments in the form of the revised Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone to the CLRTAP.[22] To achieve new air policy targets for 2030, pollution emissions from each Member State need to be substantially reduced. This is to be achieved primarily by amendments to the NEC Directive. Part of the package is thus a proposal to repeal the NEC Directive and replace it with a recast Directive on the reduction of national emissions of certain atmospheric pollutants.[23] It would align the national emission ceiling regime with the Gothenburg Protocol and set out new targets for 2030.

The proposed new directive includes flexibility instruments according to which Member States will, under certain conditions, for example be allowed to offset certain reductions achieved by international maritime traffic against certain emissions released by other sources in the same year.

The Commission's communication also includes a proposed new directive on the limitation of emissions of certain pollutants into the air from medium combustion plants.[24] Such plants have so far generally not been regulated at EU level. The proposed Directive applies to combustion plants with a rated thermal input equal to or greater than 1 MW and less than 50 MW, irrespective of the type of fuel used. It lays down rules to control emissions of sulphur dioxide, nitrogen oxides, and particulate matter into the air from such plants.

Mention should also be made of the Communication 'Together towards competitive and resource efficient urban mobility',[25] according to which the Commission will set up a European Platform on Sustainable Urban Mobility Plans to coordinate EU cooperation on developing the concept and tools further and support national authorities to develop and implement Sustainable Urban Mobility Plans, including through funding instruments, aimed inter alia at reducing emissions from urban transport systems.

9.5 Substances that Deplete the Ozone Layer

Since 2009 substances that deplete the ozone layer have been subject to Regulation (EC) No 1005/2009 on substances that deplete the ozone layer,[26] which is a recast

[20] Communication from the Commission—A Clean Air Programme for Europe (18 December 2013) COM(2013) 918 final, 2.

[21] Ibid, 3. [22] Ibid, 3 and 5.

[23] Proposal for a Directive of the European Parliament and of the Council on the reduction of national emissions of certain atmospheric pollutants and amending Directive 2003/35/EC, COM(2013) 920 final.

[24] Proposal for a Directive of the European Parliament and of the Council on the limitation of emissions of certain pollutants into the air from medium combustion plants, COM(2013) 919 final.

[25] (17 December 2013) COM(2013) 913 final.

[26] Regulation (EC) No 1005/2009 of the European Parliament and of the Council on substances that deplete the ozone layer [2009] OJ L 286/1.

of a regulation from 2000.[27] It is concluded in the preamble to the Directive that although there is clear evidence of a decrease in the atmospheric burden of ozone depleting substances (ODS), the full recovery of the ozone layer is not projected to take place before the middle of the twenty-first century. Most of the ODS also have high global warming potential and thereby contribute to global warming. Further efficient measures need therefore to be taken in order to protect human health and the environment against adverse effects resulting from such emissions and to avoid risking further delay in the recovery of the ozone layer. Through the regulation, the EU also implements decisions made by the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer.[28]

The regulation lays down rules on the production, import, export, placing on the market, use, recovery, recycling, reclamation, and destruction of substances that deplete the ozone layer, and on the reporting of information related to those substances and to products and equipment containing or relying on those substances. Its scope of application covers the substances listed in Annex I ('controlled substances') and Annex II ('new substances'), as well as products and equipment containing or relying on controlled substances. (Arts 1 and 2.) Among the controlled substances are chlorofluorocarbons (CFCs), halons, and hydrofluorocarbons (HCFCs).

The production as well as the placing on the market and use of controlled substances is prohibited. The same goes for the placing on the market of products and equipment containing or relying on controlled substances (Arts 4–6). However, a number of exceptions, set out in Chapter 3 of the Directive, apply to the prohibitions regarding both production and placing on the market. One such exception is that halons may be placed on the market and used for critical uses defined in Annex VI.

As a general rule, imports of controlled substances and of products and equipment other than personal effects containing or relying on those substances are prohibited. Also in this case a number of exceptions apply. Among the exceptions are controlled substances to be used for laboratory and analytical uses, as feedstock, or as process agents.

The release for free circulation in the EU of imported controlled substances is subject to quantitative limits determined by the Commission, which also allocates quotas to undertakings. Exports of controlled substances or of products and equipment other than personal effects containing or relying on those substances are also as a general rule prohibited, but the prohibition is subject to several exceptions. Imports and exports are both subject to an electronic licensing system set up and operated by the commission. Controlled substances and products and equipment containing or relying on controlled substances may not be imported from or exported to any State not party to the Montreal Protocol unless the non-party has been determined by the Parties to the Protocol to be in full compliance with that instrument. (Arts 15–20.)

[27] Regulation (EC) No 2037/2000 of the European Parliament and of the Council on substances that deplete the ozone layer [2000] OJ L 244/1.

[28] Recitals 2–5.

Controlled substances contained in, inter alia, refrigeration, air-conditioning, and heat pump equipment shall, during the maintenance or servicing of equipment or before the dismantling or disposal of equipment, be recovered for destruction, recycling, or reclamation. Undertakings shall take all precautionary measures practicable to prevent and minimise any leakages and emissions of controlled substances. Specific requirements apply to undertakings operating refrigeration, air conditioning, or heat pump equipment, or fire protection systems, containing controlled substances. (Arts 22–23.)

The so-called 'new substances', which are much fewer than their 'controlled' counterparts, are listed in either Part A or Part B of Annex II. The former category is subject to prohibitions on production, import, placing on the market, use, and export similar to those that apply with respect to controlled substances. In Part B of Annex II the Commission shall, if appropriate, include any substances that are not controlled substances but that are found to have a significant ozone-depleting potential. If a substance listed in Part B is found to be exported, imported, produced, or put on the market in significant quantities the Commission shall, if appropriate, include it in Part A, thereby subjecting it to the prohibitions mentioned previously.

Regulation (EC) No 1005/2009 is based on the equivalent of the current Article 192 TFEU.

9.6 Emissions from Specific Sources

In addition to the directives and regulations discussed previously, there are several legal acts regulating emissions from specific sources. To this category belong, inter alia, Directive 2010/75/EU on industrial emissions (IED)[29] and several acts concerning emissions from vehicles. Among the latter, mention can be made of Regulation (EC) No 715/2007 on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) which establishes common technical requirements for the type approval of motor vehicles and replacement parts, with regard to their emissions.[30] Emission limits corresponding to the so-called Euro 5 and Euro 6 standards for particulate matter, carbon monoxide, and ozone precursors such as nitrogen oxides and hydrocarbons are set out in Annex I. National authorities shall refuse, on grounds relating to emissions or fuel consumption, to grant EC-type approval or national-type approval for new types of vehicle which do not comply with the Regulation and its implementing measures, and now in particular with the Euro 6 limit values set out in Table 2 of Annex I.

The Commission has concluded that the reductions required by successive generations of Euro standards and fuel quality standards have been delivered, with one exception: NO_x emissions from light-duty diesel engines. In fact, the real-world

[29] See section 8.2.

[30] Regulation (EC) No 715/2007 of the European Parliament and of the Council on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information [2007] OJ L 171/1.

NO_x emissions from Euro 5 cars type-approved in the years following 2009 were found to exceed those of Euro 1 cars type-approved in 1992.[31] In response to this the Commission has committed to a new test procedure in the type-approval framework to assess NO_x emissions of light-duty vehicles under real-world driving conditions.[32]

With respect to carbon dioxide emission, limits are set out in Regulation (EC) No 443/2009 setting emission performance standards for new passenger cars as part of the EU's integrated approach to reduce CO_2 emissions from light-duty vehicles.[33] CO_2 emissions from heavy-duty vehicles are regulated in Regulation (EC) No 595/2009 on type-approval of motor vehicles and engines with respect to emissions from heavy-duty vehicles (Euro VI) and on access to vehicle repair and maintenance information.[34] Emission limits according to the Euro 6 standard are set out in an Annex to the Directive.

In this context mention should also be made of Directive 98/70/EC relating to the quality of petrol and diesel fuels,[35] as well as Directive 1999/32/EC relating to a reduction in the sulphur content of certain liquid fuels,[36] which both regulate the characteristics of fuels. Under Directive 98/70/EC Member States may only place on the market petrol that complies with the requirements of Annex I. Among other things, the Directive severely restricts the marketing of leaded petrol and requires suppliers to gradually reduce life-cycle greenhouse gas emissions by 6 per cent by 31 December 2020. It also includes sustainability criteria for biofuels. The regulation of biofuels is further dealt with in the chapter on climate and energy.

There is also a directive from 1994 on the control of volatile organic compound (VOC) emissions resulting from the storage of petrol and its distribution from terminals to service stations.[37]

In 2010, the Commission presented a strategy for clean and energy efficient vehicles ('green vehicles') aimed at encouraging the development and market uptake of these vehicles.[38]

[31] A Clean Air Programme for Europe (n 20) para 2.2.1.

[32] CARS 2020: Action Plan for a competitive and sustainable automotive industry in Europe (8 November 2012) COM(2012) 636 final.

[33] Regulation (EC) No 443/2009 of the European Parliament and of the Council setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO_2 emissions from light-duty vehicles [2009] OJ L 140/1.

[34] Regulation (EC) No 595/2009 of the European Parliament and of the Council on type-approval of motor vehicles and engines with respect to emissions from heavy duty vehicles (Euro VI) and on access to vehicle repair and maintenance information … [2009] OJ L 188/1.

[35] Directive 98/70/EC of the European Parliament and of the Council relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC [1998] OJ L 350/58.

[36] Council Directive 1999/32/EC relating to a reduction in the sulphur content of certain liquid fuels and amending Directive 93/12/EEC [1999] OJ L 121/13.

[37] European Parliament and Council Directive 94/63/EC on the control of volatile organic compound (VOC) emissions resulting from the storage of petrol and its distribution from terminals to service stations [1994] OJ L 365/24.

[38] Communication from the Commission—A European strategy on clean and energy efficient vehicles (28 April 2010) COM(2010)186 final.

9.7 Noise

The Fifth Environmental Action Programme, adopted in 1993, identified noise as one of the most pressing environmental problems in urban areas and concluded that action needed to be taken with regard to various noise sources.[39]

Within the EU, noise is regulated both by means of more general measures such as requirements for noise mapping and implementation of action programmes, and by specific technical standards. Within the first category falls Directive 2002/49/EC relating to the assessment and management of environmental noise, which aims to define a common approach, intended to avoid, prevent, or reduce on a prioritised basis the harmful effects due to exposure to environmental noise.[40] To that end a number of measures shall be implemented progressively, including noise mapping, by methods of assessment common to the Member States; the making of information on environmental noise and its effects available to the public; and the adoption of action plans with a view to preventing and reducing environmental noise where necessary and particularly where exposure levels can induce harmful effects on human health. 'Environmental noise' is defined as unwanted or harmful outdoor sound created by human activities, including noise emitted by means of transport, road traffic, rail traffic, air traffic, and from sites of industrial activity. (Arts 1 and 2.)

The Directive applies to environmental noise to which humans are exposed in particular in built-up areas, in public parks or other quiet areas in an agglomeration, in quiet areas in open country, near schools, hospitals, and other noise-sensitive buildings and areas. Certain kinds of noise, including noise from domestic activities and noise at workplaces, are not covered. (Art 2.)

Every five years strategic noise maps showing the situation in the preceding calendar year must be made for all agglomerations and for all major roads and major railways within each Member State. Action plans must be drawn up by the competent authorities to address priorities which may be identified by the exceeding of any relevant limit value or by other criteria chosen by the Member States, and communicated to the Commission, for the agglomerations and for the major roads as well as the major railways within their territories. The action plans shall meet minimum requirements set out in Annex V. (Arts 7–9.)

More specific in its application is Directive 2002/30/EC on the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at airports.[41]

[39] Resolution of the Council and the Representatives of the Governments of the Member States, meeting within the Council of 1 February 1993 on a Community programme of policy and action in relation to the environment and sustainable development—A European Community programme of policy and action in relation to the environment and sustainable development [1993] OJ C 138/1.

[40] Directive 2002/49/EC of the European Parliament and of the Council relating to the assessment and management of environmental noise [2002] OJ L 189/12.

[41] Directive 2002/30/EC of the European Parliament and of the Council on the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at Community airports [2002] OJ L 85/40.

Pertinent requirements on products are found primarily in two directives. One is Directive 70/157/EEC on the approximation of the laws of the Member States relating to the permissible sound level and the exhaust system of motor vehicles, which lays down limits for the noise level of the mechanical parts and exhaust systems.[42] The noise limits range from 74 dB(A) to 80 dB(A) depending on the type of vehicle. Member States may not, on grounds relating to the permissible sound level and the exhaust system, refuse or prohibit the sale, registration, entry into service, or use of any vehicle in which the sound level and the exhaust system satisfy the requirements set out in an Annex to the Directive. The same applies to refusal to grant EU or national-type approval in respect of a type of motor vehicle or type of exhaust system that meets the requirements of the Directive. With effect from 1 July 2027 the Directive will be repealed and replaced by Regulation (EU) No 540/2014 on the sound level of motor vehicles and of replacement silencing systems.[43]

Noise requirements for several other products can be found in Directive 2000/14/EC on the approximation of the laws of the Member States relating to the noise emission in the environment by equipment for use outdoors.[44] It aims to harmonise noise emission standards, conformity assessment procedures, marking, technical documentation, and collection of data concerning noise emission in the environment of equipment for use outdoors in order to prevent obstacles to the free movement of such equipment. The Directive applies to equipment listed in some of the articles or defined in Annex I. The Member States may not prohibit, restrict, or impede the placing on the market or putting into service of equipment covered by the Directive which complies with its provisions, bears the CE marking, indicates the guaranteed sound power level, and is accompanied by an EC declaration of conformity.

Further Reading

L Krämer *EU Environmental Law* (7th edn, Sweet & Maxwell, 2012) Chap 8

S Varvaštian 'Achieving the EU Air Policy Objectives in Due Time: A Reality or a Hoax?' (2015) 24 *European Energy and Environmental Law Review* 2–11

[42] Council Directive 70/157/EEC on the approximation of the laws of the Member States relating to the permissible sound level and the exhaust system of motor vehicles [1970] OJ L 42/16.

[43] Regulation (EU) No 540/2014 of the European Parliament and of the Council on the sound level of motor vehicles and of replacement silencing systems, and amending Directive 2007/46/EC and repealing Directive 70/157/EEC [2014] OJ L 158/131.

[44] Directive 2000/14/EC of the European Parliament and of the Council on the approximation of the laws of the Member States relating to the noise emission in the environment by equipment for use outdoors [2000] OJ L 162/1.

10

Water

Facts and figures

Europe's waters are much cleaner than they were 25 years ago, due to investment in sewage systems to reduce pollution from urban wastewater treatment.

In early 2015 the European Environment Agency estimated that the objective of reaching good ecological status by 2015 was only likely to be met by 53 per cent of surface water bodies.

The Baltic Sea—as a semi-enclosed regional sea with low salinity—is considered the largest human-induced hypoxic area in the world.

European seas are affected by climate change through ocean acidification and increasing water temperatures.

(EEA: The European environment—state and outlook 2015)

Pollution in the marine environment has decreased in some places but levels of nutrients and certain hazardous substances are overall still above acceptable limits.

In the North Sea, over 90 per cent of Fulmar sea birds have plastic in their stomach and on average 712 items of litter are found on 100m stretch of beach on the Atlantic Coast.

(COM(2014) 97 final)

10.1 Introduction

That water is a fundamental prerequisite for life on this planet is well known. According to the centrepiece of EU water law water is not 'a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such'.[1] At the same time, water resources are subject to considerable pressures. The most widespread pressures on fresh water are diffuse pollution, physical modifications of water ecosystems, and, particularly in Southern Europe, overexploitation of water.[2]

[1] Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for Community action in the field of water policy [2000] OJ L 327/1.

[2] Communication from the Commission—Towards sustainable water management in the European Union—First stage in the implementation of the Water Framework Directive 2000/60/EC (22 March 2007) COM(2007) 128/Final, 5.

The water environment is subject to rather extensive EU regulation and has been so for some time.[3] But it was first in 2000, through the adoption of a framework directive on water, that the EU took a comprehensive and cohesive approach covering qualitative as well as quantitative aspects of management and protection of inland and coastal waters. In 2008 another framework directive was adopted to address marine water resources in a similar way.

Since polluting substances of various kinds have a tendency to eventually reach and affect water bodies, a large number of other EU legal acts are also relevant to the protection of water. That goes, inter alia, for waste and chemicals legislation, as well as for rules affecting air emissions. While these other acts are dealt with in other parts of the book, this chapter is dedicated to EU legal acts focusing specifically on protection and management of water.

There is a considerable body of EU law dealing with various environmental and safety aspects of maritime transport. This legislation is dealt with briefly so as to provide an overview, while the main focuses of this chapter are the framework directives on fresh water and coastal waters and on maritime waters, respectively.

10.2 The Water Framework Directive (WFD)

Directive 2000/60/EC establishing a framework for Community action in the field of water policy (the 'WFD') is a comprehensive legal act, which reflects a modern approach to environmental protection.[4] Unlike previous acts in this area, the WFD takes the complexity and functioning of ecosystems as its point of departure. It combines the regulation of emission sources with the setting of ambitious environmental quality standards (EQS). The WFD is clearly one of the EU environmental acts that has had—or will have if implemented correctly—the most far-reaching implications for environmental protection and natural resource management in the Member States. It repeals a number of older pieces of EU law, including Directive 80/68/EEC on the protection of groundwater against pollution caused by certain dangerous substances.[5]

The WFD, which is part of the EU's environmental policy and based on an article corresponding to the current Article 192(1) TFEU, establishes a framework for the protection of inland surface waters,[6] transitional waters,[7] coastal waters,[8]

[3] For an overview of the historical development of EU water protection policy, see L Krämer *EU Environmental Law* (7th edn, Sweet & Maxwell, 2012) 251–3.

[4] Dir 2000/60/EC (n 1).

[5] Council Directive 80/68/EEC on the protection of groundwater against pollution caused by certain dangerous substances [1980] OJ L 20/43.

[6] 'Surface water' is inland waters, except groundwater; transitional waters; and coastal waters, except in respect of chemical status, for which it also includes territorial waters (Art 2).

[7] 'Transitional waters' are bodies of surface water in the vicinity of river mouths which are partly saline in character as a result of their proximity to coastal waters but which are substantially influenced by freshwater flows (Art 2).

[8] 'Coastal water' is surface water on the landward side of a line, every point of which is at a distance of one nautical mile on the seaward side from the nearest point of the baseline from which the breadth

and groundwater. This framework has multiple purposes: to prevent further deterioration and protect and enhance the status of aquatic ecosystems; to promote sustainable water use based on a long-term protection of available water resources; to enhance protection and improvement of the aquatic environment, inter alia, through measures for the progressive reduction, cessation or phasing-out of discharges, emissions and losses of priority (ie a group of hazardous) substances; and to progressively reduce pollution of groundwater and prevent its further pollution. It should also contribute to mitigating the effects of floods and droughts. (Art 1.)

Furthermore, the WFD should help the EU and the Member States meet their respective obligations under a number of international agreements, among them the Helsinki Convention,[9] the OSPAR Convention,[10] and the Barcelona Convention.[11,12]

The primary aim of the WFD is that at least good water status should be achieved throughout the Union and maintained where it already exists. The water management system established to achieve this aim is based on assessment of the environmental quality of water bodies and the setting of environmental objectives. Improvement of the water quality, or preservation where it is already good, is to be achieved through programmes of measures that are revised regularly based on data gained from monitoring activities. Consistent with this, the Court of Justice has concluded that most of the provisions of the WFD require the taking of the necessary measures to ensure the attainment of certain objectives, sometimes formulated in general terms, while leaving the Member States some discretion as to the nature of the measures to be taken.[13]

A defining premise of the WFD is that water management should be organised based on geographic and hydrological conditions rather than according to pre-existing administrative structures. Against this backdrop the Member States must identify all individual river basins within their national territory, assign them to individual river basin districts, and ensure that there are appropriate administrative arrangements, including the identification of a competent authority, for the application of the WFD within each river basin district. (Art 3.)

A 'river basin' is the area of land from which all surface run-off flows through a sequence of streams, rivers and, possibly, lakes into the sea at a single river mouth, estuary, or delta, whereas a 'river basin district', that is, the main unit for management of river basins, is the area of land and sea made up of one or more neighbouring

of territorial waters is measured, extending where appropriate up to the outer limit of transitional waters (Art 2).

[9] The Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention) (Helsinki, 9 April 1992) 1507 UNTS 167.

[10] Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention) (Paris, 22 September 1992) 2354 UNTS 67.

[11] Convention for the protection of the Mediterranean Sea against pollution (Barcelona Convention) (Barcelona, 16 February 1976) 1102 UNTS 27.

[12] Dir 2000/60/EC, preambular para 21.

[13] Case C-32/05 *Commission v Luxembourg* ECLI:EU:C:2006:749, para 43.

river basins together with their associated groundwaters and coastal waters, as identified by the Member State concerned.

Where a river basin covers the territory of more than one Member State, it shall be assigned to a so-called international river basin district. Coastal waters shall also be identified and assigned to the nearest or most appropriate river basin district. (Arts 2 and 3.)

At the latest four years after the entry into force of the WFD, each Member State was required, with respect to each river basin district, to analyse its characteristics, to review the impact of human activity on the status of surface waters and on groundwater, and to carry out an economic analysis of water use. This includes characterisation of surface water and groundwater bodies in accordance with the method set out in Annex II.[14] The analyses and reviews had to be reviewed, and if necessary updated, at the latest in 2013 and then every six years thereafter. (Art 5.) Since these analyses provide the basis for the management measures required by the WFD, this means that water management under the WFD operates based on six year-cycles.

Characterisation in many cases did not occur at the required pace. In some Member States ecological and chemical water status remained unknown for more than 50 per cent of the water bodies in 2012.[15]

The outcomes of the analyses are compared with the environmental objectives which are to be achieved according to Article 4.

10.2.1 Environmental objectives

Separate environmental objectives apply with respect to surface waters, groundwater, and protected areas.

With respect to surface water, Member States are required to prevent deterioration of the status of all bodies of such water and protect, enhance, and restore all bodies of surface water, except for artificial and heavily modified bodies of water,[16] with the aim of achieving 'good surface water status' by 2015 at the latest. There are hence two separate but linked objectives: to prevent deterioration and to achieve good surface water status. Artificial and heavily modified bodies shall be protected and enhanced with the aim of achieving 'good ecological potential' and 'good

[14] On the issue of what size a body of water must have for there to be an obligation to analyse and classify it, see S Möckel 'Small Water Bodies and the Incomplete Implementation of the Water Framework Directive in Germany' (2013) 10 *Journal for European Environmental & Planning Law* 262–75.

[15] Report from the Commission on the Implementation of the Water Framework Directive (2000/60/EC) River Basin Management Plans (14 November 2012) COM(2012) 670 final, 7.

[16] An 'artificial water body' is a body of surface water created by human activity whereas by 'heavily modified water body' is understood a body of surface water which as a result of physical alterations by human activity is substantially changed in character, as designated by the Member State in accordance with the provisions of Annex II. For further guidance on these terms, see Common Implementation Strategy for the Water Framework Directive (2000/60/EC), Guidance document No 4, Identification and Designation of Heavily Modified and Artificial Water Bodies, Office for Official Publications of the European Communities, 2003.

surface water chemical status' no later than 2015. Member States shall also progressively reduce pollution from priority substances and cease or phase out emissions of priority hazardous substances.[17] (Art 4.)

A surface water body has good surface water status when both its ecological status and its chemical status are at least 'good'. 'High' status is only achieved when a surface water body's biological, chemical, and morphological conditions are all subject to no or very low human pressure. (Art 2.)

The ecological status of surface water, which is an expression of the quality of the structure and functioning of aquatic ecosystems associated with surface waters, is classified by the respective Member State in accordance with Annex V as either 'high', 'good', 'moderate', 'poor', or 'bad'.[18] Among the quality elements to be considered for the classification of ecological status are, using rivers as an example, biological elements such as composition and abundance of aquatic flora and fish fauna, quantity and dynamics of water flow, oxygenation conditions, salinity, acidification status, and nutrient conditions.[19] This enables the classification to be based on consideration of local and regional conditions. However, the WFD (Section 1.4.1 of Annex V) provides a process to ensure comparability between the biological monitoring results of Member States, thereby aiming for a harmonised approach to defining good ecological status. It requires the Member States' biological monitoring results and their monitoring system classifications to be compared through an intercalibration network composed of monitoring sites in each Member State and in each ecoregion of the Union. The value for the boundary between the classes of high and good status and the value for the boundary between good and moderate status, established through the intercalibration exercise, are set out in a decision by the Commission.[20]

Surface water chemical status is deemed to be good when concentrations of pollutants do not exceed established EQS. As will be discussed further in section 10.2.7, chemical EQS are now set out in the Directive on EQS in the field of water policy (Directive 2008/105/EC)[21] (Art 2). Since these, unlike the biological quality elements, are set directly at EU level, there is no need for intercalibration.

Establishing, in accordance with Annex V, what constitutes good ecological potential, that is, the ecological objective for artificial and heavily modified water bodies, is often challenging due to lack of a clear natural reference.[22]

[17] On priority hazardous substances see further below in the subchapter on groundwater.

[18] However, 'poor' and 'bad' are only very briefly defined.

[19] The quality elements for other kinds of waters, ie, lakes, transitional waters, and coastal waters, are partly different. Annex V.

[20] Commission Decision 2013/480/EU establishing, pursuant to Directive 2000/60/EC of the European Parliament and of the Council, the values of the Member State monitoring system classifications as a result of the intercalibration exercise and repealing Decision 2008/915/EC [2013] OJ L 266/1.

[21] However, 'established EQS' covers all EQS that may be established under other relevant EU legislation.

[22] On this problem see, eg, A M Keessen and others 'European River Basin Districts: Are They Swimming in the Same Implementation Pool?' (2010) 22 *Journal of Environmental Law* 197–221, 203.

The environmental objectives for groundwater are:

- To prevent or limit the input of pollutants into groundwater and to prevent the deterioration of the status of all bodies of groundwater;
- To protect, enhance, and restore all bodies of groundwater and ensure a balance between abstraction and recharge of groundwater, with the aim of achieving good groundwater status no later than 2015;[23]
- To reverse any significant and sustained upward trend in the concentration of any pollutant resulting from the impact of human activity in order progressively to reduce pollution of groundwater.[24] (Art 4)

The status of a groundwater body is good when both its quantitative status and its chemical status are at least 'good'. In order for the chemical status of a body of groundwater to be good, it must meet the relevant conditions in Annex V. 'Good quantitative status' is defined in the same Annex. (Art 2.)

With respect to protected areas, the Member States shall achieve compliance with applicable standards and objectives, essentially the Habitats and Birds Directives (Directive 92/43/EEC and Directive 2009/147/EC), by 2015 at the latest, unless otherwise specified in the EU legislation under which the individual protected areas have been established.[25] A register must also be established of all areas lying within each river basin district which have been designated as requiring special protection under EU law for the protection of their surface water and groundwater or for the conservation of habitats and species directly depending on water. (Arts 4 and 6.)

Only in a few cases, primarily relating to chemical status, does the Directive lay down clear, numerical criteria for what qualifies as good status. Most criteria to be considered in the assessment of water status are phrased in more general terms.[26] Indeed, the legal nature and binding force of the environmental objectives set out in Article 4 have been much debated and different interpretations have been advanced both by Member States and by scholars.[27]

In 2015, in the *Weser* case, the Court of Justice added clarity on some important points. First of all it found the objectives set out in Article 4(1)(a)—including preventing deterioration of the status of all bodies of surface water, achieving good surface water status or, for heavily modified bodies of water, good ecological potential

[23] This is to be done in accordance with the provisions of Annex V.

[24] Measures to achieve trend reversal shall be implemented in accordance with paras 2, 4, and 5 of Art 17.

[25] Regarding which areas count as protected areas, see Annex IV. Among these are areas designated for the abstraction of water intended for human consumption, nutrient-sensitive areas, and areas designated for the protection of habitats or species where the maintenance or improvement of the status of water is an important factor in their protection, including relevant Natura 2000 sites.

[26] Regarding these open criteria and the possibility of achieving effective and consistent application of the environmental targets see M Lee 'Law and Governance of Water Protection Policy' in J Scott (ed) *Environmental Protection: European Law and Governance* (Oxford University Press, 2009) 27–55, 36 et seq.

[27] On the varying interpretations and the resulting problems for the implementation of the WFD see J J H van Kempen 'Countering the Obscurity of Obligations in European Environmental Law: An Analysis of Article 4 of the European Water Framework Directive' (2012) 24 *Journal of Environmental Law* 499–533.

and good surface water chemical status—to be binding in nature and involve an obligation on the Member States to act to that effect.[28] The Court also held that Article 4(1) entails obligations which must be complied with by the competent authorities when approving individual projects in the context of the legal regime governing the protection of waters. A Member State is thus required to refuse authorisation for any project that will result in deterioration of the status of the body of water concerned or jeopardise the attainment of good surface water status, unless the project is covered by a derogation.[29]

Thus inevitably rises the question: what constitutes deterioration of the status of a water body in this regard? In the absence of a definition in the WFD, the Court of Justice found there to be deterioration as soon as the status of at least one of the quality elements (as defined in Annex V) falls by one class, even if that fall does not result in a fall in classification of the body of surface water as a whole.[30] This obligation to refuse authorisation for individual projects provides a potentially powerful instrument for protecting water bodies, even though its effect is limited to projects that require authorisation. At the same time it is likely to have far-reaching consequences for the ability to establish or expand industrial operations and infrastructure installations in the vicinity of water bodies and is bound to be criticised for not allowing desirable flexibility or the taking of a more holistic approach to the environmental quality of a region or a water body. Some uncertainty also remains as to the exact scope of this obligation, that is, when and where degradation is to be established.

10.2.2 Exemptions and common implementation

There are a number of exemptions to the general environmental objectives which allow for less stringent objectives, for extension of the deadline for achieving good status beyond 2015, or for the implementation of new projects affecting the water status.

Starting with time limits, these may be extended if certain conditions are met. Extension is allowed when the Member State concerned determines that all necessary improvements in the status of bodies of water cannot reasonably be achieved within the timescales set out because:

1. The scale of improvements required can only be achieved in phases exceeding the timescale, for reasons of technical feasibility.
2. Completing the improvements within the timescale would be disproportionately expensive.
3. Natural conditions do not allow timely improvement in the status of the body of water.

[28] Case C-461/13 *Bund für Umwelt und Naturschutz Deutschland* ECLI:EU:C:2015:433, paras 31 and 43.

[29] Ibid, para 50.

[30] The Court added that if the quality element concerned is already in the lowest class, any deterioration of that element constitutes deterioration. Case C-461/13 *Bund für Umwelt* (n 28), para 70.

No further deterioration in the status of the affected body of water may be allowed to occur. (Art 4.)

Member States also may aim to achieve less stringent environmental objectives than those normally required for specific bodies of water when they are so affected by human activity or their natural condition is such that the achievement of these objectives would be infeasible or disproportionately expensive. However, if the environmental and socioeconomic needs served by the human activity can be achieved by other means, which are a significantly better environmental option not entailing disproportionate costs, less stringent standards are not allowed. Additional conditions also apply, including that no further deterioration may occur in the status of the affected body of water.

Subject to certain conditions, temporary deterioration in the status of bodies of water is not seen as a violation of the Directive if it is the result of circumstances of natural cause or force majeure, which are exceptional or could not reasonably have been foreseen. (Art 4.)

A failure to achieve good status or to prevent deterioration in the status of a body of surface water or groundwater is also permissible if it is the result of new modifications to the physical characteristics of a surface water body or alterations to the level of bodies of groundwater, or if, in the case of failure to prevent deterioration from high status to good status of a body of surface water, it is the result of new sustainable human development activities. However, if the failure to achieve good status or prevent deterioration is not to be a violation of the WFD, all practicable steps must have been taken to mitigate the adverse impact on the status of the body of water. The reasons for those modifications or alterations, to be explained in the river basin management plan, must be of overriding public interest and/or the benefits to the environment and to society of achieving the environmental objectives must be outweighed by the new modifications or alterations' benefits to human health, to the maintenance of human safety, or to sustainable development. A further prerequisite is that the beneficial objectives served by those modifications or alterations may not, for reasons of technical feasibility or disproportionate cost, be achieved by other means which are a significantly better environmental option.

Use of these exceptions from the environmental objectives must never result in a lowering of the protection compared to the EU legislation existing when the WFD was adopted. (Art 4.)

The Commission has found exemptions to be applied too widely and often without appropriate justification or without making clear what measures, if any, are taken to progress towards the environmental objectives.[31]

The setting of ecological objectives by the Member States themselves, together with the rather wide permissible exemptions, can result in significant differences between Member States as regards what measures can be taken without breaching the

[31] Communication from the Commission—The Water Framework Directive and the Floods Directive: Actions towards the 'good status' of EU water and to reduce flood risks (3 March 2015) COM(2015) 120 final, 5.

Directive as implemented. In order to promote coherent implementation the Member States, Norway, and the Commission have agreed on a Common Implementation Strategy (CIS), which has resulted in a number of guidance documents.[32] This process and the resultant documents have been criticised for their unclear legal status and for not always being consistent with the WFD as such.[33]

10.2.3 Programmes of measures, monitoring, and management

In order to achieve the environmental objectives, Member States must establish a programme of measures for each river basin district. Such programmes are to include a number of 'basic' measures as well as, where necessary, 'supplementary' measures.

Many of the twelve listed basic measures concern fulfilment of obligations in other EU legislation for the protection of water or refer in general terms to requirements of the WFD itself, such as recovery of costs for water services and promotion of efficient and sustainable water use in order to avoid compromising the achievement of the environmental objectives of Article 4. There are also more specific basic measures, including requirements to impose controls over the abstraction of fresh surface water and groundwater and a requirement for prior authorisation of artificial recharge or augmentation of groundwater bodies. Point source discharges liable to cause pollution must be subject to prior regulation, prior authorisation, or registration based on general binding rules, laying down emission controls for the pollutants concerned. For diffuse sources liable to cause pollution, measures must be taken to prevent or control the input of pollutants. There must also be a general prohibition, subject to some exemptions, on direct discharges of pollutants into groundwater. (Art 11.)

'Supplementary' measures are measures designed and implemented in addition to the basic measures, with the aim of achieving the environmental objectives. A non-exclusive list of such measures can be found in Part B of Annex VI. Some of these, such as 'economic or fiscal instruments', should rather be described as categories of measure, whereas others, such as 'recreation and restoration of wetlands areas', are more concrete. Whereas the basic measures have been described as being, to a large extent, obligations on the design of water administration and management in the Member States, the supplementary measures show what may need to be done if the diligent implementation of existing legal instruments is not sufficient to meet the environmental objectives.[34]

The programmes of measures had to be established by 2009 and all the measures were to be operational by 2012. They were to be reviewed, and if necessary updated, at the latest in 2015, and every six years thereafter. (Art 11.)

[32] See <http://ec.europa.eu/environment/water/water-framework/objectives/implementation_en.htm> (visited 4 December 2015).

[33] On this matter see H Josefsson 'Ecological Status as a Legal Construct—Determining Its Legal and Ecological Meaning' (2015) 27 *Journal of Environmental Law* 231–58, 39 et seq and the literature cited there.

[34] L Baaner 'The Programme of Measures of the Water Framework Directive—More Than Just a Formal Compliance Tool' (2011) 8 *Journal for European Environmental & Planning Law* 82–100, 89.

In order to establish a coherent and comprehensive overview of water status within each river basin district, programmes shall be established for the monitoring of water status. For surface waters such programmes shall cover the volume and level or rate of flow to the extent relevant as well as the ecological and chemical status and ecological potential. For groundwaters they shall cover monitoring of the chemical and quantitative status. The monitoring shall be in accordance with the requirements of Annex V. All bodies of water used for the abstraction of water intended for human consumption above a certain daily volume as well as bodies of water intended for such use in future are subject to specific monitoring and quality requirements. Member States may also establish safeguard zones for such bodies of water. (Arts 7 and 8 and Annex V.)

Minimum performance criteria for methods of analysis to be applied by Member States when monitoring water status, sediment, and biota have been laid down in a Commission directive.[35]

If monitoring or other data indicate that the environmental objectives for a body of water are unlikely to be achieved, the causes of the possible failure must be investigated and relevant permits and authorisations examined and reviewed as appropriate. The monitoring programmes must also be reviewed and adjusted as appropriate and additional measures as may be necessary must be established, including, as appropriate, the establishment of stricter EQS. (Art 11.)

For each river basin district there must be a river basin management plan, which is to include the information detailed in Annex VII. Specific rules apply to international river basin districts, both those falling entirely within the EU and those extending beyond the boundaries of the Union. Similar to the programmes of measures, the river basin management plans were to be published in 2009 at the latest and to be reviewed and updated at the latest in 2015 and every six years thereafter.

Active involvement of all interested parties in the production, review, and updating of the river basin management plans is to be encouraged. Certain documents, including a timetable and work programme for the production of the plan, an interim overview of the significant water management issues identified in the river basin, and draft copies of the river basin management plan must be published and made available for comments to the public. (Arts 13, 14, and 15.)

10.2.4 Combined approach

For discharges into surface waters the WFD applies a 'combined approach' by providing for limitations on pollutant releases at the source, as well as the establishment of EQS. To this end the Member States were required, at the latest by 2012 unless otherwise specified, to establish and/or implement the emission controls based on BAT, or the relevant emission limit values as set out in any relevant EU legislation,

[35] Commission Directive 2009/90/EC laying down, pursuant to Directive 2000/60/EC of the European Parliament and of the Council, technical specifications for chemical analysis and monitoring of water status [2009] OJ L 201/36.

including what is now the IED (Directive 2010/75/EU) and the Directives listed in Annex IX of the WFD. In the case of diffuse impacts, controls—including, as appropriate, best environmental practices—were to be implemented. However, these obligations are linked to EQS through a requirement that when a quality objective or quality standard established pursuant to relevant EU legislation requires stricter conditions, more stringent emission controls must be set accordingly. (Art 10.)

For many Member States this has required fundamental adjustments of their regulatory approach since releases of pollutants have traditionally been controlled by either one of these two control mechanisms, rather than by a combination of the two instruments.

10.2.5 Recovery of costs

The Member States must take account of the principle of recovery of the costs of water services, including environmental and resource costs, and in accordance with the polluter-pays principle. This necessitates an economic analysis of water services based on long-term forecasts of supply and demand for water in each river basin district. By 2010 they were to ensure that water-pricing policies provide adequate incentives for users to use water resources efficiently, and thereby contribute to the environmental objectives of the WFD. There shall be an adequate contribution of the different water uses, including industry, households, and agriculture, to the recovery of the costs of water services. The Member States may have regard to the social, environmental, and economic effects of the recovery as well as the geographic and climatic conditions of the region or regions affected.

Exemptions to the principle of recovery of the costs are allowed for a given water-use activity if they do not compromise the purposes and the achievement of the objectives of the WFD.[36] The price policy does also not prevent funding of particular preventive or remedial measures in order to achieve those objectives. According to the Commission, few Member States have implemented a transparent recovery of environmental and resource costs. Cost recovery is particularly limited from agriculture.[37]

The WFD identifies two areas that require specific legal action: groundwater, which is dealt with in Article 16, and priority hazardous substances, addressed in Article 17.

10.2.6 Groundwater

Article 17 of the WFD instructs the EU legislator to adopt specific measures to prevent and control groundwater pollution, aimed at achieving the objective of good groundwater chemical status. As mentioned previously, the 1979 Directive on the

[36] On the extent of the obligation to recover costs see Case C-525/12 *Commission v Germany* ECLI:EU:C:2014:2202.

[37] River Basin Management Plans (n 15) 11.

protection of groundwater against pollution caused by certain dangerous substances was repealed by the WFD from 2013. Instead a new Directive 2006/118/EC on the protection of groundwater against pollution and deterioration has been adopted.[38] It contains criteria for the assessment of good groundwater chemical status, for the identification and reversal, through the programme of measures required by the WFD, of significant and sustained upward trends with respect to concentration of pollutants in groundwater. There are also rules on the definition of so-called starting points for trend reversals. It is specified that the programme of measures established in accordance with the WFD must include, inter alia, all measures necessary to prevent inputs into groundwater of any hazardous substances.

10.2.7 Priority hazardous substances

Priority hazardous substances, which are now subject to specific regulation pursuant to Article 16 of the WFD, have been regulated by the EU since the 1970s. A directive on pollution caused by certain dangerous substances discharged into the aquatic environment, which identified groups of dangerous substances, was adopted in 1976.[39] In the 1980s it was supplemented by so-called daughter directives setting limit values and quality objectives for discharges of certain dangerous substances, including mercury and DDT.[40] In 2006 the 1976 Directive was codified as Directive 2006/11/EC.[41] However, the framework for control of pollution by dangerous substances has been gradually replaced by the WFD and Directive 2006/11/EC was repealed in 2013, when the relevant provisions of the WFD were to have been fully implemented.[42]

As early as 2001, a first list of priority substances according to the WFD was adopted and added to the WFD as Annex X.[43] However, in 2008 a new Directive 2008/105/EC on environmental quality standards in the field of water policy was adopted (the 'Priority Substances Directive').[44] It lays down EQS for forty-five priority substances (ie substances that have been prioritised for action at EU level) and other pollutants as provided for in Article 16 of the WFD, with the aim of achieving good surface water chemical status in accordance with Article 4 of that Directive. Among the substances for which EQS are set out are DDT, dioxins, mercury, lead, and benzene. The list of priority substances shall be updated regularly. For these pollutants, measures shall be taken aimed at their progressive reduction.

[38] [2006] OJ L 372/19.

[39] Council Directive 76/464/EEC on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community [1976] OJ L 129/23.

[40] Council Directive 84/156/EEC on limit values and quality objectives for mercury discharges by sectors other than the chlor-alkali electrolysis industry [1984] OJ L 74/49; Council Directive 86/280/EEC on limit values and quality objectives for discharges of certain dangerous substances included in List I of the Annex to Directive 76/464/EEC [1986] OJ L 181/16.

[41] [2006] OJ L 64/52.

[42] Directive 2000/60/EC, Art 22.

[43] Decision No 2455/2001/EC of the European Parliament and of the Council establishing the list of priority substances in the field of water policy and amending Directive 2000/60/EC [2001] OJ L 331/1.

[44] [2008] OJ L 348/84.

Within two years of the inclusion of a substance on the list of priority substances the Commission shall submit proposals, at least for emission controls for point sources and EQS. In the absence of agreement at EU level, Member States must take such action five years after the date of inclusion in the list. (WFD, Art 16.)

Some of the priority substances have been identified as priority hazardous substances for which Member States should implement necessary measures with the aim of the cessation or phasing out of discharges, emissions, and losses.

Amendments decided in 2013 introduced an obligation on the Commission to establish a watch list of substances for which EU-wide monitoring data are to be gathered for the purpose of supporting future prioritisation exercises.[45] A first watch list was established in 2015 and is to be updated every two years.[46]

The list of priority substances previously set out in Annex X to the WFD has been repealed and replaced by Annex II to Directive 2008/105/EC. The Directive also repeals the old 'daughter directives' from the 1980s.

10.3 Other Legal Acts on Water Protection

In addition to the WFD and the related directives setting out specific EQS, there are a number of other directives which supplement the WFD in different ways.

10.3.1 Urban waste-water treatment

One of these is Directive 91/271/EEC concerning urban waste-water treatment.[47] It aims to protect the environment from the adverse effects of waste-water discharges by laying down rules on collection, treatment, and discharge of urban waste water and the treatment and discharge of waste water from certain industrial sectors. A core obligation is to ensure that all agglomerations with a population equivalent of 2,000 or more are provided with collecting systems, that is, systems of conduits, for urban waste water.[48] Where the establishment of a collecting system is not justified either because it would produce no environmental benefit or because it would involve excessive cost, individual systems or other appropriate systems which achieve the same level of environmental protection shall be used. Urban waste water entering collecting systems must, subject to some exceptions, be subject before discharge to secondary treatment or an equivalent treatment meeting certain

[45] On the 2013 amendments, including the watch list, see K Kern 'New Standards for the Chemical Quality of Water in Europe under the new Directive 2013/39/EU' (2014) 11 *Journal for European Environmental & Planning Law* 31–48.

[46] Commission Implementing Decision (EU) 2015/495 establishing a watch list of substances for Union-wide monitoring in the field of water policy pursuant to Directive 2008/105/EC of the European Parliament and of the Council (notified under document C(2015) 1756) [2015] OJ L 78/40.

[47] [1991] OJ L 135/40.

[48] On the extent of the obligation to collect urban waste water see Case C-395/13 *Commission v Belgium* ECLI:EU:C:2014:2347.

requirements.[49] Discharges from urban waste-water treatment plants must satisfy the relevant requirements of Annex I. Particular rules apply in respect to discharges into sensitive areas and less sensitive areas respectively. Areas should be identified as sensitive when certain conditions, relating to eutrophication, abstraction of drinking water, or requirements of other directives, are met. Before discharge into sensitive areas, urban waste water that has entered a collecting system must be subject to more stringent treatment.[50] Sludge arising from waste-water treatment is to be re-used whenever appropriate.

10.3.2 Pollution by nitrates from agricultural sources

Another directive which requires mentioning in this context is Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources.[51] It aims specifically at reducing water pollution caused or induced by nitrates from agricultural sources and at preventing further such pollution. The Member States shall identify waters affected by pollution and waters which could be affected by pollution if certain action is not taken. They must designate as vulnerable zones all known areas of land in their territories which drain into the waters thus identified and which contribute to pollution. Action programmes shall be established for these zones, which must include rules on periods when the land application of certain types of fertiliser is prohibited; the capacity of storage vessels for livestock manure; and limitation of the land application of fertilisers.[52] If it becomes apparent that these measures will not be sufficient, Member States also must, in the framework of the action programmes, take such additional measures or reinforced actions as they consider necessary. According to the Court of Justice, such additional measures must be taken when the Member State first observes a need for them.[53]

All waters are also to be provided a general level of protection against pollution through the establishment of a voluntary code of good agricultural practice and, where necessary, by the setting up of a programme promoting the application of the code.

10.3.3 Bathing water quality

The EU has had rules relating to bathing water quality since the 1970s. Currently this area is governed by Directive 2006/7/EC concerning the management of bathing water quality.[54] It aims to preserve, protect, and improve the quality of the environment and to protect human health by complementing the WFD. It does

[49] On the treatment requirement see Case C-301/10 *Commission v United Kingdom* ECLI:EU:C:2012:633 and the case law cited there.

[50] On more stringent treatment see, eg, C-438/07 *Commission v Sweden* CLI:EU:C:2009:196.

[51] [1991] OJ L 375/1.

[52] These action programmes are 'plans and programmes' within the meaning of Directive 2001/42 on the assessment of the effects of certain plans and programmes on the environment [2001] OJ L 197/30. Joined cases C-105/09 and C-110/09 *Terre Wallone* ECLI:EU:C:2010:355.

[53] C-322/00 *Commission v Netherlands* ECLI:EU:C:2003:532, para 166.

[54] [2006] OJ L 64/37.

this by laying down provisions for the monitoring and classification of bathing water quality, the management of such quality, and the provision of information to the public on bathing water quality. Bathing water—that is, any element of surface water where the competent authority expects a large number of people to bathe and has not imposed a permanent bathing prohibition, or issued permanent advice against bathing—shall, based on monitoring and assessment be classified in accordance with certain criteria as 'poor', 'sufficient', 'good', or 'excellent'. Since the end of the 2015 bathing season all bathing waters shall be at least 'sufficient'.

10.3.4 Water for human consumption

There is also Directive 98/83/EC on the quality of water intended for human consumption.[55] Its objective is to protect human health from the adverse effects of any contamination of water intended for human consumption by ensuring that it is wholesome and clean. In order to qualify as wholesome and clean, the water must be free from any micro-organisms and parasites and from any substances which, in numbers or concentrations, constitute a potential danger to human health. It must also meet certain minimum requirements set out in an Annex. The Member States are furthermore required to set quality standards for water intended for human consumption in accordance with parameters set out in the same Annex.

10.3.5 Flood risks

Water is not only a resource that needs to be protected; it can also be the cause of much damage. This latter aspect of water is the focus of Directive 2007/60/EC on the assessment and management of flood risks, which establishes a framework for the assessment and management of flood risks, aiming at reduction of the adverse consequences for human health, the environment, cultural heritage, and economic activity associated with floods in the EU.[56] Member States are to undertake a preliminary flood risk assessment and identify those areas for which they conclude that potential significant flood risks exist or might be considered likely to occur. Based on hazard maps and flood risk maps, flood risk management plans must be established. It is emphasised that measures to reduce flood risks need to be coordinated throughout a river basin if they are to be effective.

10.4 The Marine Strategy Framework Directive (MSFD)

The EU and its Member States are all parties to the United Nations Convention on the Law of the Sea (UNCLOS),[57] which provides a legal framework for most

[55] [1998] OJ L 330/32. [56] [2007] OJ L 288/27.

[57] United Nations Convention on the Law of the Sea (UNCLOS) (10 December 1982, Montego Bay) 1833 UNTS 3.

human activities at sea or that directly affect the sea. UNCLOS also defines the marine jurisdictional zones which determine what competences States have in relation to different parts of the sea and different activities. The EU's Sixth Environment Action Programme from 2002 identified promoting sustainable use of the seas and conservation of marine ecosystems as a priority area for action and called for the elaboration of a thematic strategy for the protection and conservation of the marine environment.[58] This led to the Commission presenting, in 2007, An Integrated Maritime Policy for the European Union.[59] The strategy, which holds the seas to be 'Europe's lifeblood', is based on the recognition that all matters relating to Europe's oceans and seas are interlinked, and that sea-related policies must be developed in a joined-up way. Among the specific projects endorsed by the strategy are the development of a European strategy for marine research; national integrated maritime policies, to be developed by Member States; a European network for maritime surveillance; and a roadmap towards maritime spatial planning by Member States. The environmental pillar of the Integrated Maritime Policy is the Marine Strategy Framework Directive adopted in 2008, that is, one year after the strategy.

Consistent with the idea of an integrated maritime policy, Directive 2008/56/EC establishing a framework for community action in the field of marine environmental policy (MSFD) aims to ensure the integration of environmental concerns into policies, agreements, and legislative measures which have an impact on the marine environment[60] (Art 1). It is based on a previous Treaty article corresponding to the current Article 192(1) TFEU and thus belongs to the environmental policy of the Union.

The MSFD describes the marine environment as a precious heritage that must be protected, preserved, and, where practicable, restored with the ultimate aim of maintaining biodiversity and providing diverse and dynamic oceans and seas which are clean, healthy, and productive. However, the pressure on natural marine resources and the demand for marine ecological services are often too high and the EU needs to reduce its impact on marine waters. The framework provided by the MSFD should enable the required action to be coordinated, consistent, and properly integrated with action under other EU legislation and international agreements.[61]

The Directive should support the position taken by the EU in the context of the Convention on Biological Diversity. It should also contribute to the fulfilment of the obligations and commitments of the EU and its Member States under several international agreements relating to the protection of the marine environment from pollution, among them the Helsinki Convention, the OSPAR Convention, and the Barcelona Convention.[62]

[58] Decision No 1600/2002/EC of the European Parliament and of the Council laying down the Sixth Community Environment Action Programme [2002] OJ L 242/1.

[59] Communication from the Commission—An Integrated Maritime Policy for the European Union (10 October 2007) COM(2007) 575 final.

[60] Directive 2008/56/EC of the European Parliament and of the Council establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive) [2008] OJ L 164/19.

[61] Preambular paras 2, 3, and 9.

[62] Preambular paras 18 and 19. On these conventions see notes 9–11.

Like the WFD, the MSFD has the attainment of good status in the water bodies concerned as its main focus. Within the framework established by the MSFD, the Member States are obliged, subject to some exceptions, to take the necessary measures to achieve or maintain good environmental status (GES) in the marine environment by the year 2020 at the latest. This is to be done through the development and implementation of marine strategies by each Member State. These strategies shall protect and preserve the marine environment, prevent its deterioration, or, where practicable, restore marine ecosystems in areas where they have been adversely affected. They shall furthermore prevent and reduce inputs in the marine environment, with a view to phasing out certain pollution so as to ensure that there are no significant impacts on or risks to marine biodiversity, marine ecosystems, human health, or legitimate uses of the sea. (Art 1.)

An important feature is that the marine strategies are to apply an ecosystem-based approach to the management of human activities.[63] They shall ensure that the collective pressure of such activities is kept within levels compatible with the achievement of GES and that the capacity of marine ecosystems to respond to human-induced changes is not compromised, while enabling the sustainable use of marine goods and services by present and future generations. Adaptive management on the basis of the ecosystem approach shall be applied with the aim of attaining GES. (Arts 1 and 3.)

The MSFD has an extensive scope. It applies to all so-called marine waters in the European territories of the Member States. That includes waters, the seabed, and subsoil on the seaward side of the baseline[64] extending to the outmost reach of the area where a Member State has and/or exercises jurisdictional rights in accordance with UNCLOS. That area includes the territorial sea and the continental shelf, as well as the exclusive economic zone (EEZ) and the contiguous zone to the extent that the latter zones have been claimed by the Member State concerned.[65] Also, 'coastal waters' as defined by the WFD (Directive 2000/60/EC), their seabed, and their subsoil fall under the MSFD, but only with respect to particular aspects of the environmental status of the marine environment that are not already addressed through the WFD or other EU legislation.[66] Effects on the quality of the marine environment of third States are also to be taken account of. (Arts 2 and 3.)

[63] The MSFD does not provide a definition of 'ecosystem-based approach'. For a discussion of this concept, see V De Lucia 'Competing Narratives and Complex Genealogies: The Ecosystem Approach in International Environmental Law' (2015) 27 *Journal of Environmental Law* 91–117.

[64] The 'baseline' is the low-water line along the coast as marked on large-scale charts officially recognised by the coastal state (normal baseline). Where the coastline is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity, so-called straight baselines may be drawn by joining appropriate points on the coast or on certain elevations. On the drawing of such baselines see further UNCLOS (n 57), Art 7.

[65] Regarding these zones see eg Y Tanaka *The International Law of the Sea* (Cambridge University Press, 2012).

[66] According to Art 2 of the WFD, 'coastal water' means surface water on the landward side of a line, every point of which is at a distance of one nautical mile on the seaward side from the nearest point of the baseline from which the breadth of territorial waters is measured, extending where appropriate up to the outer limit of so-called transitional waters.

The MSFD is based on the recognition that the diverse conditions, problems, and needs of the various marine regions or subregions that make up the marine environment in the EU require different and specific solutions. That diversity should be taken into account at all stages of the preparation of marine strategies, but especially during the preparation, planning, and execution of measures to achieve GES at the level of marine regions or subregions. To that end the Member States must take due account of the fact that marine waters covered by their sovereignty or jurisdiction form an integral part of one or more of four major marine regions: the Baltic Sea; the North-east Atlantic Ocean; the Mediterranean Sea; and the Black Sea. Of these, the North-east Atlantic and the Mediterranean are further divided into subregions, the specificities of which the Member States concerned may take into account when implementing the Directive. (Art 4.)

10.4.1 Targets, strategies, and monitoring

Each Member State shall, in respect of each marine (sub)region concerned, develop a marine strategy for its marine waters. With respect to shared (sub)regions, the Member States concerned shall cooperate to ensure that the measures required to achieve the objectives of the MSFD are coherent and coordinated across the (sub) region. To that end they shall endeavour to follow a common approach. (Art 8.)

For each (sub)region an initial assessment was to be completed by 15 July 2012. It had to comprise: (a) an analysis of the essential features and characteristics and current environmental status of the waters concerned, covering the physical and chemical features, the habitat types, the biological features, and the hydromorphology; (b) an analysis of the predominant pressures and impacts, including human activity, on the environmental status of those waters; and (c) an economic and social analysis of the use of those waters and of the cost of degradation of the marine environment. The assessments under points (a) and (b) had to consider the indicative lists of elements set out in Annex III.

In this work every effort was to be made to ensure that assessment methodologies were consistent across the marine (sub)region. The Commission was to be notified of the assessment. (Arts 5, 8, and 9.)

By the same date, and by reference to the initial assessment, GES was to be established for the waters concerned together with a series of environmental targets, that is, qualitative or quantitative statements on the desired condition of the different components of, and pressures and impacts on, marine waters, and associated indicators to guide progress towards achieving such status (Arts 3, 5, and 10).

The MSFD provides a general description according to which 'good environmental status' means the environmental status of marine waters where these provide ecologically diverse and dynamic oceans and seas which are clean, healthy, and productive within their intrinsic conditions, and the use of the marine environment is at a level that is sustainable, thus safeguarding the potential for uses and activities by current and future generations. This entails, inter alia, that marine species and habitats are protected, human-induced decline of biodiversity is prevented, and diverse biological components function in balance. Anthropogenic inputs of substances

and energy, including noise, into the marine environment must not cause pollution effects. (Art 3.)

However, the more precise meaning of GES is determined individually for each marine (sub)region on the basis of eleven qualitative descriptors set out in Annex I. Member States shall consider each of the descriptors in order to identify those descriptors which are to be used to determine GES for the specific (sub)region. If a Member State considers that it is not appropriate to use one or more of the descriptors, it must provide the Commission with a justification.

As for environmental targets, indicative lists of characteristics and of pressures and impacts to be taken into account for setting such targets are found in Annexes III and IV. The targets and indicators shall take into account relevant existing environmental targets laid down at national, EU, or international level in respect of the same waters and must be notified to the Commission. The Commission has decided criteria and methodological standards for assessing the extent to which GES is being achieved.[67] (Art 10.)

Monitoring programmes for on-going assessment and regular updating of targets was to be in place by 15 July 2014, except where otherwise specified in the relevant EU legislation. Coordination is required since the programmes must be compatible within marine (sub)regions and shall build upon, and be compatible with, relevant provisions for assessment and monitoring laid down by EU legislation, or under international agreements. Member States sharing a marine (sub) region shall endeavour to ensure that the monitoring methods are consistent across the (sub)region so as to facilitate comparability of monitoring results. Specifications and standardised methods for monitoring and assessment are to be adopted at EU level but had not been so at the time of writing. The monitoring programmes must be notified to the Commission. (Arts 5 and 11.)

The Commission is to assess, based on all the notified assessments, characteristics, environmental targets, and monitoring programmes in respect of each marine (sub)region, whether the elements notified constitute an appropriate framework to meet the requirements of the MSFD (Art 12). In its assessment of the first phase of implementation of the MSFD, the Commission found the quality of reporting to vary widely from country to country and from one descriptor to another. For example, Member States reported on different species and habitats lists, some of them ignoring those set by the Habitats Directive (Directive 92/43/EEC), some ignoring habitats present in their waters. Member States also widely failed to establish a baseline, thereby making it harder, and in some cases impossible, to assess the distance to target. Also, coherence between neighbouring countries within the same marine region varies widely across the EU, with Member States in the North East Atlantic showing the highest level of coherence and coherence being lowest in the Mediterranean, and in particular in the Black Sea.[68]

[67] Commission Decision 2010/477/EU on criteria and methodological standards on good environmental status of marine waters [2010] OJ L 232/14.

[68] Report from the Commission—The first phase of implementation of the Marine Strategy Framework Directive (2008/56/EC) The European Commission's assessment and guidance (20 February 2014) COM(2014) 97 final, 4–7.

10.4.2 Programmes of measures

Based on the initial assessment and by reference to the environmental targets, the Member States must, in respect of each marine (sub)region concerned, devise the measures which need to be taken in order to achieve or maintain GES. Consideration must be given to the types of measures listed in Annex VI. Among these are input and output controls, measures that influence where and when an activity is allowed to occur, measures to improve the traceability of marine pollution and economic incentives. The measures shall be cost-effective and technically feasible. Impact assessments, including cost–benefit analyses, are to be carried out prior to the introduction of a new measure.

The measures shall be integrated into a programme of measures, designed to achieve or maintain GES, to be developed by 2015 and put into operation by 2016 at the latest. Such programmes of measures must indicate how the measures are to be implemented and how they will contribute to the achievement of the environmental targets. (Arts 5 and 13.)

When drawing up the programme of measures, consideration must be given to relevant measures required by other EU legislation, in particular the WFD, the Directive on urban waste-water treatment (Directive 91/271/EEC), and the Bathing Water Directive (Directive 2006/7/EC), as well as legislation on EQS in the field of water policy and international agreements. Due consideration shall also be given to sustainable development and, in particular, to the social and economic impacts of the measures envisaged. It should be noted that consideration of social and economic impacts does not justify non-fulfilment of the obligation to achieve GES (exemptions are discussed presently).

The programmes of measures shall include spatial protection measures contributing to coherent and representative networks of marine protected areas, adequately covering the diversity of the constituent ecosystems, such as special areas of conservation pursuant to the Habitats Directive, special protection areas pursuant to the Birds Directive, and marine protected areas as agreed by the EU or Member States concerned in the framework of international or regional agreements to which they are parties.[69] (Art 13.)

The Commission and any other Member State concerned must be notified of the programmes of measures. It is then for the Commission to assess whether the programmes constitute an appropriate framework to meet the requirements of the Directive and to provide guidance on any modifications it considers necessary. (Art 16.)

10.4.3 Exceptions

As with the WFD, a number of exceptions apply which may justify non-achievement of the environmental targets or GES in every aspect through measures taken by the

[69] On the establishment of such areas, see Report from the Commission on the progress in establishing marine protected areas (as required by Article 21 of the Marine Strategy Framework Directive 2008/56/EC) (1 October 2015) COM(2015) 481 final.

Member State concerned. Such justifying factors are: (a) action or inaction for which the Member State concerned is not responsible; (b) natural causes; (c) force majeure; (d) modifications or alterations to the physical characteristics of marine waters brought about by actions taken for reasons of overriding public interest which outweigh the negative impact on the environment, including any transboundary impact; and (e) natural conditions which do not allow timely improvement in the status of the marine waters concerned. Any such instances must be clearly identified in the programme of measures and the Member State shall substantiate its view to the Commission. (Art 14.)

Even if an exception applies, the Member State concerned must take appropriate ad hoc measures aiming to continue pursuing the environmental targets, to prevent further deterioration in the status of the marine waters affected by natural causes, force majeure, or modifications or alterations (ie points b–d above) and to mitigate the adverse impact at the level of the marine (sub)region concerned or in the marine waters of other Member States. The ad hoc measures shall be integrated as far as practicable into the programmes of measures. Modifications or alterations may not permanently preclude or compromise the achievement of GES at the level of the marine (sub)region concerned or in the marine waters of other Member States. (Art 14.)

A further important exception is that Member States are not required to take any specific steps, except for those associated with the initial assessment, where there is no significant risk to the marine environment, or where the costs would be disproportionate taking account of the risks to the marine environment.

It is not hard to see how the rather open-ended exceptions, not least the one relating to disproportionate costs, could be used in a way that may significantly erode the effect of the Directive.[70] At least, not taking any steps is only permissible if it does not result in further deterioration of the status of the marine waters affected. A Member State making use of an exception must also provide the Commission with the necessary justification to substantiate its decision and must avoid permanent compromise of the achievement of GES. (Art 14.)

Just like the WFD, the MSFD operates based on six-year cycles. While the Member States are generally obliged to ensure that their marine strategies are kept up to date, they must review the initial assessment, the determination of GES, the environmental targets, the monitoring programmes, and the programmes of measures every six years after their initial establishment. (Art 17.)

In line with its ambition to promote coordination and coherence, the MSFD contains a number of provisions requiring Member States to initiate processes at EU or international level when needed to achieve the Directive's objectives. This is particularly pertinent considering that much effort has been put into developing a number of regional marine agreements, such as the Helsinki, OSPAR, and Mediterranean

[70] On this concern, see R Long 'The Marine Strategy Framework Directive: A New European Approach to the Regulation of the Marine Environment, Marine Natural Resources and Marine Ecological Services' (2011) 29 *Journal of Energy & Natural Resources Law* 1–44, 36–7.

Conventions, through which the Member States concerned work to develop and coordinate marine environment policy not only among themselves but also with non-EU States that are coastal states or located within the catchment area of the seas surrounding the EU. There is thus a strong case, both in terms of administrative efficiency and environmental efficacy, for building on and strengthening the existing structures rather than duplicating them. But there are also considerable challenges associated with using non-EU legal structures as instruments for furthering environmental standards and mechanisms set by the Union.[71] The inevitable transboundary nature of marine environmental problems and the existence of multiple EU policies affecting the marine environment also necessitates internal coordination within the Union.

To start with, any Member State that identifies any issue which has an impact on the environmental status of its marine waters but which cannot be tackled by measures taken at national level, or which is linked to another EU policy or to an international agreement, shall inform the Commission and provide a justification to substantiate its view. The Commission is then required to respond within six months. In cases where action by EU institutions is needed, Member States shall make appropriate recommendations to the Commission and the Council. The Commission is then obliged not only to respond but also, with some exceptions and as appropriate, to reflect the recommendations when presenting related proposals to the EP and to the Council. (Art 15.)

Furthermore, Member States that consider the management of a human activity at EU or international level to be likely to have a significant impact on the marine environment, particularly marine protected areas, shall address the competent authority or international organisation concerned with a view to the consideration and possible adoption of measures that may be necessary in order to achieve the objectives of the Directive (Arts 6 and 13).

There is also a general obligation on the Member States to use existing regional institutional cooperation structures to achieve coordination across a marine (sub) region where practical and appropriate. For the purpose of establishing and implementing the marine strategies they shall make every effort, using relevant international forums, including mechanisms and structures of regional sea conventions,[72] to coordinate their actions with third countries having jurisdiction over waters in the same marine region or subregion. In that context they shall, as far as possible, build upon relevant existing programmes and activities. Where appropriate, coordination and cooperation should also involve all Member States in the catchment area of a marine region or subregion. (Art 6.)

The MSFD contains provisions on public consultation and information, including an obligation to ensure that all interested parties are given early and effective

[71] B Bohman and D Langlet 'Float or Sinker for Europe's Seas?—The Role of Law in Marine Governance' in K Kern and M Gilek (eds) *Governing Europe's Marine Environment: Europeanization of Regional Seas or Regionalization of EU Policies?* (Ashgate, 2015) 53–73.

[72] 'Regional sea conventions' refers to the international conventions or international agreements together with their governing bodies established for the purpose of protecting the marine environment of the marine regions identified in the MSFD. Art 3.

opportunities to participate in the implementation of the Directive, and to make available to the public for comment summaries of listed elements of the marine strategies (Art 19).

The MSFD is a quintessential framework directive, which emphasises procedural obligations, including coordination of existing standards and structures. This, together with the emphasis on cost efficiency and the weighing up of environmental and economic benefits, is likely to make it challenging to assess compliance and determine to what extent the MSFD contributes to improvement of the marine environment.

10.5 Ship-related Pollution

Pollution from ships or from activities associated with maritime transport is addressed in a considerable number of EU legal acts, most of which will be mentioned only briefly here.[73]

10.5.1 Ship-source pollution and penalties for infringements

What may be characterised as the core piece of EU legislation in this area is Directive 2005/35/EC on ship-source pollution and on the introduction of penalties for infringements.[74] It incorporates international standards for ship-source pollution, in effect the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78),[75] into EU law and also aims to ensure that persons responsible for discharges of polluting substances are subject to adequate penalties. The Directive is based on a Treaty article corresponding to the current Article 100(2) TFEU relating to sea and air transport. It applies to discharges of polluting substances from any ship, irrespective of its flag, except ships used only on government non-commercial service. It does not prevent Member States from taking more stringent measures against ship-source pollution in conformity with international law. (Arts 1 and 3.)

The Member States shall ensure that ship-source discharges of polluting substances, including minor cases of such discharges, into the internal waters of a Member State,[76] the territorial sea of a Member State, straits used for international navigation and subject to the jurisdiction of a Member State, the EEZ or equivalent zone of a Member State, and the high seas are regarded as infringements if committed with intent, recklessly, or with serious negligence.

Each Member State must ensure that any natural or legal person who has committed such an infringement can be held liable therefor. Exemptions apply with respect to some discharges allowed under MARPOL 73/78. (Arts 3–5.)

[73] For a thorough, if slightly dated, account of this field of EU law, see H Ringbom *The EU Maritime Safety Policy and International Law* (Brill Nijhoff, 2008).

[74] [2005] OJ L 255/11.

[75] International Convention for the Prevention of Pollution from Ships as amended by its 1978 protocol (MARPOL 73/78) 1340 UNTS 184.

[76] Internal waters, including ports, are only covered in so far as the MARPOL regime is applicable.

Infringements are to be regarded as criminal offences except for minor cases, where the act committed does not cause deterioration in the quality of water. Such offences shall be punishable by effective, proportionate, and dissuasive criminal penalties. There must also be dissuasive penalties applicable to legal persons (Arts 5a, 8a, and 8b). The provisions of the Directive must be applied in accordance with applicable international law, including UNCLOS (Art 9). This means that in most cases monetary penalties only may be imposed with respect to foreign vessels, even though State practice is increasingly moving in the direction of also using imprisonment as a penalty for serious pollution of the marine environment.

The Directive has provisions on enforcement measures with respect to ships within a port and ships in transit (Arts 6 and 7).

Originally the Directive was supplemented by Council Framework Decision 2005/667/JHA to strengthen the criminal law framework for the enforcement of the law against ship-source pollution.[77] But in 2007 that was annulled by the Court of Justice for having been based on the wrong legal basis.[78] This led to the incorporation, through an amendment in 2009,[79] into the Directive of many of the elements of the Framework Decision.

The validity of core parts of the Directive has been challenged on the ground that they would be incompatible with provisions in MARPOL 73/78 and UNCLOS, for example by laying down that liability is to be incurred for serious negligence. However, the Court of Justice found that the Directive's validity could not be assessed in the light of either MARPOL 73/78 or UNCLOS, due to the nature of these agreements and their status in EU law.[80] (See further section 4.7.2.)

10.5.2 Other acts on ship-related pollution

Regulation (EC) No 782/2003 on the prohibition of organotin compounds on ships aims to reduce or eliminate adverse effects on the marine environment and human health caused by organotin compounds, especially tributyltin (TBT), which act as active biocides in anti-fouling systems used on ships.[81] It applies to ships flying the flag of a Member State as well as to ships, regardless of flag, that sail to or from ports of the Member States. It transforms the 2001 International Convention on the Control of Harmful Anti-fouling Systems on Ships (AFS Convention) into EU law.[82] TBT is seen as a serious threat to marine organisms

[77] [2005] OJ L 255/164.

[78] Case C-440/05 *Commission v Council* ECLI:EU:C:2007:625.

[79] Directive 2009/123/EC of the European Parliament and of the Council amending Directive 2005/35/EC on ship-source pollution and on the introduction of penalties for infringements [2009] OJ L 280/52.

[80] Case C-308/06 *Intertanko and Others* ECLI:EU:C:2008:312.

[81] Regulation (EC) No 782/2003 of the European Parliament and of the Council on the prohibition of organotin compounds on ships [2003] OJ L 115/1. An 'anti-fouling system' is a coating, paint, surface treatment, surface, or device that is used on a ship to control or prevent attachment of unwanted organisms.

[82] International Convention on the Control of Harmful Anti-fouling Systems on Ships (London, 5 October 2001) AFS/CONF/26.

and the Regulation not only prohibits the application of organotin compounds which act as biocides but also requires, from 2008, that ships either not bear such compounds which act as biocides in anti-fouling systems on their hulls or bear a coating that forms a barrier to such compounds leaching from the underlying anti-fouling system.

Another piece of EU legislation that implements parts of MARPOL 73/78 in EU law is Regulation (EU) No 530/2012 on the accelerated phasing in of double-hull or equivalent design requirements for single-hull oil tankers.[83] With some exceptions, only double-hull oil tankers are allowed to operate under the flag of a Member State and to enter into ports or offshore terminals under the jurisdiction of a Member State. The purpose is to achieve a higher degree of protection against accidental oil pollution in the event of collision or stranding.

A directive on port reception facilities for ship-generated waste and cargo residues and another on ship recycling are both dealt with in Chapter 12 on waste. Action against the introduction of invasive alien species through ballast water is to some extent addressed by Regulation (EU) No 1143/2014 on the prevention and management of the introduction and spread of invasive alien species, which is discussed in Chapter 15 on biological diversity.

Through Regulation (EC) No 1406/2002 establishing a European Maritime Safety Agency (EMSA), the EU has set up an agency that provides the Member States and the Commission with expertise and technical and scientific assistance needed for the proper application of EU legislation in the field of maritime safety and prevention of pollution by ships and for monitoring and evaluating the implementation and operation of such legislation.

The EU also has adopted a number of legal acts more specifically dealing with maritime safety.[84] These are not discussed here but may obviously benefit the marine environment, for example by preventing or mitigating the consequences of collisions, strandings, or other accidents.

Directive 2009/16/EC on port State control does not contain further substantive requirements regarding the environmental performance of ships.[85] It does, however, aim to increase compliance with international and EU legislation on, inter alia, maritime safety, maritime security, and protection of the marine environment, and thereby drastically reduce substandard shipping in the waters under the jurisdiction of Member States. It does so chiefly by implementing a port State control system, aiming at the inspection of all ships with a frequency depending on their risk profile.

[83] [2012] OJ L 172/3.

[84] Among these are Directive 2014/90/EU of the European Parliament and of the Council on marine equipment and repealing Council Directive 96/98/EC [2014] OJ L 257/146; Regulation (EC) No 336/2006 of the European Parliament and of the Council on the implementation of the International Safety Management Code within the Community and repealing Council Regulation (EC) No 3051/95 [2006] OJ L 64/1; and Directive 2002/59/EC of the European Parliament and of the Council establishing a Community vessel traffic monitoring and information system and repealing Council Directive 93/75/EEC [2002] OJ L 208/10.

[85] [2009] OJ L 131/57.

10.6 Offshore Oil and Gas Operations

The huge oil spill caused by the blow-out and subsequent sinking of the oil drilling rig Deepwater Horizon in the Gulf of Mexico in 2010 prompted the EU to adopt Directive 2013/30/EU on safety of offshore oil and gas operations.[86] It recognises that the risks relating to major offshore oil or gas accidents are significant and that major such accidents are likely to have devastating and irreversible consequences on the marine and coastal environment.[87]

To address this situation the Directive, which is based on Article 192(1) TFEU, establishes minimum requirements for preventing major accidents in offshore oil and gas operations and limiting the consequences of such accidents. More specifically, it sets out a number of general principles, including that operators shall be required to take all suitable measures to prevent major accidents and that they may not be relieved of their duties by the fact that actions or omissions contributing to major accidents were carried out by contractors.[88] Offshore oil and gas operations must be carried out on the basis of systematic risk management so that the residual risks of major accidents to persons, the environment and offshore installations are acceptable. The consequences for human health and for the environment of any major accidents that do occur must be limited. (Arts 1 and 3.)

The Directive applies to activities in the territorial sea, the EEZ, or the continental shelf of a Member State. However, all companies registered in the territory of a Member State and conducting, themselves or through subsidiaries, offshore oil and gas operations outside the Union shall be required to report to the Member State concerned, on request, the circumstances of any major accident in which they have been involved. Operators and owners registered in the territory of a Member State should also be expected (but not required) to apply, as far as possible, the same corporate major accident prevention policy when operating outside offshore waters of Member States as they do when operating in these waters.[89] (Arts 2 and 20.)

Operators are required to report on major hazards and to submit independently verified internal emergency response plans to the competent authorities. Operators and owners shall furthermore prepare a document setting out their corporate major accident prevention policy and ensure that it is implemented throughout their offshore oil and gas operations, including by setting up appropriate monitoring arrangements to assure effectiveness of the policy. (Arts 12–14, 17, and 19.)

Member States shall ensure that licensees are financially liable for the prevention and remediation of environmental damage caused by offshore oil and gas operations carried out by, or on behalf of, a licensee or an operator. (Art 7.)

[86] [2013] OJ L 178/66. [87] Preambular paras 4 and 6.

[88] It is stated in the preamble that the risk of a major accident should be reduced to the point at which the cost of further risk reduction would be grossly disproportionate to the benefits of such reduction (para 14).

[89] Preambular para 37.

National competent authorities must regularly exchange knowledge, information, and experience. The Directive also requires early and effective public participation on the possible effects of planned offshore oil and gas operations. (Arts 5 and 27.)

Member States without offshore oil and gas operations under their jurisdiction need only implement a few of the Directive's provisions (Art 32).

10.7 Maritime Spatial Planning

In 2014 the EU adopted a Directive 2014/89/EU establishing a framework for maritime spatial planning (MSPFD).[90] It has four legal bases in the TFEU, namely Articles 43(2), that is, the common agricultural and fisheries policies; 100(2), that is, sea and air transport; 192(1) on environment; and 194(2), that is, energy policy. The background is the recognition that the high and rapidly increasing demand for maritime space for different purposes, such as renewable energy production, oil and gas exploitation, maritime shipping and fishing activities, ecosystem and biodiversity conservation, tourism, and aquaculture, require an integrated planning and management approach.[91] As early as 2002 similar concerns, although pertaining to a more limited area, had spawned the adoption of Recommendation 2002/413/EC concerning the implementation of Integrated Coastal Zone Management in Europe.[92]

The framework established by the Directive aims at promoting the sustainable growth of maritime economies, the sustainable development of marine areas, and the sustainable use of marine resources. Its implementation should to the greatest extent possible build upon existing national, regional, and local rules and mechanisms, including those set out in the Recommendation on Integrated Coastal Zone Management.[93] It applies to marine waters, including coastal waters, of Member States as defined in the WFD. However, coastal waters or parts thereof falling under a Member State's town and country planning are exempted provided that this is communicated in the relevant maritime spatial plans. (Arts 1 and 2.)

For the purpose of the Directive, 'maritime spatial planning' (MSP) is understood as a process by which the relevant Member State's authorities analyse and organise human activities in marine areas to achieve ecological, economic, and social objectives. More specifically, MSP shall aim to contribute to a number of objectives. Among these are the sustainable development of energy sectors at sea, of maritime transport, and of the fisheries and aquaculture sectors, and the preservation, protection, and improvement of the environment, including resilience to climate change impacts. While not prejudging the competence of Member States

[90] [2014] OJ L 257/135. [91] Preambular para 1.

[92] Recommendation 2002/413/EC of the European Parliament and of the Council concerning the implementation of Integrated Coastal Zone Management in Europe [2002] OJ L 148/24.

[93] Preambular para 12.

to determine how different objectives are reflected and weighted in their maritime spatial plans, the Directive requires Member States to consider economic, social, and environmental aspects to support sustainable development and growth in the maritime sector, applying an ecosystem-based approach, and to promote the coexistence of relevant activities and uses. (Arts 3 and 5.)

The Member States are required to set up maritime spatial plans identifying the spatial and temporal distribution of relevant existing and future activities and uses. The plans must take into consideration relevant interactions of activities and uses. Although the Directive provides a list of such activities and uses, it is for the Member States themselves to decide the more precise content of their plans. The plans must be reviewed at least every ten years. (Arts 6 and 8.)

The Directive shall not interfere with Member States' competence to design and determine the extent and coverage of their maritime spatial plans or the format and content of those plans. Rather than introducing new sectorial policy targets the plans should reflect, integrate, and link the objectives defined by national or regional sectorial policies; identify steps to prevent or alleviate conflicts between different sectors; and contribute to the achievement of the Union's objectives in marine- and coastal-related sectorial policies.[94] Although the Member States are required to take into account land–sea interactions, the Directive does not apply to town and country planning. (Arts 2, 4, and 7.)

The Directive can thus only be characterised as light-handed and as paying more than usual deference to the sovereignty of the Member States even for a framework Directive. However, this is not too surprising considering that town and country planning, which is functionally closely related to MSP, is an area in which the Member States have been reluctant to yield authority to the Union.[95]

While the Directive is rather short on substance as to the content of the plans, it lays down minimum requirements for the procedures established to contribute to the objectives of MSP, that is, primarily the development of the plans. They must, inter alia, take into account land–sea interactions, as well as environmental, economic, social, and safety aspects; aim to promote coherence between maritime spatial planning and the resulting plan or plans and other processes, such as integrated coastal management; ensure the involvement of stakeholders; ensure transboundary cooperation between Member States; and promote cooperation with third countries. (Art 6.)

Means of public participation must be established by informing all interested parties and by consulting the relevant stakeholders and authorities and the public concerned, at an early stage in the development of maritime spatial plans (Art 9). Indeed, broad participation of stakeholders is likely to be key to generating knowledge about

[94] Proposal for a Directive of the European Parliament and of the Council establishing a framework for maritime spatial planning and integrated coastal management (12 March 2013) COM(2013)133 final, 5.

[95] According to Art 192(2) TFEU, the adoption of measures affecting town and country planning requires unanimity in the Council.

the suitability of specific areas for different uses and of the potential demand for such uses in the foreseeable future.

Member States bordering marine waters shall cooperate with the aim of ensuring that maritime spatial plans are coherent and coordinated across the marine region concerned. The cooperation shall be pursued through, inter alia, regional sea conventions and/or networks or structures of Member States' competent authorities (Art 11). The extent to which such cooperation becomes effective and concrete, for example by the development of common maps, the exchange of sufficiently detailed data, and the management of transboundary stakeholder involvement, is likely to determine the utility of MSP in relation to many marine regions.

Further Reading

L Baaner 'The Programme of Measures of the Water Framework Directive—More than Just a Formal Compliance Tool' (2011) 8 *Journal for European Environmental & Planning Law* 82–100

B Bohman and D Langlet 'Float or Sinker for Europe's Seas?—The Role of Law in Marine Governance' in K Kern and M Gilek (eds) *Governing Europe's Marine Environment: Europeanization of Regional Seas or Regionalization of EU Policies?* (Ashgate, 2015) 53–73

V De Lucia 'Competing Narratives and Complex Genealogies: The Ecosystem Approach in International Environmental Law' (2015) 27 *Journal of Environmental Law* 91–117

E Gawel 'Article 9 Water Framework Directive: Do We Really Need to Calculate Environmental and Resource Costs?' (2014) 11 *Journal for European Environmental and Planning Law* 249–71

H Josefsson 'Ecological Status as a Legal Construct—Determining its Legal and Ecological Meaning' (2015) 27 *Journal of Environmental Law* 231–58

A M Keessen and others 'European River Basin Districts: Are They Swimming in the Same Implementation Pool?' (2010) 22 *Journal of Environmental Law* 197–221

K Kern 'New Standards for the Chemical Quality of Water in Europe under the new Directive 2013/39/EU' (2014) 11 *Journal for European Environmental & Planning Law* 31–48

R Long 'The Marine Strategy Framework Directive: A New European Approach to the Regulation of the Marine Environment, Marine Natural Resources and Marine Ecological Services' (2011) 29 *Journal of Energy & Natural Resources Law* 1–44

S Möckel 'Small Water Bodies and the Incomplete Implementation of the Water Framework Directive in Germany' (2013) 10 *Journal for European Environmental & Planning Law* 262–75

M Young 'Building the Blue Economy: The Role of Marine Spatial Planning in Facilitating Offshore Renewable Energy Development' (2015) 30 *The International Journal of Marine and Coastal Law* 148–74

11

Climate and Energy

Facts and figures

In 2014 the EU was the third largest emitter of carbon dioxide with 10 per cent of world total after China (30 per cent) and the United States (15 per cent).

(Trends in global CO_2 emissions, 2015 Report)

In 2012 greenhouse gas emissions in the EU was 4682.9 million tonnes of CO_2-equivalents. That was an overall reduction of 17.9 per cent compared with 1990.

In 2013 fossil fuels accounted for 72.2 per cent of primary energy consumption in the EU whereas renewables accounted for 12.6 per cent.

(Eurostat: Energy, transport and environment indicators 2015)

11.1 Commitments, Distribution, and Monitoring

The EU committed itself to taking action against anthropogenic climate change in the early 1990s and has often played a leading role in the attempts to agree on and implement effective measures at international level for curbing greenhouse gas emissions.[1] The Union is party to the 1992 UN Framework Convention on Climate Change (UNFCCC)[2] and the 1997 Kyoto Protocol to the UNFCCC.[3] The Framework Convention aims to achieve stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.[4] This commitment was elaborated through

[1] On the early measures by the EC in the field of climate change policy, see L Krämer *EU Environmental Law* (7th edn, Sweet & Maxwell, 2012) 308–9.

[2] United Nations Framework Convention on Climate Change (UNFCCC) (New York, 9 May 1992) 1771 UNTS 107. The then EC approved of the Convention through 94/69/EC: Council Decision concerning the conclusion of the United Nations Framework Convention on Climate Change [1994] OJ L 33/11.

[3] Kyoto Protocol to the United Nations Framework Convention on Climate Change (Kyoto, 11 December 1997) 2303 UNTS 162. The EC approved of the Protocol by means of 2002/358/EC: Council Decision concerning the approval, on behalf of the European Community, of the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfilment of commitments thereunder [2002] OJ L 130/1.

[4] UNFCCC, Art 2.

the Kyoto Protocol by which the industrialised parties to the UNFCCC (the so-called Annex I parties) committed to quantified emission limitations compared to the baseline year of 1990. The extent of the reductions, or in some cases limited increases, undertaken by each Annex I party which is also party to the Protocol was specified in Annex B to the Protocol.

The initial Kyoto commitment period was 2008–12. The Protocol was eventually extended to cover a second period of 2013–20 but with significantly fewer States making commitments. In the 2011 Doha amendment, the EU and its Member States committed to an emissions reduction of at least 20 per cent by 2020.[5] Reaching a comprehensive international agreement proved very hard, with several high-level meetings making little progress. However, in late 2015 the so-called Paris agreement was concluded by the Parties to the UNFCCC.[6] While being much less specific about the commitments of individual Parties than the Kyoto Protocol, the Paris Agreement is most significant for committing all categories of Parties, developed and developing, to undertake climate change abatement measures. It is also seen as symbolically important that the Parties agree to hold the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above such levels. To this end each Party undertakes to prepare, communicate, and maintain successive nationally determined contributions (NDCs) that it intends to achieve. New NDCs are to be communicated every five years, thereby promoting progression in climate change mitigation. Domestic mitigation measures must be pursued with the aim of achieving the objectives of NDCs.[7]

The fifteen States that were EU members at the time of the adoption of the Kyoto Protocol decided to use the possibility for Parties to fulfil their commitments jointly.[8] The Union and these Member States were therefore jointly responsible for reducing their aggregate anthropogenic greenhouse gas emissions covered by the Protocol by 8 per cent compared to 1990.[9] However, this 8 per cent emission decrease was redistributed internally within the EU by means of the so-called Effort Sharing Decision of 2002.[10] A new such decision was taken in 2009, comprising also the States that had joined the Union since 2002.[11] The national efforts range from a 20 per cent increase in greenhouse gas emissions levels between 2005 and 2020 for Bulgaria to decreases of between 10 and 20 per cent for most old EU members.

[5] UNFCCC CMP 8, Decision 1/CMP.8 (28 February 2013) FCCC/KP/CMP/2012/13/Add.1, Annex I.

[6] See UNFCCC COP21, Draft decision -/CP.21 Adoption of the Paris Agreement. Proposal by the President (12 December 2015) FCCC/CP/2015/L.9/Rev.1, Annex.

[7] Ibid, Art 4.

[8] Regarding this possibility see Art 4 of the Kyoto Protocol.

[9] The greenhouse gases covered are set out in Annex A to the Protocol.

[10] Dec 2002/358/EC (n 3).

[11] Decision No 406/2009/EC of the European Parliament and of the Council on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020 [2009] OJ L 140/136.

In 2003 the EU adopted its emissions trading scheme (EU ETS) as its main instrument for reducing emissions of greenhouse gases in a cost-effective manner. Since it covers about 40 per cent of the EU's emissions, other measures were also needed. At its meeting in May 2007 the European Council made an independent commitment to achieve at least a 20 per cent reduction of greenhouse gas emissions by 2020 compared to 1990, and also endorsed, subject to certain conditions, as an EU objective to increase that reduction to 30 per cent as the Union's contribution to a global and comprehensive agreement for the period beyond 2012. A goal was also set to raise the share of EU energy consumption produced from renewable resources to 20 per cent by 2020. Furthermore, the Council adopted an energy plan aiming for increased energy efficiency in the EU so as to achieve the objective of saving 20 per cent of the EU's energy consumption compared to projections for 2020.[12]

These three targets, that is, a 20 per cent reduction in greenhouse gas emissions compared to 1990, at least 20 per cent energy from renewable resources, and saving 20 per cent of the EU's energy consumption compared to projections—all by 2020—are referred to as the EU's '20-20-20 by 2020' targets. In connection with this, the European Council also adopted as a target that at least 10 per cent of transport fuel in each Member State should be from renewable sources by 2020.[13]

11.1.1 The climate and energy package

In order to deliver on these targets, the so-called 'energy and climate change package' of legislative acts was agreed in 2008 and the different parts then formally adopted in the following year.[14] A core element of the package was the new effort-sharing decision previously discussed.[15]

Directive 2009/28/EC on the promotion of the use of energy from renewable sources was also a part of the package.[16] It translates the target of a 20 per cent share of energy from renewable sources in overall EU energy consumption by 2020 into individual targets for each Member State.[17] The highest target is set for Sweden, which is to have 49 per cent of energy from renewable sources in its gross final consumption of energy in 2020. Malta has the lowest target at 10 per cent, while Great Britain has committed to 15 per cent, Germany to 18 per cent, and France to 23 per cent. The individual contributions towards the overall EU target of 20 per cent energy from renewable sources have been calculated taking into account the Member States'

[12] Regarding the projections, see Communication from the Commission—Action Plan for Energy Efficiency: Realising the Potential (19 October 2006) COM(2006) 545 final.

[13] Ibid.

[14] Presidency Conclusion, Meeting of the European Council 11–12 December 2008 (13 February 2009) 17271/1/08 REV 1, 8.

[15] Dec 406/2009/EC (n 11).

[16] Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC [2009] OJ L 140/16.

[17] Ibid, Art 3 and Annex I.

different starting points and potentials, including the existing level of energy from renewable sources and the energy mix. The Directive also contains the controversial obligation that the share of energy from renewable sources in all forms of transport in each Member State in 2020 is to be at least 10 per cent of the final consumption of energy in transport in that Member State.[18] At the same time, an amendment to the Fuel Quality Directive introduced a mandatory target to achieve by 2020 a 6 per cent reduction in the greenhouse gas intensity of fuels used in road transport and non-road mobile machinery.[19] The main purpose of setting such mandatory targets for each Member State is to provide certainty for investors and to encourage continuous development of technologies which generate energy from renewable sources.[20]

The climate and energy package also contained new legislation on carbon capture and storage (CCS) and amendments to the Directive establishing the EU ETS entailing a gradual reduction in the number of emission allowances, so that by 2020 21 per cent fewer allowances are to be allocated compared to 2005.[21]

In 2011 the Commission published 'A Roadmap for moving to a competitive low carbon economy in 2050', in which it presents scenarios showing how a competitive low-carbon economy, implying reductions in domestic emissions by 80 per cent by 2050 compared to 1990, may be achieved. The roadmap is to be used as a basis for developing further sector-specific policy initiatives.[22]

11.1.2 The 2030 Climate and Energy Policy Framework

In preparation of the Conference of the Parties to the UNFCCC in Paris in December 2015 the European Council agreed, in October 2014, on a new '2030 Climate and Energy Policy Framework', with the intention to keep all the elements of the framework under review.[23] Through the policy framework the Council endorsed a binding EU target of at least 40 per cent domestic reduction in greenhouse gas emissions by 2030 compared to 1990. The Union also included that target in its nationally determined contribution submitted to the UNFCCC.[24] The target is to be delivered collectively by the EU in the most cost-effective manner possible, with reductions in the EU ETS and non-EU ETS sectors amounting to 43 per cent and 30 per cent, respectively, by 2030 compared to 2005. This will require a new

[18] Dir 2009/28/EC (n 16), Art 3.

[19] Directive 98/70/EC of the European Parliament and of the Council relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC [1998] OJ L 350/58.

[20] Ibid, preambular para 14.

[21] This was made effective through Directive 2009/29/EC of the European Parliament and of the Council amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community [2009] OJ L 140/63.

[22] Communication from the Commission—A Roadmap for moving to a competitive low carbon economy in 2050 (8 March 2011) COM(2011) 112 final, 4 and 14.

[23] European Council, 2014, European Council (23 and 24 October 2014): Conclusions on 2030 Climate and Energy Policy Framework, SN 79/14 (23 October 2014) 1.

[24] Submission by Latvia and the European Commission on behalf of the European Union and its Member States (6 March 2015) available at <http://www4.unfccc.int/submissions/INDC/Published%20Documents/Latvia/1/LV-03-06-EU%20INDC.pdf> (visited 15 January 2016).

effort-sharing decision with efforts distributed on the basis of relative GDP per capita.[25]

An EU target of at least 27 per cent is also set for the share of renewable energy consumed in the EU in 2030. This target will be binding at EU level. It will be fulfilled through Member States' contributions guided by the need to collectively deliver the EU target without preventing Member States from setting their own more ambitious national targets, as well as taking into account their degree of integration in the internal energy market.[26]

The policy framework furthermore sets an indicative target at the EU level of at least 27 per cent improved energy efficiency in 2030, compared to projections of future energy consumption. This is to be reviewed by 2020, having in mind an EU level of 30 per cent. The Commission will propose priority sectors in which significant energy efficiency gains can be reaped, and ways to address them at EU level. Targets will not be translated into nationally binding targets.[27]

When adopting the framework the Council called for a policy on how to include land use, land use change, and forestry into the 2030 greenhouse gas mitigation framework before 2020 and stressed the importance of a fully functioning and connected internal energy market, something that has proven very challenging to achieve in practice.[28]

According to projections, total EU greenhouse gas emissions in 2030 are estimated to be 27 per cent below 1990 levels. Additional measures are thus needed for the EU to meet the new 2030 target. In line with this, an amendment to the EU ETS was decided in late 2015 and the Commission is expected to make proposals to implement the non-ETS emissions reduction target of 30 per cent.[29] Changes to the EU ETS agreed are discussed presently in the relevant context.

In the following sections the EU ETS and the specific rules on carbon dioxide emissions from cars, the promotion of the use of energy from renewable sources, and the rules governing so-called carbon capture and storage (CCS) will be given closer attention. Finally, EU legislation relating to energy efficiency will be addressed. First, however, a few words on monitoring and reporting, that being a prerequisite for making any commitments and for participating in the international climate change regime.

11.1.3 Monitoring, accounting, and reporting

A mechanism for monitoring greenhouse gas emissions and removals by sinks[30] in the Member States was set up in 2004.[31] In 2013 the 2004 Decision was replaced

[25] Conclusions on 2030 Climate and Energy Policy Framework (n 23) 4. [26] Ibid, 5.
[27] Ibid, 6. [28] Ibid, 5 and 6.
[29] Report from the Commission—Climate action progress report, including the report on the functioning of the European carbon market and the report on the review of Directive 2009/31/EC on the geological storage of carbon dioxide (18 November 2015) COM(2015) 576 final, 5.
[30] A 'sink' is defined by the UNFCCC, Art 1, as any process, activity, or mechanism which removes a greenhouse gas, an aerosol, or a precursor of a greenhouse gas from the atmosphere.
[31] Decision No 280/2004/EC of the European Parliament and of the Council concerning a mechanism for monitoring Community greenhouse gas emissions and for implementing the Kyoto Protocol [2004] OJ L 49/1.

by a regulation in order, inter alia, to implement new monitoring and reporting requirements.[32] It requires the Member States to operate and seek to continuously improve national inventory systems, in accordance with UNFCCC requirements, to estimate anthropogenic emissions by sources and removals by sinks (Art 4), and establishes a Union inventory system administered by the Commission (Art 5). The Regulation furthermore provides for EU and Member State registries to be maintained to accurately account for the issue, holding, transfer, and so on of the different tradable credits issued under the Kyoto system (Art 7). There are also extensive provisions that aim to ensure timely and accurate reporting to the UNFCCC Secretariat by the Union and its Member States.

11.2 The EU ETS

Directive 2003/87/EC was adopted in 2003 to set up the EU ETS.[33] It has subsequently been amended substantially on three occasions. As early as 2004, through the 'linking Directive', the EU ETS was linked to the system set up by the Kyoto Protocol, thereby enabling use of credits from the so-called project-based mechanisms established by the Protocol, among them joint implementation (JI) and the clean development mechanism (CDM), for fulfilling obligations within the EU scheme.[34] In 2008 the Directive was amended in order to include aviation activities in the EU ETS,[35] and in 2009 further amendments were made as part of the climate and energy package, inter alia extending the coverage to some greenhouse gases other than carbon dioxide.[36] As will be further discussed in the relevant contexts presently, further amendments have been proposed to implement the 2030 Climate and Energy Policy Framework with respect to the EU ETS.[37]

Directive 2003/87/EC is based on an article corresponding to the current Article 192 TFEU and does not in principle prevent individual Member States from adopting more far-reaching requirements within the area covered by the Directive. As will be seen, however, approval by the Commission is needed for any Member State that wants to include additional installations or greenhouse gases in the scheme.

[32] Regulation (EU) No 525/2013 of the European Parliament and of the Council on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC [2013] OJ L 165/13.

[33] Directive 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC [2003] OJ L 275/32.

[34] Directive 2004/101/EC of the European Parliament and of the Council amending Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community, in respect of the Kyoto Protocol's project mechanisms [2004] OJ L 338/18.

[35] Directive 2008/101/EC of the European Parliament and of the Council amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community [2009] OJ L 8/3.

[36] Dir 2009/29/EC (n 21).

[37] Conclusions on 2030 Climate and Energy Policy Framework (n 23).

The scheme for emission allowance trading established by the Directive, which now includes thirty-one countries, including the EU Member States and the EEA States Iceland, Lichtenstein, and Norway, aims to promote reductions of greenhouse gas emissions in a cost-effective and economically efficient manner (Art 1).

The Directive applies to emissions from the activities listed in Annex I and the greenhouse gases listed in Annex II. The activities covered include, inter alia, combustion installations; oil refineries; installations for the production of pig iron or steel; installations for the production of cement; and industrial plants for the production of pulp from timber or other fibrous materials, paper, and board. In most cases only activities with a certain output, expressed, for example, as a minimum number of tonnes produced per day, are covered. All in all, more than 11,000 power stations and industrial plants are included.

In principle the Directive applies to six (groups of) greenhouse gases, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF_6). However, this list is largely theoretical since Annex I, specifying which gases are covered when emitted from which activities, only includes carbon dioxide, nitrous oxide, and perfluorocarbons, and the latter two only when emitted from one or two specific activities.[38] Thus in reality the EU ETS is largely a scheme for addressing emissions of carbon dioxide.

Member States must ensure that no installation carries out any activity listed in Annex I resulting in emissions specified in relation to that activity unless its operator holds a permit issued by a competent authority (Art 5). An application for such a permit must include a description of the measures planned to monitor and report emissions in accordance with guidelines adopted by the Commission.[39] A greenhouse gas emissions permit may be issued only if the competent national authority is satisfied that the operator is capable of monitoring and reporting emissions and the permit must contain a monitoring plan and reporting requirements. It must also follow from the permit that the operator has an obligation to surrender allowances equal to the total verified emissions of the installation in each calendar year within four months following the end of that year. At least every five years the permit must be reviewed by a competent authority and amendments made as appropriate. (Arts 4–6.)

An 'allowance' here means an allowance to emit one tonne of carbon dioxide equivalent during a specified period under the EU ETS. One tonne of carbon dioxide equivalent is the same as one tonne of carbon dioxide or an amount of any other greenhouse gas listed in Annex II with an equivalent global warming potential (Art 3). As an example, perfluoroethane, which belongs to the perfluorocarbons, has a global warming potential of 9,200 when measured over 100 years. The emission of one tonne of perfluoroethane thus equals the emission of 9,200 tonnes of carbon dioxide.

[38] Dir 2003/87/EC (n 33), Annexes I and II.

[39] See Commission Regulation (EU) No 601/2012 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council [2012] OJ L 181/30.

All emissions are converted into carbon dioxide equivalents, which is the standard unit for measuring and accounting greenhouse gas emissions.

Following consultation with the operator, a Member State may, under certain conditions, exclude from the EU ETS installations which have reported emissions of less than 25,000 tonnes of carbon dioxide equivalent in each of the three preceding years provided that they are subject to measures, to be notified to the Commission, that will achieve an equivalent contribution to emission reductions. Such an installation will then not require a greenhouse gas emissions permit. (Arts 4 and 27.)

Under certain conditions a Member State may also apply emission allowance trading in accordance with the Directive to activities and to greenhouse gases not listed in Annex I. Any such inclusion of activities or gases must be approved by the Commission and must consider, inter alia, the effects on the internal market, the environmental integrity of the EU ETS, and the reliability of planned monitoring and reporting systems. (Art 24.)

11.2.1 Allocation of allowances

Allowances can be allocated either for free based on historical emissions (a form of so-called grandfathering) or by auctioning. In the five-year period 2008–12, which was also the original commitment period of the Kyoto Protocol, at least 90 per cent of the allowances were to be allocated for free. In practice most Member States allocated close to 100 per cent for free. Until 2012 the cap for emissions from the trading sector, that is, the installations required by the Directive to have a permit, in each Member State was the total number of allowances which that Member State had allocated according to a national allocation plan (NAP). The allocation had to be based on 'objective and transparent criteria' and the NAP was to be notified to and assessed by the Commission. The Commission's assessment of the NAPs, including the interpretation of the objective and transparent criteria, gave rise to several disputes between Member States and the Commission.[40]

Since 2013, which was the start of the third phase of the EU ETS, an EU-wide cap has applied to the whole trading sector. This is based on the total number of allowances allocated by the Member States, through NAPs approved by the Commission, for the period 2008–12. In 2013 the total quantity of allowances allocated was just below 2.04 billion. This quantity is then decreased annually by 1.74 per cent of the average annual total quantity of allowances issued by Member States for the period 2008–12. This means an annual decrease of approximately 38 million allowances and should by 2020 result in emissions from covered sectors being 21 per cent below those in 2005 (Art 9).

In 2014 the European council agreed that from 2021 onwards the annual reduction factor will instead be 2.2 per cent.[41]

[40] See eg Case C-504/09 P *Commission v Poland* ECLI:EU:C:2012:178.
[41] Conclusions on 2030 Climate and Energy Policy Framework (n 23) 2.

In the third phase of the EU ETS auctioning is the default system for allocation of allowances, at least in principle. The Directive contains rather detailed rules on how to determine the total quantity of allowances to be auctioned by each Member State. Almost 90 per cent of the allowances to be auctioned are distributed among Member States in shares that are identical to the share of verified emissions under the EU ETS for 2005 or the average of the period from 2005 to 2007. At least 50 per cent of the revenues generated from the auctioning should be used for tackling climate change. This may be done, inter alia, by reducing greenhouse gas emissions, including by contributing to the Global Energy Efficiency and Renewable Energy Fund, by developing renewable energies, and by measures intended to increase energy efficiency and insulation. (Art 10.)

According to a proposed amendment, 57 per cent of the allowances are to be auctioned by Member States from 2021 onwards. Additionally, 2 per cent of the total quantity of allowances between 2021 and 2030 is to be auctioned to establish a fund to improve energy efficiency and modernise the energy systems of certain Member States.[42]

Due to, inter alia, the global financial crisis of 2007–8 and high imports of international credits into the EU trading system, a surplus of emission allowances has built up, resulting in a very low price for such allowances and, as a consequence, a weak impact of the EU ETS on investment decisions relating to the covered installations. To deal with this the Commission postponed the auctioning of 900 million allowances until 2019–20 (so-called 'back-loading').[43] To address the problem for the longer term, a so-called market stability reserve, operational as of 2019, has also been established.[44] Instead of being added to the volumes to be auctioned in 2019 and 2020, 900 million allowances deducted from auctioning volumes during the period 2014–16 are to be placed in the reserve. A procedure is also established according to which each year a number of allowances equal to 12 per cent of the total number in circulation shall be deducted from the volume to be auctioned and be placed in the reserve, unless the number of allowances to be placed in the reserve were less than 100 million. These allowances are then to be added to auction volumes if the relevant total number of allowances in circulation falls below 400 million.[45] This is intended to counter large fluctuations in the number of allowances on the market and hence their price. An amendment to the Directive has also been introduced to counter sharp changes in supply due to transition from one trading period to another.[46]

[42] Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments (15 July 2015) COM(2015) 337 final, Art 1.

[43] Commission Regulation (EU) No 1210/2011 amending Regulation (EU) No 1031/2010 in particular to determine the volume of greenhouse gas emission allowances to be auctioned prior to 2013 [2011] OJ L 308/2.

[44] Decision (EU) 2015/1814 of the European Parliament and of the Council concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and amending Directive 2003/87/EC [2015] OJ L 264/1.

[45] Ibid, Art 1.

[46] Dir 2003/87/EC (n 33), Art 10 (1a).

According to the European Council's decision in 2014, 10 per cent of the allowances to be auctioned by the Member States are in future to be distributed among those countries whose GDP per capita did not exceed 90 per cent of the EU average in 2013, whereas the rest will be distributed on the basis of verified emissions. A new reserve of 2 per cent of the EU ETS allowances is to be set aside to address particularly high additional investment needs in low-income Member States.[47]

The Directive also contains rather complex rules on free allocation of emission allowances[48] (Art 10a). With some exceptions, no free allocation is to be made to electricity production. With respect to manufacturing, the picture is quite different. Not counting specific support measures, the manufacturing industry received 80 per cent of its allowances for free in 2013. This proportion decreases in a linear fashion each year to reach 30 per cent in 2020.

A very important exception is that installations in sectors or subsectors deemed to be exposed to a significant risk of carbon leakage shall be allocated allowances free of charge at 100 per cent of a benchmark. Carbon leakage does not refer to the physical emission or other escape of carbon dioxide, but to the relocation of greenhouse gas-emitting production from the EU to countries where lower or no costs are imposed on such emissions. The sectors at risk of leakage are hence sectors with competition from countries without an emission reduction scheme or similar policy measures.

Based on criteria set out in the Directive, the Commission has published a list of sectors and subsectors which are deemed to be exposed to a significant risk of carbon leakage.[49] The list includes a large number of manufacturing and extraction industries, such as manufacture of basic iron and steel and of ferro-alloys, of paper and paperboard, of refined petroleum products, and of cement and lime, as well as mining of most metal ores. The Commission is required to draw up a new list every five years.

In order to provide incentives for reductions in greenhouse gas emissions and energy-efficient techniques, the free allocation is to be based on product benchmarks for individual sectors or subsectors. The starting point for setting such benchmarks is the average performance of the 10 per cent most efficient installations in the sector or subsector in the EU in the years 2007–8 (Art 10a). The product benchmarks and applicable system boundaries are set out in a decision on rules for harmonised free allocation of emission allowances which also contains rules on allocation of emission allowances to new entrants.[50] The main implication

[47] Conclusions on 2030 Climate and Energy Policy Framework (n 23) 4.

[48] The Court of Justice has made clear that the imposition of a gift tax on the allocation of emission allowances is precluded to the extent that allowances which according to the Directive are to be allocated free of charge are affected by such a tax. Case C-43/14 *ŠKO–Energo* ECLI:EU:C:2015:120.

[49] Commission Decision 2014/746/EU determining, pursuant to Directive 2003/87/EC of the European Parliament and of the Council, a list of sectors and subsectors which are deemed to be exposed to a significant risk of carbon leakage, for the period 2015 to 2019 [2014] OJ L 308/114.

[50] Commission Decision 2011/278/EU determining transitional Union-wide rules for harmonised free allocation of emission allowances pursuant to Article 10a of Directive 2003/87/EC of the European Parliament and of the Council [2011] OJ L 130/1.

of the system for free allocation is that installations whose emissions are in line with applicable benchmarks in principle get free allocation of allowances for all their emissions, while less efficient industries will need to lower their emissions or buy allowances.

In *Iberdrola* the Court of Justice was asked whether a Spanish measure providing for the remuneration of electricity production to be reduced by an amount equivalent to the value of the emission allowances was incompatible with the free allocation of allowances.[51] The purpose of the Spanish measure was to prevent so-called windfall profits made by producers who are able to pass on the value of allowances allocated for free in electricity prices. The Court found that Article 10 of the Directive does not prevent Member States from taking measures the purpose and effect of which are to reduce remuneration for electricity production by an amount equal to the increase in such remuneration brought about through the incorporation, in the selling prices offered on the wholesale electricity market, of the value of emission allowances allocated free of charge.[52]

According to the 2014 European Council Conclusions on the 2030 Climate and Energy Policy Framework, free allocation is to be maintained to prevent carbon leakage. The benchmarks for free allocations are to be periodically reviewed in line with technological progress and both direct and indirect carbon costs will be taken into account. Future allocations should ensure better alignment with changing production levels in different sectors, ensure affordable energy prices, and avoid windfall profits. Member States with a GDP per capita below 60 per cent of the EU average will be allowed to continue to give free allowances to the energy sector up to 2030.[53]

11.2.2 Aviation in the EU ETS

The EU has long argued for the necessity of making aviation contribute to emission reductions globally through technological improvements or by offsetting its growth in emissions through the funding of emission reductions in other sectors, but international consensus on such measures has been elusive. From 1 January 2012 aviation has been included in the EU ETS, the overall principle being that all flights which depart from or arrive in the territory of a Member State are covered.[54] Some flights are exempted, including military and police flights and flights performed by small commercial air transport operators. The application of the EU ETS to international flights, that is, those going to or from aerodromes

[51] Joined Cases C-566/11, C-567/11, C-580/11, C-591/11, C-620/11, and C-640/11, Case C-566/11 *Iberdrola SA and Others* ECLI:EU:C:2013:660.

[52] Ibid, para 59.

[53] Conclusions on 2030 Climate and Energy Policy Framework (n 23) 2–3. See also Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments (15 July 2015) COM(2015) 337 final.

[54] Art 3b and Annex I.

outside the Union, has met with massive international criticism based on the fact that operators are required to surrender allowances calculated in the light of the whole of the international flight. This, many countries contend, involves illegal extraterritorial application of EU requirements beyond the borders of the Member States.[55]

The legality of Directive 2009/29/EC, which included aviation activities in the EU ETS, was addressed by the Court of Justice in a preliminary ruling on issues raised by a US airline lobby group in the High Court of Justice of England and Wales.[56] The Court did not find any breach of international treaty law or customary international law. However, the judgment did not include a substantive assessment of the Directive's compatibility with the Chicago Convention on International Civil Aviation[57] or the Kyoto Protocol since, in the first case, the Court found that the EU as such was not bound by the Convention and, in the second case, the Protocol was not 'unconditional and sufficiently precise' as to allow persons subject to EU law to rely on it in order to contest the legality of the Directive.[58] As to the Directive's application *ratione loci* and its consistency with customary international law, the Court found that the sovereignty of third countries was not infringed since the Directive is only applied with respect to aircraft that are physically in the territory of one of the Member States and 'thus subject on that basis to the unlimited jurisdiction of the European Union'.[59]

The strong international criticism nonetheless led the EU to suspend enforcement of the EU ETS in early 2013 to allow time for the International Civil Aviation Organisation (ICAO) Assembly to reach a global agreement to tackle aviation emissions.[60] The 38th ICAO Assembly decided in the autumn of 2013 to develop by 2016 a proposal for a global scheme of market-based measures capable of being implemented by 2020. In response the EU decided that until December 2016 flights between an aerodrome in the EEA—that is, the EU, Iceland, Lichtenstein, and Norway—and an aerodrome in a country or territory outside the EEA will be excluded from the scope of the EU ETS.[61] (Art 28a.)

Allocation of allowances in the aviation sector is governed by specific rules. The total quantity of allowances to be allocated to aircraft operators is defined as a

[55] See, eg, the Joint Declaration by twenty-one States, among them Brazil, China, India and the US, adopted in New Delhi on 30 September 2011. ICAO Working Paper, Inclusion of international civil aviation in the European Union Emissions Trading Scheme (EUETS) and its impact (17 October 2011) C-WP/13790, Appendix.

[56] Case C-366/10 *Air Transport Association of America and Others* ECLI:EU:C:2011:864.

[57] (Chicago, 7 December 1944) 15 UNTS 295.

[58] Case C-366/10 *Air Transport Association* (n 56), paras 71 and 78.

[59] Ibid, para 125.

[60] EU Commission—Stopping the clock of ETS and aviation emissions following last week's International Civil Aviation Organisation (ICAO) Council, European Commission—MEMO/12/854 (12 November 2012).

[61] The same applies with respect to flights between an aerodrome in a so-called outermost region of the EU and an aerodrome in another part of the EEA. Regulation (EU) No 421/2014 of the European Parliament and of the Council amending Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community, in view of the implementation by 2020 of an international agreement applying a single global market-based measure to international aviation emissions [2014] OJ L 129/1.

percentage of historical aviation emissions.[62] The total quantity in 2012 was 97 per cent of these historical emissions. For the rest of the third trading period, that is, 2013–20, the total quantity of allowances shall be 95 per cent of the historical aviation emissions multiplied by the number of years in the period. Of these allowances 15 per cent are to be allocated by auctioning while the rest, except for a 3 per cent reserve for later distribution to fast-growing aircraft operators and new entrants, are allocated for free on the basis of benchmark values (Art 3a–d). Aircraft operators may use allowances initially allocated to the aviation sector as well as those allocated to other sectors, whereas operators of installations may only use non-aviation allowances. (Art 12.)

11.2.3 Issuance, surrender, and transfer of allowances

By 28 February of each year, the competent authorities shall issue the quantity of allowances that are to be allocated for that year (Arts 3e and 11). Allowances issued from 1 January 2013 onwards are valid for emissions during periods of eight years beginning on that date.

By 30 April each year each operator is to surrender a number of allowances equal to the total verified emissions from that installation during the preceding calendar year. The allowances are then cancelled by the Member State concerned. (Art 12.)

Since allocation occurs in February while surrendering of allowances takes place in April, operators may borrow allowances from the current year to cover emissions in the previous one.

Any operator who fails to surrender sufficient allowances shall be held liable for the payment of €100 for each tonne of carbon dioxide equivalent emitted for which the operator has not surrendered allowances. Payment of this excess emissions penalty does not release the operator from the obligation to surrender the missing allowances. Member States must also publish the names of operators who fail to surrender sufficient allowances. (Art 16.)

There is hence a strong incentive for operators to surrender the appropriate number of allowances by 30 April each year, if necessary by buying them. The Court of Justice has had reason to make clear that the mere holding of a sufficient number of allowances on 30 April is not enough to escape paying the excess emissions penalty. The allowances must be surrendered in order to have them cancelled in the Community registry, thereby ensuring that an accurate accounting record is kept of the allowances.[63] However, if an operator has surrendered a number of allowances corresponding to its reported and verified emissions the fine may not be imposed on that operator even if additional controls or verifications by the national

[62] Regarding these historical emissions and how they have been calculated see 2011/149/EU: Commission Decision on historical aviation emissions pursuant to Article 3c(4) of Directive 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community [2011] OJ L 61/42, and Decision of the EEA Joint Committee No 87/2011 amending Annex XX (Environment) [2011] OJ L 262/59.

[63] Case C-203/12 *Billerud* ECLI:EU:C:2013:664, para 30.

authorities reveal that the emissions were understated, so that the number of allowances surrendered is insufficient.[64]

There are detailed provisions in the Directive on the use of international credits generated by so-called project-based mechanisms, primarily joint implementation (JI) and the clean development mechanism (CDM), for fulfilling obligations within the EU scheme. With the exception of nuclear energy projects and afforestation or reforestation activities, operators may use almost all categories of credits from the Kyoto Protocol's CDM and JI mechanism towards fulfilling part of their EU ETS obligations. (Art 11a.)

The Member States are to ensure that allowances can be transferred between persons within the EU, as well as between persons within the EU and those in third countries with which an agreement on mutual recognition of allowances have been concluded (Art 12). This requires that the countries with which an agreement is concluded operate emissions trading systems similar to the EU ETS. Since allowances are transferable, anyone in the EU can take part in the allowance trading. In practice, financial institutions are major participants in the trade.

The Commission monitors the functioning of the European carbon market and annually submits a report thereon to the European Parliament and the Council (Art 10).

11.3 Sources of Greenhouse Gases Outside the EU ETS

11.3.1 Emissions of carbon dioxide from cars

Cars and other vehicles, except airplanes, are not covered by the EU ETS but contribute significantly to the EU's emissions of carbon dioxide. The Commission first adopted a Community Strategy to reduce carbon dioxide emissions from cars in 1995 which envisioned, inter alia, voluntary commitments from the car industry.[65] In 1998 the European Automobile Manufacturers Association adopted a commitment to reduce average emissions from new cars sold to 140g CO_2/km by 2008. In 1999 the Japanese and Korean Automobile Manufacturers Associations made a similar commitment. However, in 2007 the Commission concluded that while progress had been made towards that target, the Community objective of average emissions from the new car fleet of 120g CO_2/km would not be met by 2012 in the absence of additional measures. As a reaction to this, Regulation (EC) No 443/2009 on emission performance standards for new passenger cars was eventually adopted amid heavy lobbying.[66] The Regulation, based on the predecessor to Article 192 TFEU, adopts an integrated approach which means that the Regulation itself sets

[64] Case C-148/14 *Nordzucker* ECLI:EU:C:2015:287, para 45.

[65] On the early developments in this field see Krämer *EU Environmental Law* (n 1) 290–1.

[66] Regulation (EC) No 443/2009 of the European Parliament and of the Council setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO2 emissions from light-duty vehicles [2009] OJ L 140/1.

the average carbon dioxide emissions for new passenger cars at 130g CO_2/km by 2015 whereas additional measures corresponding to a reduction of 10g CO_2/km are also to be adopted, including promotion of an increased use of sustainable biofuels. From 2020 onwards the overall target will be 95g CO_2/km as average emissions for the new car fleet. (Art 1.)

The 2015 and 2020 targets represent reductions of 18 per cent and 40 per cent respectively, compared with the 2007 fleet average of 158.7g/km.

Specific emissions targets to be met by each manufacturer of passenger cars are set according to the formulae in Annex I. New passenger cars with specific emissions of carbon dioxide of less than 50g CO_2/km can earn the manufacturer specific 'super credits' which may compensate for higher emissions by other cars (Art 5). Since it is the fleet average that is regulated, manufacturers are able to make vehicles with emissions above the limit value provided these are balanced by vehicles below it. Manufacturers may also form a pool in order to meet their targets. (Art 8.)

Any manufacturer whose average specific emissions exceed its specific emissions target will have to pay an excess emissions premium (Art 9). Similar rules apply to vans.[67]

11.3.2 Fluorinated greenhouse gases

Since 2006 the EU has a separate regulation dealing with certain fluorinated greenhouse gases outside of the EU ETS.[68] In 2014 the original regulation was replaced by Regulation 517/2014 on fluorinated greenhouse gases in order to clarify and in certain respects extend the measures established in 2006.[69] Fluorinated gases (F-gases) are used in a range of industrial applications, often as substitutes for ozone-depleting substances such as chlorofluorocarbons (CFCs) and halons. But the F-gases are powerful greenhouse gases, with a global warming potential up to 23,000 times greater than carbon dioxide, and are covered by the Kyoto Protocol.

The objective of the Regulation is to protect the environment by reducing emissions of fluorinated greenhouse gases. To that end it establishes rules on containment, use, recovery, and destruction of such gases, and on related ancillary measures. It imposes conditions on the placing on the market of specific products and equipment that contain, or whose functioning relies upon, fluorinated greenhouse gases. It also imposes conditions on specific uses of such gases and lays down quantitative limits for the placing on the market of hydrofluorocarbons.

[67] Regulation (EU) No 510/2011 of the European Parliament and of the Council setting emission performance standards for new light commercial vehicles as part of the Union's integrated approach to reduce CO2 emissions from light-duty vehicles [2011] OJ L 145/1.

[68] Regulation (EC) No 842/2006 of the European Parliament and of the Council on certain fluorinated greenhouse gases [2006] OJ L 161/1.

[69] Regulation (EU) No 517/2014 of the European Parliament and of the Council on fluorinated greenhouse gases and repealing Regulation (EC) No 842/2006 [2014] OJ L 150/195.

11.4 Energy from Renewable Sources

The main instrument for achieving the target of at least 20 per cent energy from renewable resources by 2020 is Directive 2009/28/EC.[70] This Directive, which repeals certain previous EU law acts with similar purposes, establishes a common framework for the promotion of energy from renewable sources.[71] Apart from setting mandatory national targets for the overall share of energy from renewable sources and for the share of such energy in transport, which was discussed in a previous section, it lays down rules relating, inter alia, to statistical transfers between Member States, to joint projects between Member States and with third countries, and to guarantees of origin. It also establishes sustainability criteria for biofuels and bioliquids. (Art 1.)

The Directive thus comprises a number of rather diverse measures and mechanisms for the promotion of energy from renewable sources. Some of these are discussed here.

For the purpose of the Directive, 'energy from renewable sources' refers to energy from wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas, and biogases (Art 2).

The share of energy from renewable sources in its gross final consumption of energy which each Member State shall ensure by 2020 is set out in Annex I (part A). This Annex I (part B) also contains an indicative trajectory for the years 2011–18 which Member States should equal or exceed through the introduction of appropriate measures, such as support schemes.[72] Each Member State is also required to adopt a national renewable energy action plan setting out its national targets for the share of energy from renewable sources consumed in transport, electricity, heating, and cooling in 2020 and adequate measures to be taken to achieve those national overall targets. An amendment in 2015 introduced a cap on the extent to which biofuels and bioliquids produced from cereal and other starch-rich crops, sugars and oil crops, and crops grown as main crops primarily for energy purposes on agricultural land can be relied on to meet these targets.[73] (Arts 3–4.)

[70] Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC [2009] OJ L 140/16.

[71] The Directive has repealed Directive 2001/77/EC of the European Parliament and of the Council on the promotion of electricity produced from renewable energy sources in the internal electricity market [2001] OJ L 283/33 and Directive 2003/30/EC of the European Parliament and of the Council on the promotion of the use of biofuels or other renewable fuels for transport [2003] OJ L 123/42.

[72] As to what constitutes a 'support scheme' for this purpose see Case C-195/12 *Industrie du bois de Vielsalm & Cie (IBV)* ECLI:EU:C:2013:598, and Case C-573/12 *Ålands Vindkraft* ECLI:EU:C:2014:2037. In the latter case the Court of Justice also made clear that a scheme which provides for the award of electricity certificates solely in respect of green electricity produced in the national territory of the Member State operating the scheme is not contrary to the Directive. Ibid, para 54.

[73] Art 3 as amended by Directive (EU) 2015/1513 of the European Parliament and of the Council amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources [2015] OJ L 239/1.

Calculation of the share of energy from renewable sources is complex, not least since it may require consideration of the effects of statistical transfers of specified amounts of energy from renewable sources between Member States as well as of joint projects regarding the production of electricity from such sources between Member States or between Member States and third countries (Arts 5–11).

The Directive recognises that a lack of transparency and coordination between different authorisation bodies hinders the deployment of energy from renewable sources. To address this problem Member States are required, inter alia, to ensure that any national rules concerning the authorisation, certification, and licensing procedures that apply to plants and distribution networks for the production of electricity, heating, or cooling from renewable energy sources are proportionate and necessary. This may require streamlining administrative and authorisation procedures. (Art 13.)

The Court of Justice has found a total ban on the construction of new wind turbines in areas forming part of the Natura 2000 network to be compatible with the objective of streamlining and reducing administrative barriers.[74]

The Directive requires that a system of guarantees of origin of electricity, heating, and cooling produced from renewable energy sources be established so that it may be proven to final customers that a given share or quantity of energy was produced from such sources. To that end, Member States shall ensure that, provided that certain conditions are met, a guarantee of origin is issued in response to a request from a producer of electricity from renewable energy sources. They may also arrange for such guarantees to be issued to producers of heating and cooling from renewable energy sources. A guarantee of origin shall specify, inter alia, the energy source; the identity, location, type and capacity of the installation where the energy was produced; and a unique identification number. (Art 15.)

Member States must also ensure that transmission system operators and distribution system operators guarantee the transmission and distribution of electricity produced from renewable energy sources. Such energy shall be given either priority access or guaranteed access to the grid system (Art 16).

The sustainability criteria for biofuels and bioliquids (Art 17) are probably the part of the Directive that has attracted most attention and debate.[75] The criteria aim to ensure that biofuels and bioliquids (in the following, 'biofuels') qualify for the incentives promoted by the Directive only when it can be guaranteed that they do not originate in biodiverse areas or when it can be demonstrated that the production of the raw material does not interfere with the protection of rare, threatened, or endangered ecosystems or species.[76] A certain effect in terms of emissions savings must also be achieved.

[74] Case C-2/10 *Azienda Agro-Zootecnica Franchini* ECLI:EU:C:2011:502, para 63.

[75] See eg J Lin 'Governing Biofuels: A Principal-Agent Analysis of the European Union Biofuels Certification Regime and the Clean Development Mechanism' (2012) 24 *Journal of Environmental Law* 43–74; A Swinbank and C Daugbjerg 'Improving EU Biofuels Policy: Greenhouse Gas Emissions, Policy Efficiency, and WTO Compatibility' (2013) 47 *Journal of World Trade* 813–34.

[76] Preambular para 69.

For biofuels to count towards the fulfilment of national targets and renewable energy obligations set out in the Directive, and to be eligible for financial support for the consumption of biofuels, their use must, after an amendment in 2015, result in a greenhouse gas emission saving of at least 35 per cent until 31 December 2017 and at least 50 per cent from 1 January 2018.[77] For biofuels produced in installations starting operation after 5 October 2015, the saving must be at least 60 per cent.

The biofuels must not be made from raw material obtained from land with high biodiversity value. That entails that the land must not in or after January 2008 have been defined as forest and other wooded land of native species, where there is no clearly visible indication of human activity and the ecological processes are not significantly disturbed; have been designated for nature protection purposes or for the protection of rare, threatened, or endangered ecosystems or species recognised by international agreements; or had status as highly biodiverse grassland. However, this does not apply if evidence is provided that the production of the raw material did not interfere with those nature-protection purposes. Similar rules apply to raw material obtained from land with high carbon stock such as wetlands and continuously forested areas.

Every two years the Commission shall report to the EP and the Council on national measures taken to respect the sustainability criteria set out in the Directive as well as for soil, water, and air protection. It shall also report on the impact on social sustainability in the EU and in third countries of increased demand for biofuel and on the impact of EU biofuel policy on the availability of foodstuffs at affordable prices. (Art 17.)

There are also provisions on verification of compliance with the sustainability criteria. The Member States shall require economic operators to show that the sustainability criteria have been fulfilled by means of a mass balance system. The EU shall also endeavour to conclude bilateral or multilateral agreements with third countries containing provisions on sustainability criteria that correspond to those of the Directive. Where such agreements have been concluded, the Commission may decide that those agreements demonstrate that biofuels produced from raw materials cultivated in those countries comply with the criteria. The Commission may also decide that voluntary national or international schemes setting standards for the production of biomass demonstrate that consignments of biofuel comply with the sustainability criteria.[78] (Art 18.)

The Commission shall monitor the origin of biofuels consumed in the EU and the impact of their production on land use in the EU and the main third countries of supply and report on these issues (Art 23).

Directive 2009/28/EC is based on two articles in the TFEU. The main legal base is the predecessor of Article 192, but the articles (Arts 17–19) dealing with

[77] Regarding the calculation of the greenhouse gas emission saving see Art 19 and Annex V.

[78] See, eg, Commission Implementing Decision 2011/437/EU on the recognition of the 'Biomass Biofuels Sustainability voluntary scheme' for demonstrating compliance with the sustainability criteria under Directives 2009/28/EC and 2009/30/EC of the European Parliament and of the Council [2011] OJ L 190/77.

sustainability criteria for biofuels instead have the previous article corresponding to what is now Article 114 TFEU as their legal base. This indicates that the Directive aims to harmonise the way in which Member States regulate trade in such fuels for sustainability purposes.

As noted previously, the European Council in 2014 agreed on an EU target of at least 27 per cent share of renewable energy consumed in the EU in 2030 that will be binding at EU level.[79]

11.5 Carbon Capture and Storage

According to its title, Directive 2009/31/EC deals with the geological storage of carbon dioxide.[80] However, geological storage of carbon dioxide forms part of the broader concept of carbon capture and storage (CCS). Briefly put, CCS is a collective name for a number of, partly alternative, techniques and methods which, when combined, allow carbon dioxide to be sequestered and thus prevented from reaching the atmosphere. Technically, it comprises three main stages: capturing the carbon dioxide (pre- or post-combustion), transporting it to a suitable storage site, and final storage/disposal. The Commission held in 2008 that a 50 per cent reduction of the EU's emissions of carbon dioxide or those of the world as a whole by 2050 will not be possible without the use of CCS.[81] CCS has also prompted considerable legislative activity at the international law level, primarily intended to incentivise CCS activities and enable them to be carried out in a safe manner consistent with international environmental regimes.[82]

The 'CCS Directive', which is based on the predecessor of Article 192 TFEU, establishes a legal framework for the environmentally safe geological storage of carbon dioxide to contribute to the fight against climate change. But it also, primarily by amending relevant provisions of other EU legal acts, deals with the other elements of CCS, that is, capture and transport of carbon dioxide intended for geological storage.[83] In order to incentivise CCS, such activities have also been included in the EU ETS by amendments to Directive 2003/87/EC.

[79] European Council, Conclusions on 2030 Climate and Energy Policy Framework (n 23) 5.

[80] Directive 2009/31/EC of the European Parliament and of the Council on the geological storage of carbon dioxide … [2009] OJ L 140/114.

[81] See Proposal for a Directive of the European Parliament and of the Council on the Geological Storage of Carbon Dioxide (23 January 2008) COM(2008) 18 final, 2. In 2013 the Commission had somewhat softened its analysis, holding that 'globally CCS is likely to be a necessity in order to keep the average global temperature rise below 2 degrees' and that CCS is 'vital for meeting the Union's greenhouse gas reduction targets'. Communication from the Commission on the Future of Carbon Capture and Storage in Europe (27 March 2013) COM(2013) 180 final, 2.

[82] See further D Langlet 'Safe Return to the Underground? The Role of International Law in Subsurface Storage of Carbon Dioxide' (2009) 18 *Review of European Community and International Environmental Law* 286–303.

[83] Amendments were made, eg, to Directive 2008/1/EC concerning integrated pollution prevention and control (subsequently superseded by Directive 2010/75/EU on industrial emissions) and

The CCS Directive applies to geological storage of carbon dioxide in the territory of the Member States, in their exclusive economic zones, and on their continental shelves and prohibits storage outside these areas. However, storage activities with a total intended storage below 100 kilotonnes, undertaken for research, development, or testing of new products and processes, are exempted from the Directive. The storage of carbon dioxide in the water column, that is, in the sea itself, is prohibited. (Art 2.)

It is for each Member State to decide whether it will allow geological storage of carbon dioxide within its territory and if so to determine the areas from which storage sites may be selected pursuant to the requirements of the Directive. Any Member State which intends to allow geological storage shall undertake an assessment of the storage capacity available in parts or in the whole of its territory. The suitability of any specific geological formation for use as a storage site is to be determined pursuant to criteria set out in Annex I.

The identification of suitable storage sites by means of activities intruding into the subsurface such as drilling must only be allowed with an exploration permit. The actual storage of carbon dioxide in such a storage site also requires a permit from a competent national authority. Procedures for the granting of storage permits must be open to all entities possessing the necessary capacities and the permits are to be granted on the basis of objective and transparent criteria. A particular geological formation may only be selected as a storage site, and thus a permit granted, if under the proposed conditions of use there is no significant risk of leakage, and if no significant environmental or health risks exist.[84] (Art 4.)

Member States must make available to the Commission permit applications, draft storage permits, and any other material taken into consideration for the adoption of the draft decision. Within four months after receipt of a draft storage permit, the Commission may issue a non-binding opinion on it. If the national authority departs from the Commission's opinion it must state its reasons. (Art 10.)

Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment (subsequently superseded by Directive 2011/92/EU with the same name) to make these legal acts apply to and enable the deployment of environmentally safe CCS activities.

[84] A 'significant risk' is defined, in Art 3(18), as 'a combination of a probability of occurrence of damage and a magnitude of damage that cannot be disregarded without calling into question the purpose of [the] Directive for the storage site concerned'. Whereas the purpose of the Directive is not set out explicitly, it 'establishes a legal framework for the environmentally safe geological storage of carbon dioxide (CO_2) to contribute to the fight against climate change' (Art 1 (1)). The purpose of 'environmentally safe geological storage of CO_2' is defined as 'permanent containment of CO_2 in such a way as to prevent and, where this is not possible, eliminate as far as possible negative effects and any risk to the environment and human health' (Art 1 (2)). Hence, the purpose of the Directive must be assumed to be at least that. Accordingly, a 'significant risk' should be at least a combination of a probability of occurrence of damage and a magnitude of damage that cannot be disregarded without calling into question the ability of permanent containment of CO_2 (at a specific site) to prevent and, where this is not possible, eliminate as far as possible negative effects and any risk to the environment and human health. Reasonably, it is a tall order to establish, for example, when a risk calls into question the ability to eliminate as far as possible negative effects and any risk which may not be prevented. Not least since the definition appears to be based on circular reasoning.

A storage permit may be issued only if the competent authority is satisfied that all requirements of relevant EU legislation are met and that the operator is financially sound and technically competent and reliable to operate and control the site. A financial security or an equivalent shall also be presented by the potential operator in order to ensure that all obligations arising under the permit can be met. (Arts 8 and 19.)

The Directive contains rules on monitoring, based on an approved monitoring plan, for the detection of migration or leakage of carbon dioxide or any significant adverse effects for the surrounding environment, as well as on measures taken to correct significant irregularities or to close leakages, in accordance with an approved plan (Arts 13 and 16).

When injection of carbon dioxide has ceased and the storage site has been closed, which normally requires that all relevant conditions stated in the permit have been met, the responsibility for monitoring, reporting, and taking corrective measures, and for all obligations relating to the surrender of emission allowances in case of leakages and taking preventive and remedial actions pursuant to the directive on environmental liability (Directive 2004/35/EC), may be transferred from the operator to the Member State. Transfer requires that all available evidence indicates that the stored carbon dioxide will be completely and permanently contained and normally also that a minimum period of at least twenty years has elapsed. Before any transfer may occur, the operator must also make a financial contribution available to the competent authority to cover at least the anticipated cost of monitoring for a period of thirty years. (Arts 17, 18, and 20.)

As mentioned previously, CCS activities have been made subject to the EU ETS. This means that capture of greenhouse gases and transport of such gases by pipeline for geological storage, as well as the storage of greenhouse gases in storage sites permitted under the CCS Directive, require a permit and that the operators must surrender allowances to cover any leakage of carbon dioxide. It also means that no allowances must be surrendered in respect of emissions verified as captured and transported for permanent storage in accordance with the CCS Directive. A large number of allowances in the new entrants' reserve have also been made available to help stimulate the construction and operation of commercial demonstration projects for environmentally safe CCS. (Directive 2003/87/EC, Arts 2 and 12.)

Other measures have also been taken to financially stimulate development of large-scale CCS projects. However, CCS has not yet taken off in Europe, partly due to the surplus of allowances in the EU ETS and the attendant low cost imposed on emissions. Cost estimates of CCS vary depending on fuel, technology, and so on, but most calculations fall in the range of €30 to €100 per tonne of CO_2 stored.[85] That no storage by commercial actors will come about as long as the cost for emitting a tonne of carbon dioxide is €5–10 is rather obvious, and the CCS policy of the EU must be described as being in a state of crisis.

[85] The Future of Carbon Capture and Storage in Europe (n 81) 14.

11.6 Energy Efficiency

The Commission has declared energy efficiency to be 'the most cost effective way to reduce emissions, improve energy security and competitiveness, make energy consumption more affordable for consumers as well as create employment, including in export industries'.[86] Despite this, progress towards increased efficiency has been slow and efficiency gains tend to be negated by increased demand for energy-consuming products.

With the adoption in 2006 of Directive 2006/32/EC on energy end-use efficiency and energy services, an overall national indicative energy savings target of 9 per cent until 2016, to be reached by way of energy services and other energy efficiency improvement measures, was set out.[87] Member States were also required to draw up Energy Efficiency Action Plans (EEAP) and submit them to the Commission (Art 4). The Commission subsequently described the quality of the EEAPs developed by the Member States as 'disappointing, leaving vast potential untapped'.[88] In 2007 the 9 per cent target was supplemented by the target of saving 20 per cent of the EU's energy consumption, compared to projections, by 2020.[89]

In 2011 the Commission adopted the 'Energy Efficiency Plan 2011', in which it estimated that the EU was on course to achieve only half of the 20 per cent objective and spelled out a series of energy efficiency policies and measures.[90] It also spurred the development of a new directive bringing together different measures aimed at increasing energy efficiency in several sectors.

The new Directive 2012/27/EU on energy efficiency is a response to the 'unprecedented challenges resulting from increased dependence on energy imports and scarce energy resources, and the need to limit climate change and to overcome the economic crisis'.[91] It establishes a common framework of measures for the promotion of energy efficiency within the Union in order to ensure the achievement of the Union's 2020 20 per cent headline target on energy efficiency and to pave the way for further energy efficiency improvements beyond that date. It aims to remove barriers in the energy market and overcome market failures that impede efficiency in the supply and use of energy, and provides for the establishment of indicative national energy efficiency targets for 2020. (Art 1.)

[86] Communication from the Commission—Energy 2020—A strategy for competitive, sustainable and secure energy (10 November 2010) COM(2010) 639 final, 6.

[87] Directive 2006/32/EC of the European Parliament and of the Council on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC [2006] OJ L 114/64.

[88] Energy 2020—A strategy (n 86) 3.

[89] 224/1/07 REV 1: Presidency Conclusions of the European Council of 8/9 March 2007. This objective translates into a saving of 368 million tons of oil equivalent (Mtoe) of primary energy by 2020 compared to projected consumption in that year of 1842 Mtoe.

[90] Communication from the Commission—Energy Efficiency Plan 2011 (8 March 2011) COM(2011) 109 final, 2.

[91] Directive 2012/27/EU of the European Parliament and of the Council on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC [2012] OJ L 315/1, preambular para 1.

The Directive is based on Article 194 TFEU, that is, the legal basis for energy policy, but explicitly holds that it contains minimum requirements and shall not prevent any Member State from maintaining or introducing more stringent measures (Art 1). It repealed, as of June 2014, a directive on the promotion of cogeneration,[92] as well as the 2006 Directive on energy end-use efficiency and energy services. However, the provisions on national indicative energy savings targets and EEAPs in the latter Directive (Art 4) remain in force until 1 January 2017 (Art 27).

Each Member State is to set an indicative national energy efficiency target. Those targets shall take into account that the Union's 2020 energy consumption has to be no more than 1483 Mtoe of primary energy as well as remaining cost-effective energy-saving potential. (Art 3.)

Member States are expected to use public purchasing as a means to increase energy efficiency. Central governments may only purchase products, services, and buildings with high energy efficiency performance. However, the obligation applies only insofar as it is consistent with cost-effectiveness, economical feasibility, technical suitability, and sufficient competition. The obligation also applies only to contracts of a value equal to or above the thresholds laid down in the Public Procurement Directive (now Directive 2014/24/EU, Art 4).[93] Other public bodies, including at regional and local levels, shall be encouraged to follow the exemplary role of their central governments in this respect. (Art 6.)

The Directive furthermore provides for so-called 'energy efficiency obligation schemes' which shall ensure that energy distributors and/or retail energy sales companies, designated on the basis of objective and non-discriminatory criteria, achieve a cumulative end-use energy savings target by 31 December 2020. That target shall be at least equivalent to achieving new savings each year from 1 January 2014 to 31 December 2020 of 1.5 per cent of the annual energy sales to final customers of all energy distributors or all retail energy sales companies by volume, averaged over the most recent three-year period prior to 1 January 2013. The sales of energy used in transport may be excluded from this calculation. As an alternative to energy efficiency obligation schemes, Member States may opt to take other policy measures such as energy or carbon dioxide taxes, regulations or voluntary agreements, and energy labelling schemes, to achieve energy savings among final customers, if the annual amount of new energy savings achieved through this approach is equivalent to the amount required by the energy labelling-scheme option. The calculation of energy savings and the criteria that apply to the different options are complex. (Art 8.)

In so far as it is technically possible, financially reasonable, and proportionate in relation to the potential energy savings, final customers of electricity, natural gas, district heating, district cooling, and domestic hot water shall be provided with

[92] Directive 2004/8/EC of the European Parliament and of the Council on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC [2004] OJ L 52/50.

[93] Directive 2014/24/EU of the European Parliament and of the Council on public procurement and repealing Directive 2004/18/EC [2014] OJ L 94/65.

competitively priced individual meters that accurately reflect their actual energy consumption and provide information on actual time of use. With some exceptions, such a meter shall always be provided when an existing meter is replaced, or a new connection is made in a new building, or a building undergoes major renovations. (Arts 9–10.)

Member States are required to carry out a comprehensive assessment of the potential for the application of high-efficiency cogeneration and efficient district heating and cooling. When the assessment, including a cost–benefit analysis, identifies a potential for the application of high-efficiency cogeneration and/or efficient district heating and cooling whose benefits exceed the costs, the Member States shall take adequate measures for such district heating and cooling infrastructure to be developed. (Art 14.)

As to so-called smart grids, Member States shall ensure that national energy regulatory authorities provide incentives for grid operators to make available system services to network users permitting them to implement energy efficiency improvement measures in the context of the continuing deployment of such grids. Member States also had to ensure, by 30 June 2015, that an assessment was undertaken of the energy efficiency potentials of their gas and electricity infrastructure, in particular regarding transmission, distribution, load management and interoperability, and access possibilities for micro energy generators. Concrete measures and investments must also be identified for the introduction of cost-effective energy efficiency improvements in the network infrastructure. (Art 15.)

The Directive also contains provisions on availability of qualification, accreditation and certification schemes, information and training, and promotion of energy services.

11.7 Energy Efficiency in the Built Environment

The built environment is important to EU energy efficiency policy, since nearly 40 per cent of final energy consumption is in houses, offices, shops, and other buildings.[94] This is reflected in the fact that a specific directive 'on the energy performance of buildings' was adopted in 2002.[95] This was replaced in 2010 by Directive 2010/31/EU with the same title.[96] However, important requirements pertaining to buildings can also be found in the general energy efficiency directive of 2012, as will be seen presently.

Directive 2010/31/EU establishes a framework for calculating the integrated energy performance of buildings and building units and provides for the application of minimum requirements to the energy performance of, inter alia, new

[94] Energy Efficiency Plan 2011 (n 90) 6.

[95] Directive 2002/91/EC of the European Parliament and of the Council on the energy performance of buildings [2003] OJ L 1/65.

[96] Directive 2010/31/EU of the European Parliament and of the Council on the energy performance of buildings [2010] OJ L 153/13.

buildings and new building units, as well as existing buildings, building units, and building elements that are subject to major renovation. Like the general Directive on energy efficiency, this Directive is based on Article 194 but makes clear that it contains minimum requirements and shall not prevent Member States from maintaining or introducing more stringent measures. (Art 1.)

A general framework for calculating the energy performance of buildings is set out in Annex I (Art 3). Each Member State is to set minimum energy performance requirements for buildings or building units with a view to achieving cost-optimal levels. What constitutes cost-optimal levels is to be calculated in accordance with a comparative methodology framework established in accordance with Article 5 and set out in a Delegated Regulation.[97]

When setting minimum energy performance requirements, Member States may differentiate between new and existing buildings and between different categories of buildings. The requirements must be reviewed at least every five years and shall, if necessary, be updated in order to reflect technical progress in the building sector. A Member State may decide not to set or apply the requirements to certain categories of buildings, including buildings officially protected because of their special architectural or historical merit, buildings used for religious activities, residential buildings which are used for less than four months of the year, and stand-alone buildings with a total useful floor area of less than 50 m^2. (Art 4.)

Subject to those exceptions, all new buildings are to meet the minimum energy performance requirements. So are buildings or building units that undergo major renovation in so far as it is technically, functionally, and economically feasible. (Arts 6–7.)

Since in most countries only a small part of the building stock is added as new buildings each year and since existing buildings may only undergo major renovation every twenty to thirty years, rules that apply to new or substantially renovated buildings will only very slowly change the overall energy performance of the building stock. Under the general energy efficiency Directive (2012/27/EU), Member States are therefore required to establish a long-term strategy for mobilising investment in the renovation of the national stock of residential and commercial buildings. This strategy shall encompass, inter alia, an overview of the national building stock, identification of cost-effective approaches to renovations, policies and measures to stimulate cost-effective deep renovations of buildings, and an evidence-based estimate of expected energy savings and wider benefits. (Art 4.)

With respect to certain public buildings, the Directive also sets a mandatory target for annual renovations. Of the total floor area of heated and/or cooled buildings owned and occupied by the central government, 3 per cent is to be renovated each year to meet at least the minimum energy performance requirements that the Member State has set in application of Article 4 of Directive 2010/31/EU.

[97] Commission Delegated Regulation (EU) No 244/2012 supplementing Directive 2010/31/EU of the European Parliament and of the Council on the energy performance of buildings by establishing a comparative methodology framework for calculating cost-optimal levels of minimum energy performance requirements for buildings and building elements [2012] OJ L 81/18.

The 3 per cent rate is calculated on the total floor area of buildings with a total useful floor area over 500 m^2 owned and occupied by the central government that, on 1 January of each year, do not meet the national minimum energy performance requirements. In 2015 the threshold was lowered to 250 m^2. (Art 5.)

Even though individual Member States may extend the 3 per cent renovation obligation to be calculated based on floor area owned and occupied by administrative departments at a level below central government, it is still a very small part of all buildings that are affected, particularly when applying the obligation only to central government buildings.

A Member State may, subject to notification to the Commission, opt for an alternative approach whereby it takes other cost-effective measures, including deep renovations and measures for behavioural change of occupants, to achieve the same amount of energy savings that would have been achieved by applying the 3 per cent renovation target (Art 5).

Particular attention is given in the Directive to building standards and codes. These instruments shall be used to increase the share of all kinds of energy from renewable sources in the building sector. By 31 December 2014 building regulations and codes had, where appropriate, to require the use of minimum levels of energy from renewable sources in new buildings and in existing buildings that are subject to major renovation. New public buildings, and existing public buildings that are subject to major renovation, shall fulfil an exemplary role. (Art 13.)

Returning to Directive 2010/31/EU, it contains extensive regulation of so-called 'nearly zero-energy buildings' (Art 9); however, the Directive does not provide a clear definition of such a building, merely that it is a building that has 'a very high energy performance', as determined in accordance with the general framework in Annex I. But it is made clear that the nearly zero or very low amount of energy required should be covered to a very significant extent by energy from renewable sources, including energy from renewable sources produced on site or nearby. All new buildings are required to be nearly zero-energy buildings by 31 December 2020 and new buildings occupied and owned by public authorities should meet this requirement from 1 January 2019. Member States are to draw up national plans, to be assessed by the Commission, for increasing the number of nearly zero-energy buildings. They must also develop policies and take measures such as the setting of targets in order to stimulate the transformation of buildings that are refurbished into nearly zero-energy buildings.

Each Member State must furthermore establish a system of certification of the energy performance of buildings. An energy performance certificate shall state the energy performance of the building or building unit concerned and reference values that make it possible for owners or tenants to compare and assess the energy performance. With some exceptions, certificates are to be issued for all buildings or building units which are constructed, sold, or rented out to a new tenant. Buildings where a total useful floor area over 250 m^2 is occupied by a public authority and frequently visited by the public must have a certificate irrespective of being sold or rented to a new tenant. Energy performance certification is to be carried out in an independent manner by qualified and/or accredited experts and be subject to an

independent control system. When buildings or building units are constructed, sold, or rented out, a copy of the certificate must be shown to the prospective new tenant or buyer. Energy performance data must also be provided in any commercial advertisements when a building that has an energy performance certificate is offered for sale or rent. (Arts 12, 17, and 18.)

The Directive also provides for regular mandatory inspections of heating and air-conditioning systems (Arts 14–15).

11.8 Ecodesign of Energy-using Products

Based on the fact that disparities between the laws or administrative measures adopted by the Member States in relation to the ecodesign of energy-using products can create barriers to trade and distort competition, a common framework for the setting of ecodesign requirements for such products was adopted in the form of a directive in 2005.[98] Due to substantial amendments, that Directive was recast in 2009 as Directive 2009/125/EC.[99]

This Directive, which is based on the predecessor to the current Article 114 TFEU, that is, the legal basis relating to the internal market, establishes a framework for the setting of EU ecodesign requirements for energy-related products with the aim of ensuring the free movement of such products within the internal market.

The Directive provides for the setting of requirements which the energy-related products must fulfil in order to be placed on the market and/or put into service. For the purpose of the directive, an 'energy-related product' is any good that has an impact on energy consumption during use which is placed on the market and/or put into service, as well as parts intended to be incorporated into such products. (Arts 1–2.)

The requirements apply only to products that are covered by implementing measures which in practice are product-specific Commission regulations adopted through a committee procedure.[100] In order to qualify for such an implementing measure a product shall, inter alia, represent a significant volume of sales and trade, indicatively more than 200,000 units a year within the EU; have a significant environmental impact within the Union; and present significant potential for improvement in terms of its environmental impact without entailing excessive costs (Art 15). Products covered by implementing measures may be placed on the market and/or put into service only if they comply with those measures and bear the 'CE' marking (Art 3). The Directive allows for voluntary agreements or other

[98] Directive 2005/32/EC of the European Parliament and of the Council establishing a framework for the setting of ecodesign requirements for energy-using products … [2005] OJ L 191/29.

[99] Directive 2009/125/EC of the European Parliament and of the Council establishing a framework for the setting of ecodesign requirements for energy-related products [2009] OJ L 285/10.

[100] See, eg, Commission Regulation (EU) No 932/2012 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for household tumble driers [2012] OJ L 278/1.

self-regulation measures to be applied as alternatives to implementing measures if they meet certain criteria (Art 17).

11.9 Eco Labelling

There are two pieces of EU legislation relating to energy labelling of products. Together with, inter alia, the rules on eco-design discussed in the previous section, these are part of the Union's attempts to achieve sustainable consumption, or in other words, the decoupling of environmental degradation from economic growth.[101] One of these is Directive 2010/30/EU on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products.[102] This Directive, which is a recast and expanded version of a directive from 1992,[103] is based on the presumption that if end-users are provided with accurate and comparable information on the specific energy consumption of energy-related products they will favour products which consume less energy and other essential resources, thus prompting manufacturers to provide more resource-efficient products.[104] In line with this, it establishes a framework for the harmonisation of national measures on end-user information, particularly by means of labelling and standard product information, on the consumption of energy and, where relevant, of other essential resources during use (Art 1). The legal basis used is Article 194 TFEU, that is, energy policy.

The Member States must ensure that suppliers placing on the market or putting into service products covered by a product specific Commission Delegated Regulation supply a label and a standard table of information ('fiche') that conform to the Directive and the applicable delegated regulation.[105] Dealers must display labels properly and make the fiche available in the product brochure. (Arts 5–6.)

The label shall include a classification using letters from A to G corresponding to significant energy and cost savings from the end-user perspective. The three additional classes A+, A++, and A+++ may be added if required by technological progress. (Art 10.)

The placing on the market or putting into service of products which are covered by and comply with the Directive and the applicable delegated act shall not be impeded (Art 8).

[101] See further Communication from the Commission on the Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan (25 June 2008) COM(2008) 397 final.

[102] Directive 2010/30/EU of the European Parliament and of the Council on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products [2010] OJ L 153/1.

[103] Council Directive 92/75/EEC on the indication by labelling and standard product information of the consumption of energy and other resources by household appliances [1992] OJ L 297/16.

[104] Preambular para 5.

[105] For an example of such a delegated regulation, see Commission Delegated Regulation (EU) No 665/2013 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of vacuum cleaners [2013] OJ L 192/1.

The second piece of EU legislation in this area is Regulation (EC) No 106/2008 on an EU energy-efficiency labelling programme for office equipment,[106] which is a recast of a regulation from 2001.[107] It lays down the requisite rules for the EU's participation in the international Energy Star programme, which is now based on a 2012 agreement between the US government and the EU on the coordination of energy-efficiency labelling programmes for office equipment. (Art 1.)

The Regulation deals with voluntary labelling programmes. Programme participants may use the common Energy Star logo on their individual office equipment products, as defined in Annex C to the Agreement, and on associated promotional material (Arts 2 and 4).

Based on the international agreement, the EU participates in the drawing up of technical specifications for the labelling programme. The implementation of the programme within the EU is reviewed by the European Community Energy Star Board (ECESB), consisting of national representatives and representatives of interested parties. (Art 8.)

The Regulation is based on the predecessor to the current Article 192 TFEU.

In 2015 the Commission adopted a proposal for a new regulation on energy efficiency labelling which would repeal Directive 2010/30/EU.[108] While retaining the objectives and main principles of Directive 2010/30/EU, the intention is to clarify, strengthen, and extend the scope compared to Directive 2010/30/EU by, inter alia, updating the label and allowing for rescaling, improving enforcement, and making clearer the obligations of the various parties.[109]

Further Reading

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J Delbeke and P Vis (eds) *EU Climate Policy Explained* (Routledge, 2015)

K Kulovesi, E Morgera, and M Munoz 'Environmental Integration and Multi-Faceted International Dimensions of EU Law: Unpacking the EU's 2009 Climate and Energy Package' (2011) 48 *Common Market Law Review* 829–92

D Langlet 'Transboundary Dimensions of CCS' (2014) *Carbon & Climate Law Review* 198–207

M Peeters 'Governing towards Renewable Energy in the EU: Competences, Instruments, and Procedures' (2014) 21 *Maastricht Journal of European and Comparative Law* 39–63

[106] Regulation (EC) No 106/2008 of the European Parliament and of the Council on a Community energy-efficiency labelling programme for office equipment (recast version) [2008] OJ L 39/1.

[107] Regulation (EC) No 2422/2001 of the European Parliament and of the Council on a Community energy efficiency labelling programme for office equipment [2001] OJ L 332/1.

[108] Proposal for a Regulation of the European Parliament and of the Council setting a framework for energy efficiency labelling and repealing Directive 2010/30/EU (15 July 2015) COM(2015) 341 final.

[109] Ibid, 8.

M Peeters and T Schomerus 'Modifying Our Society with Law: The Case of EU Renewable Energy Law' (2014) 4 *Climate Law* 131–9

S Pront-van Bommel and A Bregman 'European Legal Framework on Distributed Energy Systems in the Built Environment' (2013) 22 *European Energy and Environmental Law Review* 168–80

S Romppanen 'Legitimacy and EU Biofuel Governance: In Search of Greater Coherence' (2014) 4 *Climate Law* 239–66

F J Säcker, L Scholz, and T Sveen (eds) *Renewable Energy Law in Europe: Challenges and Perspectives* (Peter Lang GmbH, Internationaler Verlag der Wissenschaften, 2015)

J Scott 'Multi-level Governance of Climate Change' (2011) *Carbon & Climate Law Review* 25–33

12

Waste

Facts and figures

In 2013 each person in the EU generated, on average, 481 kg of municipal waste. Of this 43 per cent was recycled or composted.

Almost half of all waste treated in the EU-28 in 2012 was subject to landfilling or similar operations. About 36 per cent was recycled.

(Eurostat Waste statistics)

Many EU Member States will need to make an extraordinary effort in order to achieve the target of 50 per cent recycling of some municipal waste streams by 2020.

20+ year outlook: Total waste generation is still high, although implementation of waste prevention programmes could alleviate this.

(EEA: The European environment—state and outlook 2015)

12.1 Introduction

The EU has long had an extensive legal framework on management and transport of various kinds of waste. The first waste directive was adopted in 1975. Since then the rules on waste have been revised and supplemented several times and strategies for waste management have been developed.[1] The main principles governing this field of law have been the principle that preventive action should be taken, that of self-sufficiency, and that EU environmental policy shall aim at a high level of protection.

According to the 7th Environment Action Programme, 'Living well, within the limits of our planet', the priority objectives for waste policy include reducing the amount of waste generated; maximising recycling and re-use; limiting incineration to non-recyclable materials; and phasing out landfill to non-recyclable and non-recoverable waste.

[1] Communication from the Commission—Taking sustainable use of resources forward—A Thematic Strategy on the prevention and recycling of waste (21 December 2005) COM(2005) 666 final.

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Waste law has increasingly become a part of the wider policy framework for sustainable consumption and production and so-called circular economy. This has led to an increasing focus on reuse and recovery, but also on the design and composition of products so as to minimise waste generation and make the substances that do become waste easier to turn into new products. In 2014 the Commission presented a strategy called 'Towards a circular economy: A zero waste programme for Europe' in which it proposed to, inter alia, boost reuse and recycling of municipal waste to a minimum of 70 per cent by 2030, ban the landfill of most recyclable and biodegradable waste by 2025, further promote the development of markets for high-quality secondary raw materials, and set an aspirational target of reducing marine litter.[2] The proposal contained six legislative proposals. However, the new Commission headed by Jean-Claude Juncker withdrew the proposal, promising a new version in late 2015.

In late 2015 the Commission adopted 'The Circular Economy Package', consisting of an action plan called 'Closing the loop—An EU action plan for the Circular Economy'[3] and six partly revised proposals for amending waste-related directives.

In addition to promoting a sustainable and low-carbon economy, the 'circular economy', in which the generation of waste is minimised and the value of products, materials, and resources is maintained in the economy for as long as possible, is intended to boost the EU's competitiveness by protecting businesses against scarcity of resources and volatile prices, helping to create new business opportunities and innovative, more efficient ways of producing and consuming, and creating local jobs at all skill levels.[4] The action plan includes activities in several areas, including those related to design and production, consumption, and reuse and recycling. With respect to waste, the Commission concludes that the current figure of around 40 per cent of the waste produced by EU households being recycled masks wide variation between Member States and regions, with rates as high as 80 per cent in some areas and lower than 5 per cent in others.[5] In order to boost the market for secondary raw materials the Commission intends, inter alia, to launch work to develop quality standards for secondary raw materials, propose a revised EU regulation on fertilisers so as to facilitate recognition of organic and waste-based fertilisers, and develop a legislative proposal on minimum requirements for reused water, for example for irrigation and groundwater recharge.[6] The Commission also undertakes to adopt a strategy on plastics in the circular economy, addressing issues such as recyclability, biodegradability, the presence of hazardous substances of concern in certain plastics, and marine litter.[7]

An annex to the action plan sets out the timeline for when the actions are to be completed. A monitoring framework for the circular economy, designed to measure progress effectively on the basis of reliable existing data, is also to be developed.[8]

[2] Communication from the Commission—Towards a circular economy: A zero waste programme for Europe (25 September 2014) COM(2014) 398 final/2, 9–10.
[3] (2 December 2015) COM(2015) 614 final. [4] Ibid, 2. [5] Ibid, 8.
[6] Ibid, 13. [7] Ibid, 14. [8] Ibid, 21.

The proposed amendments to waste-related directives, further discussed presently in relation to the respective directives, are intended, inter alia, to increase recycling and reduce the landfill of municipal waste and extend producer responsibility schemes.[9] The proposals include common EU targets for recycling 65 per cent of municipal and 75 per cent of packaging waste by 2030 and a binding landfill target to reduce landfill to a maximum of 10 per cent of all waste by 2030.

The proposals have been criticised for partly watering down the objectives compared to the plan withdrawn in 2014.[10]

12.2 The Framework Directive on Waste

At the core of EU waste law has always been a general directive on waste ('the Framework Directive on Waste' or 'FDW') defining key concepts, establishing major principles, and allocating responsibilities. Other pieces of waste law regulate either specific waste streams, such as packaging waste, or specific forms of waste management, such as transboundary shipments or landfill.

The first FDW was Directive 75/442/EEC on waste, adopted in 1975.[11] It defined waste as any substance or object which the holder disposes of or is required to dispose of pursuant to the provisions of national law in force (Art 1). In 1991 it was subject to significant changes affecting, inter alia, the definitions of 'waste' and 'disposal'.[12] Thereafter, waste has been any substance or object 'which the holder discards or intends or is required to discard'. Initially the substance or object should also belong to one of the categories set out in Annex I to the Directive. But since one of these categories was 'any materials, substances or products which are not contained in the above categories', this requirement did not actually add to the definition of waste and was later removed from the article defining waste. In 2006 a codified version of the Directive, incorporating the amendments from 1991 as well as later ones, was adopted as Directive 2006/12/EC on waste.[13]

Only two years later this was replaced by a new FDW, Directive 2008/98/EC on waste.[14] This step was prompted primarily by a wish to clarify key concepts such as the definitions of waste, recovery and disposal; to strengthen waste prevention; to better take into account the whole life-cycle of products and materials; and to encourage recovery of waste and the use of recovered materials.[15] Two older directives were also repealed, one on hazardous waste and one on waste oils, and their main provisions integrated into the FDW.[16] Other noticeable changes compared

[9] Ibid, 9.

[10] 'Timmermans defends ambition of new Circular Economy package', Euractiv 02 December 2015 at <http://www.euractiv.com/sections/sustainable-dev/timmermans-defends-ambition-new-circular-economy-package-320049> (visited 13 December 2015).

[11] [1975] OJ L 194/39. [12] [1991] OJ L 78/32. [13] [2006] OJ L 114/9.

[14] [2008] OJ L 312/3. [15] Preambular para 8.

[16] Council Directive 75/439/EEC on the disposal of waste oils [1975] OJ L194/23; Council Directive 91/689/EEC on hazardous waste [1991] OJ L377/20.

to the previous FDW included the introduction of criteria for distinguishing by-products from waste and for aiding the determination of when waste ceases to be waste ('end-of-waste status').

Directive 2008/98/EC, which is based on an article corresponding to the current Article 192(1) TFEU, aims to protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of waste and by reducing overall impacts of resource use and improving the efficiency of such use (Art 1).

As mentioned, the definition of waste is wide and now encompasses 'any substance or object which the holder discards or intends or is required to discard'. However, a number of substances or phenomena are excluded from the scope of the Directive altogether. Among these are gaseous effluents emitted into the atmosphere; unexcavated contaminated soil;[17] radioactive waste; and, with some qualifications, faecal matter, straw, and other natural non-hazardous agricultural or forestry material used in farming, forestry, or for the production of energy. Other substances, including waste waters, carcasses of animals that have died other than by being slaughtered, and waste from the mining industry, are excluded to the extent that they are covered by other EU legislation. (Arts 2 and 3.)

12.2.1 The waste hierarchy and waste management

When developing and implementing waste law and policy, the Member States must be guided by the priority order of what constitutes the best overall environmental option established through the so-called waste hierarchy. Top priority shall be given to prevention, followed by preparing for re-use, recycling, and other recovery, including energy recovery. Least desirable is disposal.

'Prevention' covers measures taken before a substance, material, or product has become waste, and which reduce the quantity of waste, the adverse impacts of the generated waste on the environment and human health, or the content of harmful substances in materials and products. 'Re-use' refers to any operation by which products or components that are not waste are used again for the same purpose for which they were conceived, whereas 'recovery' is any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function. A non-exhaustive list of recovery operations can be found in Annex II. Among these are use principally as a fuel or other means to generate energy,[18] land treatment resulting in benefit to agriculture or ecological improvement, and recycling/reclamation of metals and metal compounds. 'Recycling' is any recovery operation by which waste materials are reprocessed into products,

[17] Such soil had previously been deemed to be waste by the Court of Justice in Case C-1/03 *Van de Walle and Others* ECLI:EU:C:2004:490.

[18] Incineration facilities dedicated to the processing of municipal solid waste must meet certain energy efficiency standards, set out in a footnote to point R 1 in Annex II, for the incineration to be considered a recovery operation.

materials, or substances whether for the original or other purposes. Any operation which is not recovery is defined as 'disposal' even if it has as a secondary consequence the reclamation of substances or energy. The non-exhaustive list of disposal operations set out in Annex I includes, inter alia, deposit into or on to land, release into a water body, and incineration on land or at sea.

Specific waste streams may depart from the hierarchy when that is justified by life-cycle thinking on the overall impacts of the generation and management of such waste. (Arts 3 and 4.)

There is a general requirement that waste management shall be carried out without endangering human health or harming the environment. In particular it shall be without risk to water, air, soil, plants, or animals; without causing a nuisance through noise or odours; and without adversely affecting the countryside or places of special interest. (Art 13.)

The Court of Justice has found an almost identical provision in an earlier directive to be neither unconditional nor sufficiently precise to confer rights on which individuals may rely against the State, that is, lacking direct effect.[19] In fact, it is quite hard to conceive how waste management, that is, collection, transport, recovery, and disposal of waste, could be carried out without even a risk to water and soil and without causing nuisance.

In addition to the waste hierarchy, the FDW contains more concrete provisions on waste prevention, reuse, and recovery. Member States are generally required to take the necessary measures to ensure that waste undergoes recovery operations. Where necessary to facilitate or improve recovery, waste shall be collected separately if technically, environmentally, and economically practicable, and shall not be mixed with other waste or other material with different properties. Member States also shall take measures, as appropriate, to promote the re-use of products and preparation for re-use activities, notably by encouraging the establishment and support of re-use and repair networks, the use of economic instruments, procurement criteria, quantitative objectives, or other measures.

More specifically, the Member States shall take the necessary measures designed to achieve specific targets, including that by 2020 the preparation for re-use and the recycling of at least waste paper, metal, plastic, and glass from households shall be increased to a minimum of overall 50 per cent by weight.[20] (Arts 10 and 11.)

The production of environmentally safe compost and other bio-waste based materials is to be promoted by encouraging the separate collection and proper treatment of bio-waste (Art 22).

[19] Case C-236/92 *Comitato di Coordinamento per la Difesa della Cava and Others* ECLI:EU:C:1994:60, para 14.

[20] As part of the Circular Economy Package the Commission has proposed additional targets, including that by 2025, the preparing for re-use and the recycling of municipal waste shall be increased to a minimum of 60 per cent by weight and that by 2030, the preparing for re-use and the recycling of municipal waste shall be increased to a minimum of 65 per cent by weight. See Proposal for a Directive of the European Parliament and of the Council amending Directive 2008/98/EC on waste (2 December 2015) COM(2015) 595 final, 18.

12.2.2 The problem of defining waste

Throughout the years the FDW has given rise to a large number of cases before the Court of Justice. The problem has predominantly been with the definition of waste and hence the applicability of waste legislation. Some of the more significant points in this chain of case law should be mentioned here. In 1990 the Court of Justice made clear that substances and objects which are capable of economic reutilisation are not excluded from the concept of waste.[21] That something has a positive value (ie someone is willing to pay for it) does not in itself prevent it from being classified as waste. In 1997, in *Inter-Environnement Wallonie*, the Court concluded that the scope of the term 'waste' turns on the meaning of the term 'discard', which covers both disposal and recovery of a substance or object.[22] In *ARCO Chemie Nederland* the Court of Justice went on to state that 'discard' must be interpreted in light of the aim of the FDW and that the concept of waste cannot be interpreted restrictively.[23] The Court also found that the method of treatment or use of a substance does not determine conclusively whether or not it is to be classified as waste. The mere fact that a substance undergoes a recovery operation does, for example, not necessarily mean that it has been discarded. It may, however, serve to indicate the existence of waste. That something is commonly regarded as waste or is subject to treatment that is a common method of recovering waste may also be taken as evidence that the holder has discarded that substance or intends or is required to discard it. The fact that an object or substance is not, or is no longer, of any use to its holder but rather constitutes a burden may also constitute such evidence. In the end, however, waste within the meaning of the FDW must be determined in the light of all the circumstances, regard being had to the aim of the Directive and the need to ensure that its effectiveness is not undermined.[24]

Discarding does not even have to involve an intentional act. The Court of Justice has, for example, found the escape of waste water from a sewerage network to constitute an event by which the sewerage undertaker discards it.[25] Hydrocarbons accidentally spilled at sea following a shipwreck have also been deemed to have been (involuntarily) discarded.[26] Typically, however, the determination of whether something is discarded is closely linked to the actions of the holder of the waste.[27]

The definition of waste clearly involves a trade-off between clarity and legal certainty on the one hand, and the desire to cover all situations in which there is a

[21] Joined cases C-206/88 and C-207/88 *Vessoso and Zanetti* ECLI:EU:C:1989:644.

[22] Case C-129/96 *Inter-Environnement Wallonie* EU:C:1997:628, paras 26–27.

[23] Joined Cases C-418/97 and C-419/97 *ARCO Chemie Nederland and Others* ECLI:EU:C:2000:318, paras 37 and 40.

[24] Ibid, paras 49, 64, and 73, and Joined Cases C-241/12 and C-242/12 *Shell Netherlands* EU:C:2013:821, paras 41 and 42. For a more detailed list of factors which, according to the applicable case law, should be taken into consideration in the determination of waste status see N de Sadeleer, 'Scrap Metal Intended for Metal Production: The Thin Line between Waste and Products' (2012) 9 *Journal for European Environmental & Planning Law* 136–63, 144–5.

[25] Case C-252/05 *Thames Water Utilities* ECLI:EU:C:2007:276, para 28.

[26] Case C-188/07 *Commune de Mesquer* ECLI:EU:C:2008:359, para 63.

[27] Joined Cases C-241/12 and C-242/12 *Shell Netherlands* (n 24), para 37.

significant risk that an object or substance will be handled in a way that is contrary to the objectives of the waste legislation on the other.

12.2.3 By-products and end-of-waste

A related problem to that of defining wastes is the delineation between waste and so-called by-products. The Court of Justice has concluded that the concept of waste does not in principle exclude any kind of residue, industrial by-product or other substance arising from production processes and that substances forming part of an industrial process may constitute waste.[28] The ensuing uncertainty is obviously liable to cause problems for many enterprises since the application of waste legislation to substances forming part of a normal industrial process may be costly and cumbersome whereas not doing so may amount to a violation of the law if the substance is found to be waste. The Court has later dealt with, inter alia, the question of whether a production residue that is used as fuel constitutes waste.[29]

Through the 2008 FDW the EU legislator has made an attempt, based largely on the relevant case law, to clarify the line between by-products and waste. This has been done by laying down conditions that must be met for a substance or object that results from a production process the primary aim of which is not the production of that item, to be regarded as a by-product and not as waste. Such a substance or object is a by-product only if: (a) further use is certain; (b) it can be used directly without any further processing other than normal industrial practice; (c) it is produced as an integral part of a production process; and (d) further use is lawful. The last point requires that the substance or object fulfils all relevant product, environmental, and health protection requirements for the specific use and will not lead to overall adverse environmental or human health impacts. If the use of a by-product is allowed under an environmental licence or general environmental rules, this can be used by Member States as a tool to decide that no overall adverse environmental or human health impacts are expected to occur.[30] When applying the case law on which the conditions regarding by-product status in the 2008 FDW are based, the Court of Justice has held that it is for the legal systems of the Member States to determine upon whom rests the burden of proof as to fulfilment of the criteria for by-product status. However, national rules must not result in it being excessively difficult to prove that substances must be regarded as by-products. At the same time it is clear that as a general rule only the holder of a substance or object can prove that she intends not to discard that substance or object but to permit its reuse in circumstances that are consistent with it being classified as a by-product.[31]

On the basis of these conditions, measures may be adopted, in accordance with the regulatory procedure with scrutiny, to determine the criteria to be met for

[28] Case C-129/96 *Inter-Environnement Wallonie* (n 22), paras 28 and 32.
[29] Joined Cases C-418/97 and C 419/97 *ARCO Chemie* (n 23).
[30] Preambular para 22. [31] Case C-113/12 *Brady* ECLI:EU:C:2013:627, paras 61–64.

specific substances or objects to be regarded as a by-product and not as waste. At the time of writing no such measures had yet been adopted.

A related problem has been the determination of when a substance or object that has undergone a recovery operation ceases to be waste. The Court of Justice has addressed this issue on several occasions. It has, inter alia, found that the fact that a substance is the result of a complete recovery operation is only one of the factors to be taken into consideration for the purpose of determining whether it still constitutes waste.[32]

Also in this area, the EU legislator has intended to clarify the legal situation by including a provision in the 2008 FDW. The Directive now sets out conditions to be used for the development of so-called end-of-waste criteria for specified waste. The four conditions to be met are: (a) that the substance or object is commonly used for specific purposes; (b) that a market or demand exists for such a substance or object; (c) that it fulfils the technical requirements for the specific purposes and meets the existing legislation and standards applicable to products; and (d) that its use will not lead to overall adverse environmental or human health impacts. On the basis of these conditions specific criteria shall be developed for determining when specified waste, including paper, glass, metal, tyres, and textile, shall cease to be waste after having undergone a recovery operation. Such measures are adopted in accordance with the regulatory procedure with scrutiny. So far criteria have been decided, inter alia, for certain types of scrap metal and for glass cullet.[33] Where end-of-waste criteria have not been set at EU level, Member States may decide case-by-case whether certain waste has ceased to be waste, taking into account the applicable case law. The Commission is to be notified of any such decisions. (Art 6.)

12.2.4 Responsibility for waste management and its costs

Any original waste producer or other holder shall be required to either carry out the treatment of waste herself or have it handled by someone who carries out waste treatment operations in accordance with pertinent provisions of the FDW. Treatment may also be arranged by a private or public waste collector. Member States may specify the conditions of responsibility and decide in which cases the original producer is to retain responsibility for the whole treatment chain or in which cases the responsibility of the producer and the holder can be shared or delegated among the actors of that chain (Art 15). This does not mean that Member States must permit an original waste producer or waste holder to dispose of waste independently and thereby, for example, be exempted from liability for payment of a municipal tax for

[32] Joined Cases C 418/97 and C 419/97 *ARCO Chemie* (n 23), para 95. See also Case C-457/02 *Niselli* ECLI:EU:C:2004:707.

[33] Council Regulation (EU) No 333/2011 establishing criteria determining when certain types of scrap metal cease to be waste under Directive 2008/98/EC of the European Parliament and of the Council [2011] OJ L 94/2; Commission Regulation (EU) No 1179/2012 establishing criteria determining when glass cullet ceases to be waste under Directive 2008/98/EC of the European Parliament and of the Council [2012] OJ L 337/31.

the disposal of waste.[34] The Court of Justice has pointed out that EU law does not impose any specific method upon the Member States for financing the cost of waste management and that such cost may equally well be financed by means of a tax or a charge, or in any other manner.[35]

Subject to some exceptions, any establishment or undertaking intending to carry out waste treatment shall be required to obtain a permit from the competent authority. The permit shall specify, inter alia, the types and quantities of waste that may be treated, the method to be used, and the safety and precautionary measures to be taken. Incineration or co-incineration with energy recovery may only be permitted if the recovery of energy takes place with a high level of energy efficiency. (Arts 23–24.)

The requirement that waste treatment may not be carried out without a permit also entails an obligation for the Member States to make sure that the permit system set up is in fact applied and complied with, in particular by conducting appropriate checks for that purpose and ensuring that operations carried out without a permit are brought to an end and punished.[36]

The re-use and the prevention, recycling, and other recovery of waste may be strengthened through the introduction of so-called extended producer responsibility. Such measures may include an acceptance of returned products and of the waste that remains after those products have been used, as well as the subsequent management of the waste and financial responsibility for such activities. Member States may encourage the design of products in order to reduce their environmental impacts and the generation of waste in the course of the production and subsequent use of products.[37] (Art 8.)

There is also specific EU legislation on producer responsibility, which is discussed presently in the subchapter on specific waste streams.

The FDW requires that the costs of waste management be borne by the original waste producer or by the current or previous waste holders in accordance with the polluter-pays principle. However, Member States may decide that the costs are to be borne partly or wholly by the producer of the product from which the waste came and that the distributors of such a product may share these costs.[38] (Art 14.)

The Court of Justice has found it acceptable, subject to some conditions, that taxes or charges for waste management are calculated on the basis of an estimate of the volume of waste generated by users of that service rather than on the basis of the quantity of waste which they have actually produced and presented for collection.[39]

[34] Case C-551/13 *SETAR* ECLI:EU:C:2014:2467, para 41.

[35] Ibid, para 47.

[36] Case C-196/13 *Commission v Italy* ECLI:EU:C:2014:2407, para 61.

[37] As part of the Circular Economy Package the Commission has proposed to introduce minimum operating requirements for extended producer responsibility. See COM(2015) 595 final (n 20) 15–16.

[38] In previous versions of the FDW the responsibility of the producer of the product from which the waste came was not subject to Member State discretion but followed directly from the Directive. On the implications of that responsibility, see Case C-188/07 *Commune de Mesquer* (n 26), para 82.

[39] Case C-254/08 *Futura Immobiliare and Others* ECLI:EU:C:2009:479, para 57.

In order to enable the EU to become self-sufficient in waste disposal and in the recovery of waste collected from private households, and to enable the Member States to move towards that aim individually, the Member States must establish an integrated and adequate network of waste disposal installations and of installations for the recovery of mixed municipal waste collected from private households. Where necessary or advisable, this shall be made in cooperation with other Member States. The network shall enable waste to be disposed of or waste collected from private households to be recovered in one of the nearest appropriate installations, by means of the most appropriate methods and technologies, in order to ensure a high level of protection for the environment and public health. According to the Court of Justice Member State authorities are empowered to regulate or organise the management of such waste in such a way that it is treated in the nearest appropriate facility.[40] In order to protect their networks the Member States may under certain circumstances limit incoming shipments of waste as well as outgoing shipments of waste on environmental grounds. This is further discussed below in the context of the regulation of shipments of waste. (Art 16.)

12.2.5 Hazardous waste

In 1978 the then EEC adopted a Directive on toxic and dangerous waste, which was replaced by a new directive in 1991.[41] However, in 2008 that was repealed by the new FDW, which defines and regulates what is now called hazardous waste.

Any waste which displays one or more of the hazardous properties listed in Annex III to the FDW is 'hazardous waste'. Among the properties listed are explosive, corrosive, carcinogenic, and ecotoxic, as defined in the Annex. However, there is also a list of wastes set out in a Commission Decision and any waste marked with an asterisk (*) in that list, as amended, shall be considered as hazardous waste.[42] But a Member State may consider waste as non-hazardous even though it is marked with an asterisk if it has evidence to show that that specific waste does not display any of the properties listed in Annex III.

Member States are generally required to ensure that the production, collection, transportation, storage, and treatment of hazardous waste are carried out in conditions providing protection for the environment and human health. With some exceptions, hazardous waste may not be mixed, either with other categories of hazardous waste or with other waste, substances, or materials. Hazardous waste must also be packaged and labelled in accordance with applicable international and EU standards and, whenever transferred within a Member State, accompanied by an

[40] Case C-292/12 *Ragn-Sells* ECLI:EU:C:2013:820, para 62.

[41] Council Directive 78/319/EEC on toxic and dangerous waste [1978] OJ L84/43.

[42] Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste [2000] J L226/3.

identification document. Exemptions apply with respect to mixed waste produced by households. (Arts 3, 7, and 17–20.)

The Court of Justice has also confirmed that waste classified as hazardous may cease to be waste if it undergoes a recovery operation that enables it to be made usable without endangering human health or harming the environment.[43]

12.2.6 Waste management plans and waste prevention programmes

Each Member State must establish one or more waste management plans which, alone or in combination, cover the entire Member State concerned. These plans shall set out an analysis of the current waste management situation, as well as the measures to be taken to improve environmentally sound preparing for re-use, recycling, recovery, and disposal of waste. Member States must also establish waste prevention programmes setting out waste prevention objectives and measures which aim to break the link between economic growth and the environmental impacts associated with the generation of waste. The waste management plans and waste prevention programmes are to be evaluated at least every sixth year and revised as appropriate. Relevant stakeholders and authorities as well as the general public must have the opportunity to participate in the elaboration of these plans and programmes. (Arts 28–31.)

Directive 2008/98/EC also contains provisions on periodic inspections and the keeping of chronological records by establishments or undertakings that carry out waste treatment (Arts 34 and 35). Member States shall furthermore take the necessary measures to prohibit the abandonment, dumping, or uncontrolled management of waste (Art 36).

12.3 Shipments of Waste

Since 1994 the EU has been a party to the Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal ('the Basel Convention'), which imposes a requirement for prior informed consent for most waste exports and also, subject to the entry into force of an amendment, prohibits export of waste for disposal to most non-OECD States.[44] The Basel Convention furthermore requires export of hazardous waste and other waste to be reduced to the minimum consistent with the environmentally sound and efficient management of such waste.

[43] Case C-358/11 *Lapin luonnonsuojelupiiri* ECLI:EU:C:2013:142, para 60.

[44] Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal ('Basel Convention') (Basel, 22 March 1989) 1673 UNTS 57. For a detailed account of the Convention, the so-called ban amendment, and the EU's position see D Langlet *Prior Informed Consent and Hazardous Trade: Regulating Trade in Hazardous Goods at the Intersection of Sovereignty, Free Trade and Environmental Protection* (2nd edn, Kluwer Law International, 2009) Chap 5.

In 1984 the then EEC adopted a Directive on the supervision and control within the European Community of the transfrontier shipment of hazardous waste.[45] An amendment in 1986 extended its scope to the export of hazardous waste to non-Member States. In 1992 the OECD Council adopted a decision on the control of transfrontier movements of waste destined for recovery operations which introduced a three-tier system classifying waste into 'green', 'amber', and 'red' lists respectively, and prescribed specific control measures to be applied with regard to amber- and red-list waste.[46]

Following the EEC's signing of the Basel Convention and its approval of the OECD Decision, the Directive was replaced in 1993 by Regulation (EEC) No 259/93 on the supervision and control of shipments of waste within, into, and out of the European Community.[47] In 2006 that regulation too was repealed and replaced by Regulation (EC) No 1013/2006 on shipments of waste, which incorporated several amendments made to the previous regulation.[48]

The 2006 Regulation establishes procedures and control regimes for the shipment of waste. These procedures and regimes differ depending on the origin, destination, and route of the shipment; the type of waste shipped; and the type of treatment to be applied to the waste at its destination. It does not apply to shipments of radioactive waste or to the offloading to shore of waste generated by the normal operation of ships and offshore platforms (Art 1). It should be noted that shipments of radioactive waste and spent fuel are the subject of a Euratom Directive which is not further discussed here.[49]

The Regulation is extensive (sixty-four articles and nine annexes) and quite complex.[50] It is divided into seven Titles dealing with, inter alia, shipments within the EU (Title II), shipments exclusively within Member States (Title III), exports from the EU to third countries (Title IV), imports into the EU from third countries (Title V), and transit through the EU from and to third countries (Title VI). The high level of complexity is partly due to the fact that the Regulation is used to comply with the Union's obligations under the Basel Convention and the OECD decision concerning the control of transboundary movements of waste destined for recovery operations as well as with other international commitments.[51]

[45] Council Directive 84/631/EEC on the supervision and control within the European Community of the transfrontier shipment of hazardous waste [1984] OJ L 326/31.

[46] Decision of the Council Concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations (30 March 1992) C (92)39/Final.

[47] Council Regulation (EEC) No 259/93 on the supervision and control of shipments of waste within, into and out of the European Community [1993] OJ L 30/1.

[48] Regulation (EC) No 1013/2006 of the European Parliament and of the Council on shipments of waste [2006] OJ L 190/1.

[49] Council Directive 2006/117/Euratom on the supervision and control of shipments of radioactive waste and spent fuel [2006] OJ L 337/21.

[50] Jans and Vedder characterise it as 'an extremely complicated piece of legislation'. J H Jans and H H B Vedder *European Environmental Law After Lisbon* (4th edn, Europa Law Publishing, 2011) 492.

[51] The currently applicable OECD decision is the Decision of 14 June 2001, C(2001)107/FINAL, as amended. On other international agreements in this area see Langlet *Prior Informed Consent and Hazardous Trade* (n 44) Chap 5.

Briefly put, shipments of waste between Member States are subject to a procedure of prior written notification and consent when the waste is destined for disposal or if it is hazardous waste destined for recovery. In these cases consent is required from both the competent authority for the area to which the shipment is planned or takes place and the competent authority for the area from which the shipment is planned to be initiated or is initiated, as well as, where relevant, the competent authority for any country of transit. (Arts 3 and 9.)

A competent authority of destination or dispatch may consent to a shipment destined for disposal or raise reasoned objections based on a number of grounds. Among these are that the planned shipment or disposal would not be in accordance with measures taken to implement the principles of proximity, priority for recovery, and self-sufficiency at EU and national levels in accordance with the FDW (Directive 2008/98/EC) to prohibit generally or partially or to object systematically to shipments of waste; or that it would not be in accordance with national legislation relating to environmental protection, public order, public safety, or health protection concerning actions taking place in the objecting country. The legitimate reasons for raising objections to shipments of hazardous waste destined for recovery are similar but more limited. (Arts 11 and 12.)

Shipments of non-hazardous waste destined for recovery operations do not need prior consent but must be accompanied by a standardised information document, drawn up on the basis of a contract which must comply with certain requirements (Art 18).

The principle of proximity, which, according to Article 16 of the FDW, applies to certain waste, has implications for the shipment of waste between Member States. As previously mentioned, Member States shall establish an integrated and adequate network of waste disposal installations and of installations for the recovery of mixed municipal waste collected from private households. By way of derogation from Regulation (EC) No 1013/2006, Member States may, in order to protect their networks, limit incoming shipments of waste destined to incinerators that are classified as recovery, where it has been established that such shipments would result in national waste having to be disposed of or waste having to be treated in a way that is not consistent with their waste management plans. Also, the grounds for limiting outgoing shipments of waste in Regulation (EC) No 1013/2006 may be read in the light of this article in the FDW.

The Court of Justice has found that a local authority may require the undertaking responsible for the collection of waste on its territory to transport mixed municipal waste collected from private households and, as applicable, other producers, to the nearest appropriate treatment facility established in the same Member State. But such a de facto general prohibition on shipments of waste to other facilities, including those in other Member States, is not permissible in relation to waste destined for recovery operations other than mixed municipal waste, since the principle of proximity does not apply to them.[52]

[52] Case C-292/12 *Ragn-Sells* (n 40), paras 63 and 66.

For all shipments of waste for which prior notification is required, a contract must be concluded between the notifier and the consignee for the recovery or disposal of the notified waste. Among other things, the contract must oblige the notifier to take the waste back if the shipment or the recovery or disposal has not been completed as intended or if it has been effected as an illegal shipment. Such shipments must also be covered by a financial guarantee or equivalent insurance covering costs of transport, of recovery or disposal, and of storage for ninety days. (Arts 5 and 6.)

Where a shipment of waste, including its recovery or disposal, cannot be completed as intended, the waste in question shall, with some exceptions, be taken back to the country of dispatch (Art 22).

Also with respect to shipments of waste that take place exclusively within its own jurisdiction, each Member State is required to establish appropriate systems for supervision and control (Art 33).

All exports of waste from the EU destined for disposal are prohibited, with the exception of exports destined for disposal in EFTA countries which are also Parties to the Basel Convention (ie Iceland, Norway, and Switzerland) (Art 34). Exports from the EU of hazardous waste and waste collected from households destined for recovery in countries to which the OECD Decision does not apply, that is, non-OECD countries, are, with some limited exceptions, also prohibited. Non-hazardous waste intended for recovery may be exported to countries to which the OECD decision does not apply according to a particular procedure by which the Commission shall send written requests to each such country asking for a confirmation in writing that non-hazardous waste may be exported for recovery in that country. Export of waste destined for recovery in countries to which the OECD Decision does apply is subject to a procedure of prior written notification and consent when the waste is hazardous or has been collected from households. (Arts 37 and 38.)

Imports into the EU of waste destined for disposal are only allowed from countries which are Parties to the Basel Convention and other countries with which bilateral or multilateral agreements or arrangements compatible with EU law and the Basel Convention have been concluded. Imports into the EU of waste destined for recovery are also allowed from Parties to the Basel Convention and countries with which bilateral or multilateral agreements or arrangements have been concluded, with the addition of countries to which the OECD Decision applies. (Arts 41 and 43.)

All undertakings involved in a shipment of waste and/or its recovery or disposal shall take the necessary steps to ensure that any waste they ship is managed without endangering human health and in an environmentally sound manner (Art 49).

Waste subject to prior written notification and consent is listed in Annex IV (the 'amber' list), whereas waste subject only to a general information requirement is listed in Annex III (the 'green' list). Annex V lists waste subject to export prohibition.

The Regulation is based on an article corresponding to the current article 192(1) TFEU and the preamble makes clear that its predominant objective is the protection of the environment, whereas its effects on international trade are only incidental.

12.4 Landfill of Waste

Landfills are associated with significant environmental problems, in addition to the fact that landfilling in itself is contrary to the idea of a circular economy in which natural recourses are wasted as little as possible. These problems include risk of pollution of surface water, groundwater, soil, and air, and emissions of greenhouse gases, particularly methane and carbon dioxide. Directive 1999/31/EC on the landfill of waste, based on an article corresponding to the current Article 192(1) TFEU, aims to provide for measures, procedures, and guidance to prevent or reduce as far as possible negative effects on the environment from landfilling of waste, during the whole life-cycle of the landfill[53] (Art 1).

A 'landfill' is defined as a waste disposal site for the deposit of the waste onto or into land (ie underground), including internal waste disposal sites where a producer of waste is carrying out its own waste disposal at the place of production, and permanent sites (defined as more than one year) which are used for temporary storage of waste. Storage of waste prior to disposal, recovery, or treatment is exempted within certain time limits.

Some measures which could otherwise qualify as landfill are excluded. These include the spreading of sludges and similar matter on the soil for the purposes of fertilisation or improvement, the use of inert waste which is suitable, in redevelopment/restoration and filling-in work or for construction purposes, in landfills, and the deposit of unpolluted soil or of non-hazardous inert waste resulting from prospecting and extraction, treatment, and storage of mineral resources as well as from the operation of quarries. Member States may also choose to exempt non-hazardous or inert waste from certain parts of the Directive. (Arts 2 and 3.)

All landfills must be classified as either landfill for hazardous waste, landfill for non-hazardous waste, or landfill for inert waste. Waste is inert if it does not undergo any significant physical, chemical, or biological transformations. (Arts 2 and 4.)

Each Member State must have a national strategy for the implementation of the reduction of biodegradable waste going to landfills. It shall ensure that by no later than 16 July 2016, biodegradable municipal waste going to landfills is reduced to 35 per cent of the total amount (by weight) of biodegradable municipal waste produced in 1995. However, Member States which in 1995 put more than 80 per cent of their collected municipal waste into landfill may postpone the attainment of this target by a maximum of four years.

Certain kinds of waste are not to be accepted in landfills at all. Among these are: liquid waste; waste which, in the conditions of landfill, is explosive, corrosive, oxidising, or flammable; hospital and other clinical wastes arising from medical or veterinary establishments which are infectious; and, with some exceptions, used tyres. Any other waste that is to be put into landfill must fulfil acceptance criteria determined in accordance with Annex II. The dilution or mixture of waste solely in order to meet the waste acceptance criteria is prohibited. (Art 5.)

[53] [1999] OJ L 182/1.

To be accepted in a landfill, waste must also have been subject to treatment involving physical, thermal, chemical, or biological processes, including sorting, that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling, or enhance recovery. This does not apply to inert waste for which treatment is not technically feasible, nor to any other waste for which such treatment does not reduce the quantity of the waste or the hazards to human health or the environment. (Arts 2 and 6.)

For a permit to be granted for a landfill it must comply with all relevant requirements of the Directive, its management must be in the hands of a natural person who is technically competent to manage the site, and the necessary measures must be taken to prevent accidents and limit their consequences. The applicant must also make adequate provisions, by way of a financial security or an equivalent, prior to the commencement of disposal operations to ensure that the obligations arising under the permit, including those relating to after-care, are discharged and that the closure procedures are followed. (Arts 7 and 8.)

The Directive also contains provisions on specific procedures for accepting waste at landfill sites and control and monitoring procedures in the operational phase. After a landfill has been definitely closed, the operator shall be responsible for its maintenance, monitoring, and control in the so-called after-care phase for as long as may be required by the competent authority. This includes monitoring and analysing landfill gas and leachate from the site and the groundwater regime in the vicinity of the site. (Arts 11–13.)

Transitional rules apply to landfills which had been granted a permit, or which were already in operation, at the time of transposition of the Directive, that is, in 2001 (Art 14).

The operator of a landfill site shall charge a price for the disposal of any type of waste. The price shall cover the costs involved in the setting up and operation of the site as well as the estimated costs of closure and after-care for a period of at least thirty years. (Art 10.)

As part of the Circular Economy Package, the Commission has proposed the addition of an obligation to ensure that by 2030 the amount of municipal waste put into landfill is reduced to 10 per cent of the total amount of such waste generated.[54]

12.5 Specific Waste Streams

12.5.1 Packaging and packaging waste

Directive 94/62/EC on packaging and packaging waste aims to harmonise national measures concerning the management of packaging and packaging waste in

[54] Proposal for a Directive of the European Parliament and of the Council amending Directive 1999/31/EC on the landfill of waste (2 December 2015) COM(2015) 594 final, 11. Some Member States may get five additional years to reach the target.

order, on the one hand, to prevent its impact on the environment or to reduce such impact, and on the other hand, to ensure the functioning of the internal market[55] (Art 1). The legal basis used is one corresponding to the current Article 114 TFEU, that is, the internal market.[56] The Directive covers all packaging placed on the market in the EU and all packaging waste. The term 'packaging' refers to all products made of any materials of any nature to be used for the containment, protection, handling, delivery, and presentation of goods from the producer to the user or the consumer. (Arts 2 and 3.)

Packaging may be placed on the market only if it complies with a number of essential requirements on the composition and the reusable and recoverable nature of packaging (Art 9 and Annex II). Other preventive measures must also be implemented, such as national programmes to introduce producer responsibility to minimise the environmental impact of packaging (Arts 4 and 6).

Member States must have systems set up to provide for the return and/or collection of used packaging and/or packaging waste from the consumer, other final user, or from the waste stream and reuse or recovery, including recycling of the packaging and/or packaging waste collected. Users of packaging must be informed about the return, collection, and recovery systems available to them and their role in contributing to reuse, recovery, and recycling of packaging and packaging waste. The Directive also lays down specific minimum recycling and recovery targets.[57] In 2014 the Commission reported that these targets have generally been met, but that some uncertainty exists as to the accuracy of the reported data.[58] (Arts 6, 7, and 13.)

An amendment in 2015 introduced requirements on sustained reduction in the consumption of lightweight plastic carrier bags.[59] Member States may choose between (or opt for both) the adoption of measures which ensure that the annual consumption level does not exceed ninety lightweight plastic carrier bags per person by 31 December 2019 and forty lightweight plastic carrier bags per person by 31 December 2025, or equivalent targets set in weight; or the adoption of instruments ensuring that, by 31 December 2018, lightweight plastic carrier bags are not provided free of charge at the point of sale of goods or products, unless equally effective instruments are implemented. Very lightweight plastic carrier bags may be excluded from those measures. (Art 4.)

[55] [1994] OJ L 365/10.

[56] However, the Directive does not bring about an exhaustive harmonisation of return, collection, and recovery systems for packaging and packaging waste. Case C-198/14 *Visnapuu* ECLI:EU:C:2015:751, paras 44–46.

[57] As part of the Circular Economy Package the Commission has proposed new targets. See Proposal for a Directive of the European Parliament and of the Council amending Directive 94/62/EC on packaging and packaging waste (2 December 2015) COM(2015) 596 final, 11.

[58] Ex-post evaluation of certain waste stream Directives, Final report, European Commission—DG Environment (18 April 2014) 7.

[59] Directive (EU) 2015/720 of the European Parliament and of the Council amending Directive 94/62/EC as regards reducing the consumption of lightweight plastic carrier bags [2015] OJ L 115/11.

The Court of Justice has pointed out that Directive 94/62 must be considered to be special legislation (*lex specialis*) vis-à-vis the FDW, so that the provisions of the former prevail over those of the latter in situations which the former specifically seeks to regulate.[60]

12.5.2 End-of-life vehicles

Directive 2000/53/EC on end-of-life vehicles was, when adopted in 2000, the first EU legislation prescribing producer responsibility.[61] It aims at the prevention of waste from vehicles and at the reuse, recycling, and other forms of recovery of end-of-life vehicles and their components so as to reduce the disposal of waste, as well as at the improvement in the environmental performance of all of the economic operators involved in the life-cycle of vehicles. An 'end-of-life vehicle' is a vehicle which is waste within the meaning of Directive 2008/98/EC. (Arts 1 and 2.)

In order to promote the prevention of waste, Member States must encourage vehicle manufacturers to limit the use of hazardous substances in vehicles; to design and produce new vehicles which take into full account and facilitate the dismantling, reuse, and recovery, in particular the recycling, of end-of-life vehicles, their components, and materials; and to integrate an increasing quantity of recycled material in vehicles and other products, in order to develop the markets for recycled materials. Materials and components of vehicles put on the market after 1 July 2003 must not contain lead, mercury, cadmium, or hexavalent chromium other than in specific cases listed in Annex II (Art 4). According to the Commission, these substances have been almost completely removed from vehicles.[62]

Economic operators are to set up systems for the collection of all end-of-life vehicles and, as far as is technically feasible, of waste used parts removed when passenger cars are repaired. The Member States must ensure that all end-of-life vehicles are transferred to authorised treatment facilities. They shall also set up a system according to which the presentation of a certificate of destruction is a condition for deregistration of an end-of-life vehicle. Such certificates shall be issued to the holder and/or owner when end-of-life vehicles are transferred to a treatment facility. (Art 5.)

The Directive also sets specific reuse and recovery targets to be attained by economic operators, including that the reuse and recovery rate for all end-of-life vehicles had to reach a minimum of 95 per cent by an average weight per vehicle no later than 1 January 2015 (Art 7). In 2014 most Member States were deemed to be on track to reaching the targets, although there were some issues with reliability of data. The collection, shipment, and treatment of end-of-life vehicles by illegal operators are also reported to pose a challenge to the achievement of the environmental

[60] Case C-444/00 *Mayer Parry Recycling* ECLI:EU:C:2003:356, para 57.
[61] [2000] OJ L 269/34.
[62] Ex-post evaluation of certain waste stream Directives (n 58), 9.

benefits of the Directive.[63] Also, the increasing introduction of complex electronic systems and composite materials in vehicles represents significant challenges to recycling.[64]

The fact that the Directive, despite being based on a Treaty article corresponding to the current Article 192(1) TFEU, has been deemed to prevent a Member State from taking certain measures that would entail a more stringent environmental protection was discussed in section 4.2.3.

It should be noted that there is also a Directive 2005/64/EC on the type-approval of motor vehicles with regard to their reusability, recyclability, and recoverability which lays down the administrative and technical provisions for the type-approval of certain vehicles with a view to ensuring that their component parts and materials can be reused, recycled, and recovered.[65]

12.5.3 Waste electrical and electronic equipment (WEEE)

A first directive concerning producer responsibility for waste electrical and electronic equipment (WEEE) was adopted in 2003.[66] It was recast in 2012 as Directive 2012/19/EU on waste electrical and electronic equipment, based on Article 192(1) TFEU.[67] It lays down measures to protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of WEEE and by reducing overall impacts of resource use and improving the efficiency of such use. Subject to a transitional period ending on 14 August 2018, the Directive applies to all electrical and electronic equipment (EEE) with a few exceptions. These include equipment which is necessary for the protection of the essential interests of the security of Member States, large-scale stationary industrial tools, and large-scale fixed installations.

EEE is equipment which is dependent on electric currents or electromagnetic fields in order to work properly and equipment for the generation, transfer, and measurement of such currents and fields and designed for use below a certain voltage rating. EEE which is waste within the meaning of Directive 2008/98/EC counts as WEEE. (Art 3.)

Member States are to encourage cooperation between producers and recyclers and promote the design and production of EEE in view of facilitating re-use, dismantling, and recovery of WEEE, its components, and its materials (Art 4).

For WEEE from private households, systems must be set up which allow final holders and distributors to return such waste at least free of charge.

When supplying a new product, distributors shall be responsible for ensuring that such waste can be returned to the distributor at least free of charge on a one-to-one basis as long as the equipment is of equivalent type and has fulfilled the same

[63] Ibid. [64] Ibid, 10. [65] [2005] OJ L 310/10.

[66] Directive 2002/96/EC of the European Parliament and of the Council on waste electrical and electronic equipment (WEEE) [2003] OJ L 37/24.

[67] [2012] OJ L 197/38.

functions as the supplied equipment. Derogations are allowed as long as they do not make returning the WEEE more difficult for the final holder.

At large retail shops distributors must be required to provide, with some exceptions, for the collection of very small WEEE free of charge to end-users and with no obligation to buy EEE of an equivalent type. There are also compulsory collection rates to be achieved based on the 'producer responsibility' principle. From 2019, the minimum collection rate to be achieved annually is 65 per cent of the average weight of EEE placed on the market in the three preceding years in the Member State concerned, or alternatively 85 per cent of WEEE generated on the territory of that Member State. Certain Member States may, because of their lack of the necessary infrastructure and their low level of EEE consumption, postpone the achievement of this collection rate until 14 August 2021. (Arts 5 and 7.)

The Member States must ensure that all separately collected WEEE undergoes proper treatment (Art 8).

The collection, treatment, recovery, and environmentally sound disposal of WEEE from private households that has been deposited at collection facilities are to be paid for by producers. For products placed on the market later than 13 August 2005, each producer shall be responsible for financing these operations relating to the waste from its own products. A producer may choose to fulfil this obligation either individually or by joining a collective scheme. When placing a product on the market, producers must be required to mark their products and to provide a guarantee showing that the management of all WEEE will be financed. With respect to WEEE from products placed on the market on or before 13 August 2005 ('historical waste'), the costs shall be borne by one or more systems to which all producers existing on the market when the respective costs occur contribute proportionately. Similar requirements apply with respect to WEEE from users other than private households, although the rules for historical waste are partly different. (Arts 12 and 13.)

Users of EEE in private households must be given the necessary information about, inter alia, the requirements not to dispose of WEEE as unsorted municipal waste and to collect WEEE separately, and the return and collection systems available to them (Art 14).

12.5.4 Batteries and accumulators

Directive 2006/66/EC on batteries and accumulators and waste batteries and accumulators seeks to improve the environmental performance of batteries and accumulators and of the activities of all economic operators involved in the life-cycle of these products.[68] It does so primarily by prohibiting the placing on the market of batteries and accumulators containing hazardous substances and by laying down rules for the collection, treatment, recycling, and disposal of waste batteries and

[68] [2006] OJ L 266/1.

accumulators. Generally collection rates are very high for automotive and industrial batteries, whereas rates for portable batteries vary significantly, both between different types of such batteries and between Member States.[69]

12.5.5 PCB/PCT

Directive 96/59/EC on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT) requires the Member States to ensure that used PCBs are disposed of and PCBs and equipment containing PCBs are decontaminated or disposed of as soon as possible.[70]

12.5.6 Waste from extractive industries

Directive 2006/21/EC on the management of waste from extractive industries provides for measures, procedures, and guidance to prevent or reduce as far as possible any adverse effects on the environment, and any resultant risks to human health, brought about as a result of the management of waste from the extractive industries.[71] With some exceptions, such as waste resulting from offshore activities, it covers the management of waste resulting from the prospecting, extraction, treatment and storage of mineral resources and the working of quarries, called 'extractive waste'. (Arts 1 and 2.)

Member States shall ensure that the operator takes all measures necessary to prevent or reduce as far as possible any adverse effects on the environment and human health brought about as a result of the management of extractive waste. This includes the prevention of major accidents and the limiting of their consequences for the environment and human health. The abandonment, dumping, or uncontrolled depositing of extractive waste must be prohibited. (Art 4.)

Operators shall be required to draw up waste management plans for the minimisation, treatment, recovery, and disposal of extractive waste, taking account of the principle of sustainable development.

The Directive complements the Seveso Directive (now Directive 2012/18/EU) by requiring the identification of major accident hazards and the incorporation of necessary features into the design, construction, operation and maintenance, closure, and after-closure of waste facilities in order to prevent and to limit the adverse consequences of such accidents (Art 6).

Prior to the commencement of any operations involving the accumulation or deposit of extractive waste in a waste facility, the competent authority must require a financial guarantee or equivalent so that all obligations under the permit, including after-closure provisions, are discharged and so that there are funds readily available at any given time for the rehabilitation of the land affected by the waste facility (Art 14).

[69] Ex post evaluation of certain waste stream Directives (n 58) 10.
[70] [1996] OJ L 243/31. [71] [2006] OJ L 102/15.

Rules on waste from the titanium dioxide industry were previously laid down in a separate directive but have, since 2014, been integrated into the IED (Directive 2010/75/EU).[72]

12.5.7 Sludge

In this context mention should be made of Directive 86/278/EEC on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture.[73] As the title indicates, it aims to regulate the use of sewage sludge in agriculture in such a way as to prevent harmful effects on soil, vegetation, animals, and man, thereby encouraging the correct use of such sewage sludge. Among other things, it requires sludge to be used in such a way that account is taken of the nutrient needs of the plants and that the quality of the soil and of the surface and ground water is not impaired. It also sets out limit values for concentrations of heavy metals in soil to which sludge is applied, concentrations of heavy metals in sludge, and the maximum annual quantities of such heavy metals which may be introduced into soil intended for agriculture.

12.5.8 Ship-generated waste and cargo residues

Directive 2000/59/EC on port reception facilities for ship-generated waste and cargo was adopted in 2000 to reduce the discharges of ship-generated waste and cargo residues into the sea, especially illegal discharges, from ships using ports in the EU, by improving the availability and use of port reception facilities[74] (Art 1). It applies to all ships, including fishing vessels and recreational craft, irrespective of their flag, calling at, or operating within, a port of a Member State. Ships used only on government non-commercial services are excluded.

For each port normally visited by ships covered by the Directive, the Member States shall ensure the availability of port reception facilities. These shall be adequate to meet the needs of the ships normally using the port without causing undue delay to ships. For each port an appropriate waste reception and handling plan must be developed and implemented following consultations with the relevant parties. (Arts 4 and 5.)

With some exceptions, the master of a ship calling at an EU port shall, before leaving the port, deliver all ship-generated waste to a port reception facility. The costs of such facilities, including the treatment and disposal of the waste, shall be covered through the collection of a fee from ships. The cost recovery systems must not provide any incentive for ships to discharge their waste into the sea. Specific provisions apply to cargo residues. (Arts 7, 8, and 10.)

[72] See Council Directive 78/176/EEC on waste from the titanium dioxide industry [1978] OJ L 54/19.

[73] [1986] OJ L 181/6. [74] [2000] OJ L 332/81.

Member States must ensure that any ship may be subject to an inspection in order to verify that it complies with the requirement to deliver ship-generated waste and cargo residues and that a sufficient number of such inspections is carried out (Art 11).

12.5.9 Ship recycling

Around 1,000 large end-of-life ships are broken up and recycled every year across the world. This is often done under very poor conditions in terms of work safety and protection of the environment. Ships which constitute waste and which are subject to a transboundary movement for recycling are regulated by the Basel Convention, implemented in the EU through Regulation (EC) No 1013/2006 on shipments of waste. However, these instruments, and the related mechanisms for monitoring and enforcement, are not adapted to the specificities of ships and international shipping. This recognition prompted the adoption, in 2009, of the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships ('the Hong Kong Convention').[75] When coming into force it will introduce international requirements relating to the design, the construction, the operation, and the preparation of ships, as well as on the operation of ship recycling facilities, with a view to facilitating safe and environmentally sound recycling.[76]

In order to facilitate early ratification of the Hong Kong Convention both within the Union and in third countries by applying proportionate controls to ships and ship recycling facilities on the basis of that Convention the EU has adopted Regulation (EU) No 1257/2013 on ship recycling.[77] The Regulation, which is based on Article 192(1) TFEU, implements the Convention in EU law but also provides for more stringent protective measures.

In addition to facilitating ratification of the Hong Kong Convention, the Regulation aims to prevent, reduce, minimise, and, to the extent practicable, eliminate accidents, injuries, and other adverse effects on human health and the environment caused by ship recycling. The purpose is also to enhance safety and the protection of human health and of the Union marine environment throughout a ship's life-cycle, in particular to ensure that hazardous waste from such ship recycling is subject to environmentally sound management. (Art 1.)

By directing ships flying the flag of a Member State to ship recycling facilities that practice safe and environmentally sound methods of dismantling ships instead

[75] Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships ('Hong Kong Convention') (Hong Kong, 15 May 2009) 1672 UNTS 126.

[76] On its entry into force see Art 17 of the Hong Kong Convention.

[77] [2013] OJ L 330/1. In 2014 the Member States were authorised to ratify or accede to the Convention (parts of which fall under the exclusive competence of the EU). Council Decision 2014/241/EU of 14 April 2014 concerning the ratification of, or the accession to, the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009, by the Member States in the interests of the European Union [2014] OJ L 128/45.

of directing them to substandard sites, as has long been the practice, the Regulation should increase the competitiveness of ship recycling facilities in the EU in addition to providing environmental and health benefits.[78]

With the exception of Article 12 on requirements for ships flying the flag of a third country, the Regulation applies to ships flying the flag of a Member State. Ships used only on government non-commercial service, ships of less than 500 gross tonnage, and ships operating throughout their life only in waters subject to the sovereignty or jurisdiction of the Member State whose flag the ship is flying are exempted. (Art 2.)

The Regulation prohibits or restricts the installation or use of certain listed hazardous materials on ships, as specified in Annex I, and requires all new ships to have on board an inventory of hazardous materials contained in the structure or equipment of the ship, including their location and approximate quantities.[79] Among the things that may not be installed at all are asbestos, PCB, and installations containing ozone-depleting substances. Existing ships shall comply with these requirements as far as practicable. As of 31 December 2020, ships flying the flag of a third country will also be required to have on board an inventory of hazardous materials when calling at a port or anchorage of a Member State. (Arts 4, 5, and 12, and Annex I.)

Each Member State must have a designated authority ('the administration') which carries out regular surveys of ships. The initial survey of a new ship shall be conducted before the ship is put in service, or before the inventory certificate is issued. For existing ships, an initial survey shall be conducted by 31 December 2020. The survey shall verify that Part I of the inventory of hazardous materials complies with the requirements of the Regulation. After successful completion of an initial or renewal survey, the administration or a recognised organisation authorised by it shall issue an inventory certificate for a period not exceeding five years. (Arts 8 and 9.)

A key provision is that ship owners must ensure that ships destined to be recycled are only recycled at ship recycling facilities that are included in the so-called European List of ship recycling facilities ('the European List') and must hold a ready-for-recycling certificate (Art 6).

In order to be included in the European List, a ship recycling facility must comply with a number of requirements, including being authorised by its competent authority to conduct ship recycling operations; being designed, constructed, and operated in a safe and environmentally sound manner; providing for worker safety and training; and preventing adverse effects on human health and the environment.

Ship recycling facilities located in the EU shall be authorised by their respective Member State competent authority, provided that they comply with these requirements and other relevant provisions of EU law. Any ship recycling company owning

[78] Preambular para 7.

[79] Somewhat simplified, a 'new ship' is one for which the building contract is placed on or after 10 December 2013 or which was delivered thirty months after the date of the application of the Regulation (Art 3).

a ship recycling facility located in a third country and intending to recycle ships flying the flag of a Member State must submit an application, accompanied by evidence that the facility concerned complies with the requirements of the Regulation, to the Commission. In order to be included in the European List, compliance with the requirements for ship recycling facilities must be certified following a site inspection by an independent verifier. By applying for inclusion in the European List, ship recycling companies accept the possibility of the facility concerned being subject to site inspections by the Commission or agents acting on its behalf. (Arts 13–15.)

Prior to a ship being taken out of service and before the recycling of the ship has started, a final survey shall be conducted by the administration. It shall verify that the inventory of hazardous materials and the ship recycling plan comply with the Regulation and that the ship recycling facility where the ship is to be recycled is included in the European List. After successful completion of a final survey, a ready-for-recycling certificate shall be issued. (Arts 8 and 9.)

When preparing to send a ship for recycling, the ship owners are required to provide the operator of the ship recycling facility with all ship-relevant information necessary for the development of a so-called ship recycling plan. They also must notify the relevant Member State authority of the intention to recycle the ship in a specified ship recycling facility or facilities. The owners shall be responsible for the ship and shall make arrangements to maintain the ship in compliance with the requirements of the administration of the Member State whose flag the ship is flying up until such time as the operator of the ship recycling facility accepts responsibility for the ship. (Arts 6 and 7.)

Member States must apply control provisions for ships in accordance with their national law having regard to Directive 2009/16/EC on port State control.[80] Under normal circumstances the inspection shall be limited to checking that either an inventory certificate or a ready-for-recycling certificate is kept on board. A ship may be warned, detained, dismissed, or excluded from the ports or offshore terminals under the jurisdiction of a Member State if it fails to submit a copy of a statement of compliance, issued after verification of the inventory of hazardous materials by the relevant authorities of the third country whose flag the ship is flying or an organisation authorised by them, together with the inventory of hazardous materials. (Art 11.)

Natural or legal persons affected or likely to be affected by a breach of the rules on ship recycling facilities located in a third country, or having a sufficient interest in environmental decision-making relating to such a breach, are entitled to request the Commission to take action. The interest of any non-governmental organisation promoting environmental protection and meeting the relevant requirements of Regulation (EC) No 1367/2006 on the application of the provisions of the Aarhus Convention shall be deemed sufficient.[81] (Art 23.)

[80] [2009] OJ L 131/57.

[81] Regulation (EC) No 1367/2006 of the European Parliament and of the Council on the application of the provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Community institutions and bodies [2006] OJ L 264/13.

When interpreting the requirements of the Regulation, consideration should be given to the guidelines developed by the IMO to support the Hong Kong Convention.[82]

Further Reading

A Gillespie *Waste Policy: International Regulation, Comparative and Contextual Perspectives* (Edward Elgar Publishing, 2015)

D Langlet *Prior Informed Consent and Hazardous Trade: Regulating Trade in Hazardous Goods at the Intersection of Sovereignty, Free Trade and Environmental Protection* (2nd edn, Kluwer Law International, 2009) Chap 5

N de Sadeleer 'Scrap Metal Intended for Metal Production: The Thin Line between Waste and Products' (2012) 9 *Journal for European Environmental & Planning Law* 136–63

E Scotford 'The New Waste Directive—Trying to Do It All … An Early Assessment' (2009) 11(2) *Environmental Law Review* 75–96

[82] Preambular para 12.

13

Chemicals

Facts and figures

In 2013 the EU-28 produced 30.7 million tonnes of the most toxic chemicals (carcinogenic, mutagenic, and reprotoxic chemicals).

(Eurostat: Energy, transport, and environment indicators 2015)

4575 export notifications of banned or severely restricted chemicals and those subject to prior informed consent were made in 2014.

As of September 2015 51920 registration dossiers had been submitted to ECHA with information on 13441 unique substances.

About 25 per cent of registrations were made by companies in Germany and 12 per cent by UK companies.

In mid-2015 there were 163 'substances of very high concern' on the so-called candidate list which means, inter alia, that consumers can request information about their presence in products.

(<http://echa.europa.eu>)

13.1 Introduction

The EU has a rather long tradition of regulating chemical substances. The first pieces of legislation in this field, adopted in the 1960s, were part of a programme for the elimination of technical barriers to trade. That was the case, inter alia, with Directive 67/548/EEC on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances.[1] Gradually, however, environmental and health considerations came to play a more prominent role in chemicals regulation. An important step was the adoption, in 1976, of Directive 76/769/EEC on restrictions on the marketing and use of certain dangerous substances and preparations.[2] It enabled the imposition of restrictions on the use of chemical substances and aimed to protect the public and also contribute to the protection of the environment.[3] The extent to which this

[1] [1967] OJ 196/1. [2] [1976] OJ L 262/201.

[3] Through the years a number of other legal acts banning or restricting the use of chemicals in specific products were also adopted. See, inter alia, Directive 75/716/EEC on the approximation of the

Directive was harmonising was for a long time a matter of contention.[4] However, in 2005 the Court of Justice made it clear that Member States were not allowed to subject the placing on the market of substances regulated by the Directive to conditions other than those laid down in the Directive.[5]

In 1979 Directive 67/548/EEC was amended so that protection of the environment became a primary aim and the placing on the market of chemical substances was made subject to a requirement to test new substances for dangerous properties.[6] A still relevant distinction between 'existing' and 'new' chemical substances was thereby introduced. In order to place new substances on the market in quantities above a certain threshold after 18 September 1981, that is, the day when the amendments came into force, the manufacturer or importer had to submit to the competent authority a notification including, inter alia, information necessary for evaluating the foreseeable risks which the substance may entail for humans and the environment, including the results of certain studies specified in the Directive. The larger the volume to be marketed, the more information had to be provided and the more tests were required to be carried out.

No corresponding requirement for notification or risk assessment was introduced for all the 'existing substances'. Those could continue to be placed on the market without testing as long as they had been included on a list of substances marketed between 1971 and 18 September 1981.[7] In addition to the obvious implications for the protection of the environment and human health, this also created an unintended incentive for industry actors to keep producing 'existing' chemical substances, rather than innovating and developing new and better ones, which would require costly tests.[8]

In the 1990s a programme was set up under which 141 'existing chemicals' were selected to undergo risk assessment and risk reduction measures.[9] The risk assessments were carried out by the Member States, coordinated by the Commission, and based on data provided by manufacturers and importers. However, the programme was costly and slow to yield results. It was concluded that a new approach, more in tune with the polluter-pays principle, was needed and the Commission was tasked with developing a mechanism for dealing with the lack of knowledge concerning

laws of the Member States relating to the sulphur content of certain liquid fuels [1975] OJ L 307/22; Directive 98/70/EC of the European Parliament and of the Council relating to the quality of petrol and diesel fuels … [1998] OJ L 350/58; and Directive 94/62/EC on packaging and packaging waste [1994] OJ L 365/10.

[4] L Krämer, 'Kemikalier och miljön: historien om den Europeiska gemenskapens kemikalielagstiftning' in E Ebbesson and D Langlet (eds) Koll på kemikalier?: rättsliga förändringar, möjligheter och begränsningar (Iustus, 2010) 43.

[5] Joined Cases C-281/03 and C-282/03 *Cindu Chemicals and Others* ECLI:EU:C:2005:549.

[6] [1979] OJ L 259/10.

[7] The European Inventory of Existing Commercial Substances (EINECS) originally listed all substances that were reported to be on the market between 1971 and 18 September 1981.

[8] J Scott 'REACH: Combining Harmonization and Dynamism in the Regulation of Chemicals' in J Scott (ed) *Environmental Protection: European Law and Governance* (Oxford University Press, 2009) 57.

[9] Regulation (EEC) No 793/93 on the evaluation and control of the risks of existing substances [1993] OJ L 84/1.

'existing chemicals' according to which manufacturers, importers, and so-called downstream users should evaluate the risks.[10] This led, after extensive consultations and heated debates, to the adoption, in 2007, of Regulation 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals, (REACH) and establishing a European Chemicals Agency (ECHA).[11]

13.2 REACH

REACH is a huge and partly technically complex piece of legislation consisting of 141 articles and seventeen annexes. Its legal basis is an article corresponding to the current Article 114 TFEU on the functioning of the internal market, but it has a much broader purpose than to harmonise legislation for the benefit of market actors. REACH aims to ensure a high level of protection of human health and the environment as well as the free circulation of substances on the internal market while enhancing competitiveness and innovation. The environmental objective includes the promotion of methods for assessment of hazards of substances that do not involve testing on animals. (Art 1.)

The Regulation lays down provisions on substances, defined as chemical elements and their compounds, obtained by a manufacturing process or in their natural state, and, since an amendment in 2008, mixtures, that is, mixtures or solutions composed of two or more substances. These provisions relate to manufacture, placing on the market, and use of substances and mixtures. To a limited extent, REACH also regulates substances in articles. An 'article', as opposed to a substance or a mixture, is an object which during production is given a special shape, surface, or design which determines its function to a greater degree than does its chemical composition (Arts 1 and 3). To understand that it may sometimes be difficult to draw the line between on the one hand a substance or mixture (in a container) and on the other an article, one needs only think of a crayon, a battery, or an ink cartridge.[12]

As the title indicates, REACH establishes a European Chemicals Agency (ECHA) for the purposes of managing and in some cases carrying out the technical, scientific, and administrative aspects of the Regulation (Art 75). ECHA is located in Helsinki, Finland.

REACH is based on the principle that it is for manufacturers, importers, and downstream users[13] to ensure that they manufacture, place on the market, or use

[10] Krämer 'Kemikalier och miljön (n 4) 49; H Foth and AW Hayes, 'Background of REACH in EU Regulations on Evaluation of Chemicals' 2008 (27) *Human & Experimental Toxicology* 443–61.

[11] [2006] OJ L 396/1.

[12] According to the (non-binding) Guidance on requirements for substances in articles, version 2 (European Chemicals Agency, April 2011), a printer cartridge is a combination of an article (functioning as a container) and a substance/mixture, a crayon is a mixture, and a battery is an article (with an integral substance/mixture).

[13] A 'downstream user' is any natural or legal person established within the EU, other than the manufacturer or the importer, who uses a substance, either on its own or in a mixture, in the course of his industrial or professional activities. Distributors and consumers are not downstream users. Art 3.

such substances that do not adversely affect human health or the environment. How this principle translates into substantive obligations will be discussed in the following sections. The Regulation also makes explicit that its provisions are underpinned by the precautionary principle.[14] (Art 1.)

Exempted from the Regulation's scope are, inter alia, radioactive substances regulated by Euratom, non-isolated intermediates,[15] and the carriage of dangerous substances by rail, road, inland waterway, sea, or air. Wastes, as defined in what is now Directive 2008/98/EC on waste, is not a substance, mixture, or article, as understood by REACH. But exposure assessments for chemical substances, which are further discussed in a subsequent section, must nonetheless include the waste stage of the substance's life cycle.

Certain other EU legislation in effect takes precedence over REACH, since that legislation is not to be prejudiced by the application of REACH. This is particularly significant since it applies with respect to all EU workplace and environmental legislation. (Art 2.) The consequences of this are discussed further presently.

13.2.1 Registration

The cornerstone of REACH is the so-called 'no data, no market' provision according to which substances (on their own, in mixtures, or in articles) may not be manufactured in the EU or placed on the market unless they have been registered, provided that no specific exemption applies (Art 5). It should be noted that registration is thus a requirement not only for the placing on the market but also for the manufacturing of chemical substances within the EU, even if the substances are manufactured solely for export. As will be shown, the exemptions are rather extensive, and with respect to substances in articles it is only under specific circumstances that an obligation to register applies.

Generally exempted from the registration requirement are substances, typically of natural origin, listed in Annex IV (among them glucose, lactose, nitrogen, and carbon dioxide), since they are considered to cause minimum risk due to their intrinsic properties, and those listed in Annex V (among them minerals, ores, natural gas, crude oil, and coal, provided that they are not chemically modified), as registration is deemed inappropriate or unnecessary for these substances (Art 2).

Of more importance is, however, the volume threshold according to which only those who manufacture or import a substance, either on its own or in mixtures, in quantities of one tonne or more per year need submit a registration to ECHA (Art 6). A substance can thus be manufactured and imported by any number of actors without being registered as long as none of them reaches the one tonne/year

[14] On the role of the precautionary principle in the implementation of REACH see C Klika 'Risk and the Precautionary Principle in the Implementation of REACH' (2015) 6 *European Journal of Risk Regulation* 111–20.

[15] Intermediates are substances that are manufactured for and consumed in or used for chemical processing in order to be transformed into another substance.

threshold. The total volume of an unregistered substance that is introduced on the market can in this way be well above one tonne/year.

Substances that have been notified in accordance with Directive 67/548/EEC, that is, so-called 'new substances', are to be regarded as registered under REACH (Art 24).

Active substances[16] manufactured or imported for use in plant protection products or biocidal products only and approved under relevant EU legislation on such products are also regarded as having been registered and need not be registered under REACH (Art 15).

Specific exemptions apply in certain cases to monomers that are used as so-called on-site isolated intermediates or transported isolated intermediates, and to polymers[17] (Art 6). When on-site isolated intermediates are to be registered they are subject to specific rules. Polymers, which include plastics, may become subject to registration and evaluation requirements in the future if it becomes possible to select those that need to be registered due to the risks posed to human health or the environment in a practicable and cost-efficient way.[18]

With respect to articles, producers or importers are normally only required to submit a registration for any substance contained in those articles if the substance is present in quantities totalling over one tonne per producer or importer per year and if the substance is intended to be released under normal or reasonably foreseeable conditions of use (Art 7). That an article contains a substance is thus not in itself sufficient to trigger an obligation to register the substance, irrespective of the volumes involved. It must also be *intended* to be released. The numerous substances that make up a laptop need, for example, not be registered, for that reason at least, since laptops are not intended to release their constituent chemicals.

Certain time-limited exemptions from the duty to register apply with respect to substances manufactured or imported for the purposes of product and process-orientated research and development (Art 9).

It is important to note that substances that are exempted from the obligation to register may still be subject to authorisation or restriction provisions under REACH.

The information to be included in the registration, and thus sent to ECHA, varies depending on the volumes of the substance that the individual registrant imports or places on the market. However, all registrants must submit a technical dossier containing information on, inter alia, the manufacture and use(s) of the substance, its classification and labelling, and guidance on how it may be used safely. The requirements are specified in Annex VI. (Art 10.)

All the physicochemical, toxicological, and ecotoxicological information that is relevant and available to the registrant must also be included in the technical

[16] Regarding active substances see further section 13.4.1.

[17] The concept of 'monomer substance', as used in REACH, has been subject to interpretation by the Court of Justice in Case C-558/07 *S P C M and Others* ECLI:EU:C:2009:430. 'Isolated intermediates' should be contrasted with 'non-isolated intermediates' which are intermediates that, during synthesis, are not intentionally removed from the equipment in which the synthesis takes place (Art 3).

[18] Preambular para 41.

dossier, regardless of volume. But depending on the volume, specific minimum requirements apply which may go beyond what is already available to the registrant. For substances manufactured or imported in quantities of one tonne or more per year per manufacturer/importer, the information specified in Annex VII must be provided. For volumes of 10 tonnes and above, the information required by Annex VIII is added. Registrations concerning substances manufactured or imported in quantities of 100 tonnes or more per year per manufacturer/importer must also contain testing proposals for the provision of the information specified in Annex IX. For volumes of 1,000 tonnes and above, further testing proposals in accordance with Annex X must also be provided.

The testing proposals included in registrations are examined by ECHA according to a certain order of priority. A decision is then made, in accordance with a certain procedure, on which of the tests are to be carried out, which conditions shall apply, and if any further tests will be required. (Arts 12 and 40.)

In order to increase the efficiency of the registration system, reduce costs, and reduce testing on vertebrate animals, a system for joint submission of data by multiple registrants applies. When more than one manufacturer and/or importer are required to register the same substance, certain information, including proposals for testing, is to be submitted by one registrant acting with the agreement of the other assenting registrants ('the lead registrant'). However, a registrant may submit this information separately, for example if it would be disproportionately costly for her to submit the information jointly, or if she disagrees with the lead registrant on the selection of information. (Art 11.)

When a registration reaches ECHA, the agency carries out a completeness check to ascertain that all the elements required have been provided and assigns a registration number to the substance concerned. The check does not include an assessment of the quality or the adequacy of any data or justifications submitted. Such a check is only required to be carried out on a minimum of 5 per cent of the dossiers received for each tonnage band. The quite limited extent to which ECHA tries to ensure that registrations are in compliance with the substantive requirements of REACH is obviously related to resources, but should also be understood against the fact that the primary aim of the registration procedure is not to provide the agency with comprehensive information. The main objective is to make manufacturers and importers generate data on the substances they manufacture or import, to use these data to assess the risks related to these substances, and to develop appropriate risk management measures which may be applied by themselves and in the supply chain.[19]

Unless the agency informs the registrant, within three weeks after the submission date, that her registration is incomplete, the registrant may start or continue (for so-called phase-in substances) to manufacture or import the substance or article in question. (Arts 20, 21, and 41.)

Registrants must under certain circumstances update the registration. That applies, inter alia, when changes in the quantities manufactured or imported result in a

[19] Preambular paras 19–21.

change of tonnage band, when there is new knowledge of the risks of the substance to human health and/or the environment which leads to changes in the safety data sheet or the chemical safety report, or if there is a change in the classification and labelling of the substance. (Art 22.)

To avoid overloading authorities and others, registration of so-called 'phase-in substances'—including the 'existing substances' listed in EINECS, and substances manufactured in the EU but not placed on the market before REACH came into effect—has been spread out over a number of years. For a potential registrant of a phase-in substance to benefit from the transitional regime, the registrant had to pre-register the substance with ECHA in 2008. (Art 28.)

The following phase-in substances needed to be registered no later than 1 December 2010: substances classified as carcinogenic, mutagenic, or toxic to reproduction and manufactured in the EU or imported, in quantities reaching one tonne or more per year per manufacturer/importer, at least once after 1 June 2007; substances classified as very toxic to aquatic organisms which may cause long-term adverse effects in the aquatic environment and manufactured or imported in quantities reaching 100 tonnes or more per year per manufacturer/importer, at least once after 1 June 2007; and other substances manufactured or imported, in quantities reaching 1,000 tonnes or more per year per manufacturer/importer, at least once after 1 June 2007.

For other substances manufactured or imported, in quantities reaching 100 tonnes or more per year per manufacturer/importer, at least once after 1 June 2007, the deadline for registration was 1 June 2013. The last group of phase-in substances, that is, those manufactured in the EU or imported in quantities reaching one tonne or more per year per manufacturer/importer at least once after 1 June 2007, but not falling within any of the above categories, are exempted from the registration requirement until 1 June 2018. Substances with known problematic properties and those manufactured or imported in large volumes were thus required to register before those without such known properties and handled in smaller volumes.

Title III of the Regulation lays down rules on data sharing and avoidance of unnecessary testing. The sharing of information on substances is intended to increase the efficiency of the registration system, reduce costs, and reduce the need for testing on vertebrate animals. For this purpose everyone who pre-registered a phase-in substance shall participate in a substance information exchange forum (SIEF). The sharing of information shall concern technical data and in particular information related to the intrinsic properties of substances. Testing on vertebrate animals shall be undertaken only as a last resort. (Arts 25 and 29.)

As of mid-2015, ECHA had received about 40,000 registrations of phase-in substances involving 7,250 unique substances. Since 1 June 2008 it had also received about 3,100 registrations of non phase-in substances, involving 1,400 unique substances.[20]

[20] Registration statistics <http://echa.europa.eu/regulations/reach/registration/registration-statistics> (visited 11 Sept 2015).

13.2.2 Chemical safety report

For all substances subject to registration in quantities of 10 tonnes or more per year per registrant, a chemical safety assessment must be performed and a chemical safety report completed. Specific rules apply to mixtures.

A chemical safety assessment of a substance shall include a human health hazard assessment; a physicochemical hazard assessment; an environmental hazard assessment; and a persistent, bioaccumulative, and toxic (PBT) and very persistent and very bioaccumulative (vPvB) assessment. If the substance is assessed to be a PBT or vPvB, or if it fulfils the criteria for certain hazard classes or categories, the chemical safety assessment shall also include exposure assessment, including the generation of exposure scenarios,[21] exposure estimation, and risk characterisation. The assessment is to address not only the manufacturers' or importers' own uses and the uses for which they place their substances on the market, but also uses which their customers ask them to address.

The chemical safety report must be kept available and up to date by the registrant.

An important general requirement is that all registrants must identify and apply the appropriate measures to adequately control the risks identified in the chemical safety assessment. (Art 14.)

Also, downstream users—that is, natural or legal persons established within the EU, other than the manufacturer or the importer, who use a substance, either on its own or in a mixture, in the course of their industrial or professional activities—are required, with certain exceptions, to prepare a chemical safety report for any use outside the conditions described in an exposure scenario or for any use the supplier advises against (Arts 3 and 37).

13.2.3 Information in the supply chain

Rules pertaining to information in the supply chain are a part of REACH that is of great practical relevance. Among the requirements is that suppliers of a substance or a mixture in many cases must provide the recipient with a so-called safety data sheet. This is the case, inter alia, where the substance meets the criteria for classification as hazardous or if it is a PBT or vPvB substance.

The safety data sheet, which is to be compiled in accordance with Annex II, shall contain, inter alia, hazards identification, information on handling and storage, toxicological and ecological information, disposal considerations, and regulatory information.

Any actor in the supply chain who is required to prepare a chemical safety report must place the relevant exposure scenarios in an annex to the safety data sheet. The safety data sheet shall be provided free of charge no later than the date on which

[21] An 'exposure scenario' is the set of conditions, including operational conditions and risk management measures, that describe how the substance is manufactured or used during its life-cycle and how the manufacturer or importer controls, or recommends downstream users to control, exposures of humans and the environment (Art 3).

the substance or mixture is first supplied. However, the sheet need not be supplied where hazardous substances or mixtures offered or sold to the general public are provided with sufficient information to enable users to take the necessary measures as regards the protection of human health, safety, and the environment, unless requested by a downstream user or distributor.[22]

In cases when a safety data sheet is not required, the supplier must provide the recipient with information on whether the substance is subject to authorisation and details of any authorisation granted or denied in this supply chain, details of any restrictions imposed under REACH, and any other available and relevant information about the substance that is necessary to enable appropriate risk management measures to be identified and applied. (Arts 31 and 32.)

There is also a general obligation incumbent on each actor in the supply chain to communicate information to the next actor or distributor up that chain. The obligation to communicate covers new information on hazardous properties, regardless of the uses concerned, and any other information that might call into question the appropriateness of the risk management measures identified in a safety data sheet supplied to that actor. Distributors must pass on such information to the next actor or distributor up the supply chain. In this way the information should also reach the manufacturers and importers who have the primary responsibility to assess the risks of their substances and communicate appropriate safety and management measures.

Every downstream user shall identify, apply, and, where suitable, recommend, appropriate measures to adequately control risks identified in the safety data sheet(s) supplied to her, in her own chemical safety assessment, or in any information on risk management measures supplied to her in accordance with the rules on communicating information down the supply chain for substances for which a safety data sheet is not required. (Art 37.)

13.2.4 Substance evaluation

The information generated through registration is, as mentioned previously, primarily intended to be used by manufacturers and importers to manage the risks related to their substances, but it may also be used to initiate the authorisation or restrictions procedures under REACH or other EU legislation.

In cooperation with the Member States, ECHA develops criteria for prioritising substances with a view to further evaluation after registration. Prioritisation shall be on a risk-based approach. The criteria shall consider, inter alia, structural similarity of the substance with known substances of concern, exposure information, and aggregated tonnage from the registrations submitted by several registrants. Based on these criteria, ECHA shall compile a draft rolling action plan specifying substances to be evaluated each year. Substances shall be included if there are grounds

[22] For a critique of the rules on what information must be provided to the general public see Scott, 'REACH: Combining Harmonization and Dynamism' (n 8) 86.

for considering that a given substance constitutes a risk to human health or the environment. ECHA adopts a final action plan on the basis of an opinion from the Member State Committee.

A Member State may choose one or more substances from the draft rolling action plan, with the aim of becoming a competent authority. As a competent authority it may carry out an evaluation of a substance itself or appoint another body to act on its behalf. If no Member State chooses a particular substance on the list it falls on ECHA to ensure that it is evaluated.

A Member State may notify ECHA at any time of a substance not on the rolling action plan, whenever it is in possession of information which suggests that the substance is a priority for evaluation.

Specific rules apply to the evaluation of intermediates (Art 49).

13.2.5 Authorisation and substitution

A novelty in REACH, compared to previous EU chemicals legislation, is that substances may be subjected to an authorisation requirement. The substances that can qualify for authorisation requirement are so-called 'substances of very high concern' (SVHCs). These are substances meeting the criteria for classification as carcinogenic, mutagenic, or toxic for reproduction (CMR); PBT or vPvB substances; and substances identified on a case-by-case basis for which there is scientific evidence of probable serious effects that cause an equivalent level of concern, as with CMR or PBT/vPvB substances. (Art 57.)

If a SVHC is listed in Annex XIV ('the Authorisation List') it becomes subject to authorisation. The adding of a substance to that list is a two-step procedure, the first step of which is its inclusion on the 'candidate list for eventual inclusion in Annex XIV' (the 'Candidate List'). The Commission may ask ECHA to prepare a dossier for substances which in its opinion meet the SVHC criteria. Any Member State may also prepare such a dossier and forward it to ECHA.[23] If ECHA does not receive or make any comments within a certain time after having made the dossier public, it shall include the substance on the Candidate List. When comments are made, a Member State Committee will need unanimous agreement on identification of the substances as a SVHC. If there is no agreement the matter is referred to the Commission and a decision is made in accordance with the so-called examination procedure.[24] It is hence individual Member States or the Commission that initiate the inclusion of a substance on the candidate list. (Arts 58 and 59.)

Even though it is a candidate list for eventual inclusion in Annex XIV, the inclusion on the list in itself has some significant implications. Producers and importers

[23] By 2015 Germany, France, the Netherlands, Austria, and Sweden had been most active in submitting such dossiers. D Romano and T Santos *A Roadmap to Revitalise REACH* (European Environmental Bureau, 2015) 11.

[24] See further Regulation (EU) No 182/2011 of the European Parliament and of the Council laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers [2011] OJ L55/13, Art 5.

of articles must notify ECHA if a substance included in the list is present in those articles in quantities totalling over one tonne per producer or importer per year and above a concentration of 0.1 per cent weight by weight. The Court of Justice has made clear that manufactured objects that meet the criteria for being classified as articles do not cease to be articles when assembled to form a complex product. It is only if an article becomes waste or ceases to have a shape, surface, or design which is more decisive in determining its function than its chemical composition that it stops being an article.[25] The concentration threshold thus applies to each individual article rather than to the total weight of any complex product, such as a car or a mobile phone, of which the article may have become a part. If exposure to humans or the environment during normal or reasonably foreseeable conditions of use including disposal can be excluded, it suffices to supply appropriate instructions to the recipient of the article. (Art 7.)

The supplier of an article containing a listed substance in a concentration above 0.1 per cent weight by weight must also provide any industrial or professional user, or distributor, of the article with sufficient information to allow for its safe use. The duty only covers information available to the supplier, and as a minimum the name of the substance. However, final consumers need only be provided with this information if they request it. (Art 33.) Substances remain on the candidate list, and these obligations continue to apply, even if they are eventually included in Annex XIV.

There are clear signs that inclusion of a substance on the candidate list acts as a strong driver of innovation and substitution.[26] The decision to include a substance has in some cases been challenged as being contrary to the principles of equal treatment and proportionality.[27]

The decision to include a substance in Annex XIV, and thereby make it subject to authorisation, is made in accordance with the examination procedure. ECHA is to recommend priority substances to be included. Priority shall normally be given to substances with PBT or vPvB properties, wide dispersive use, or high volumes. ECHA also invites all interested parties to submit comments on its recommendations. (Art 58.)

At the time of writing, Annex XIV contains thirty-one substances which are either already subject to authorisation or will become so no later than January 2019.

A substance that has become subject to authorisation may not be placed on the market for a use or used unless the use for which it is placed on the market or for which the actor uses the substance has been authorised. Any manufacturer, importer, or downstream user of a substance may apply to ECHA for an authorisation. Applications may be made for the applicant's own use(s) or for uses for which she intends to place the substance on the market. Based on opinions by ECHA's

[25] Case C-106/14 *FCD and FMB* ECLI:EU:C:2015:576, paras 53–54.
[26] Romano and Santos *A Roadmap to Revitalise REACH* (n 23) 10.
[27] See, eg, Case T-96/10 *Rütgers Germany and Others* ECLI:EU:T:2013:109.

Committees for Risk Assessment and Socio-economic Analysis and comments from the applicant, it is for the Commission to grant or refuse the authorisation in accordance with the examination procedure.

An important aim of the authorisation system, in addition to controlling the use of SVHC, is that such substances should be progressively replaced by suitable alternative substances or technologies where these are economically and technically viable. To that end, applications for authorisation shall include an analysis of the alternatives considering their risks and the technical and economic feasibility of substitution. Where the analysis shows that suitable alternatives are available, a substitution plan, including a timetable, shall be included.

An authorisation shall be granted if the risk to human health or the environment from the use of a substance arising from its intrinsic properties is adequately controlled. When granting the authorisation, the Commission shall take into account all discharges, emissions, and losses known at the time of the decision. However, this does not apply with respect to substances meeting the criteria for classification as CMR, PBT, or vPvB substances and substances identified on a case-by-case basis, for which there is scientific evidence of probable serious effects that cause an equivalent level of concern as with CMR or PBT/vPvB substances. For such substances, and for any other substances whose risk to human health or the environment is not deemed to be adequately controlled, an authorisation may only be granted if it is shown that socio-economic benefits outweigh the risk to human health or the environment arising from the use of the substance and if there are no suitable alternative substances or technologies. Such a decision requires consideration of the risk posed by the uses of the substance, the socio-economic benefits arising from its use, and the socio-economic implications of a refusal to authorise, as well as an analysis of the alternatives, and available information on the risks to human health or the environment of any alternative substances or technologies. When assessing whether suitable alternative substances or technologies are available the Commission shall take into account the technical and economic feasibility of alternatives for the applicant as well as whether the transfer to alternatives would result in reduced overall risks to human health and the environment.

Authorisations shall be subject to a time-limited review and shall normally be subject to conditions, including monitoring. The review period and any monitoring arrangement shall be specified in the authorisation. Notwithstanding any conditions of an authorisation, the holder is required to ensure that the exposure is reduced to as low a level as is technically and practically possible.

In cases where the substance is placed on the market, authorisation for a particular use may have been granted to the immediate downstream user rather than to the manufacturer, importer, or downstream user herself. A downstream user may use a substance provided that the use is in accordance with the conditions of an authorisation granted to an actor up her supply chain for that use. Exemptions apply to the use of substances in scientific research and development and to uses in plant protection products and biocidal products in accordance with relevant EU legislation. (Arts 56, 60, 62, and 64.)

13.2.6 Restrictions

The previous Directive 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations has been integrated in Title VIII of REACH. In accordance with the provisions in this Title, restrictions may be imposed on the manufacturing, placing on the market, and use of dangerous substances and preparations. Restrictions can take many forms, including total bans, concentration limits, and limitation to professional use.

Restrictions shall be decided, by amending Annex XVII, when there is an unacceptable risk to human health or the environment arising from the manufacture, use, or placing on the market of substances, which needs to be addressed on an EU-wide basis. Any such decision shall take into account the socio-economic impact of the restriction, including the availability of alternatives.

The procedure for restricting a substance may be initiated by a Member State or by the Commission and involves opinions by the Committee for Risk Assessment and the Committee for Socio-economic Analysis. As part of the process ECHA shall invite all interested parties to submit a socio-economic analysis, or information which can contribute to one of the suggested restrictions, examining the advantages and drawbacks of proposed restrictions.

With respect to substances that have been subjected to authorisation, ECHA shall consider whether the use of such a substance in articles poses a risk to human health or the environment that is not adequately controlled. If so, it shall initiate the procedure for making it subject to restrictions.

Final decisions on restrictions are made by the Commission in accordance with the examination procedure. If it does not take the opinions from the ECHA committees into account it must give a detailed explanation. (Arts 68–73.)

13.2.7 Harmonising effect

In addition to being based on a Treaty provision relating to the internal market, REACH also contains, in Article 128, a so-called internal market clause. According to that the Member States may not 'prohibit, restrict or impede the manufacturing, import, placing on the market or use of a substance'—on its own, in a mixture, or in an article—falling 'within the scope' of REACH, which complies with that Regulation and with any other EU acts adopted in implementation of REACH.

Except for the limited room for national exceptions allowed under what is now Article 114 TFEU, the Member States are prevented from applying any rules that differ from REACH within the scope of the Regulation. Exactly what should be deemed to fall within that scope is not always clear. With respect to substances that are subject to authorisation, there is hardly any room for national restrictions on use of a general nature. However, it must be assumed that use may be restricted in small areas due to specific circumstances since an authorisation on the EU level cannot possibly consider all local needs, such as water sources or the need to protect the breeding ground of a threatened, sensitive species. Any other interpretation would make impossible measures that are essential, inter alia, for protecting human

health unless they are explicitly provided for by EU workplace and environmental legislation (since such measures are given priority in relation to REACH). REACH should also not limit the right to impose restrictions on chemicals due to safety concerns, for example the fact that a chemical is highly explosive, since the prevention of accidents or terrorist attacks involving chemicals is not among the aims of REACH.[28]

With respect to substances that are subject to restrictions, the Court of Justice has made clear that REACH harmonises the requirements relating to the manufacture, placing on the market, or use.[29] However, the same argument for allowing site-specific restrictions applies here as with respect to substances that need authorisation.

For the large number of substances that have only been registered, there has typically not been any real evaluation of the risks by ECHA or the Member State authorities. What should not be permissible with respect to these substances is to make their marketing or use conditional on the provision of information additional to that required for the registration.[30] But it does not seem warranted to make them subject to equally far-reaching harmonisation as that which applies with respect to substances subject to authorisation or restrictions. Whether there is a need for EU-wide action to manage the risks associated with these substances has typically not been assessed.

Article 128 also has a second paragraph, according to which nothing in REACH shall prevent Member States from maintaining or laying down national rules to protect workers, human health, and the environment applying in cases where REACH 'does not harmonise the requirements on manufacture, placing on the market or use'. Literally interpreted, this seems to state the obvious: issues that are not harmonised by REACH are not harmonised by REACH. However, the second paragraph does serve to disprove the otherwise conceivable interpretation of the phrase 'falling within the scope of [REACH]' as implying a harmonising effect that goes beyond the actual provisions of the Regulation. It also signals more generally that the harmonising effect should not be extensively construed and that only those cases that are clearly covered by provisions in REACH are to be regarded as harmonised. In line with this, the Court of Justice has held that the EU legislature only intended to harmonise the requirements for the use of a substance 'in certain cases', such as when restrictions apply.[31] That does not seem compatible with making registration—which is required for almost all chemicals—entail full harmonisation.

[28] See, by analogy, Case C-288/08 *Nordiska Dental* ECLI:EU:C:2009:718, para 31.

[29] Case C-358/11 *Lapin luonnonsuojelupiiri* ECLI:EU:C:2013:142, para 38.

[30] At the time of writing a case is pending before the Court of Justice in which a Swedish court has asked the Court of Justice whether it is permissible to require an importer of a chemical product, in respect of which there is an obligation to notify under REACH, to notify it in accordance with national legislation for registration in a national product register. That requirement does not, however, require the production of new information. Case C-472/14 *Canadian Oil Company Sweden and Rantén* [2014] OJ C 448/15.

[31] Case C-358/11 *Lapin luonnonsuojelupiiri* (n 29) para 33.

In this context it should be recalled that REACH, according to Article 2, applies without prejudice to EU workplace and environmental legislation. Measures taken in accordance with EU environment legislation therefore do not violate REACH even if they restrict the handling of chemicals in ways that are prima facie incompatible with the Regulation. However, this cannot extend to such more stringent protective measures as the Member States may take in accordance with Article 193 TFEU.[32]

13.2.8 Further provisions

The Member States are required to maintain a system of official controls and other activities as appropriate to the circumstances. They shall also lay down provisions on penalties applicable for infringement of the provisions of REACH and take all measures necessary to ensure that they are implemented (Arts 125 and 126).

REACH also contains provisions on, inter alia, fees and charges (Title IX), the structure of and tasks to be performed by ECHA (Title X), competent authorities (Title XIII), and reporting and access to information (Title XII).

13.3 Classification, Labelling, and Packaging

As was seen in the previous section, the classification of chemical substances tends to have very significant implications for how they are regulated. And that labelling can be an important instrument for enabling safe handling of chemicals is obvious. What is now the EU has had rules on classification, labelling, and packaging of chemical substances since the 1960s. The core piece of legislation has been Directive 67/548/EEC relating to the classification, packaging and labelling of dangerous substances, in more recent years supplemented by Directive 1999/45/EC concerning classification, packaging and labelling of dangerous preparations.[33] However, as of 31 May 2015 these have both been replaced by Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures ('the CLP Regulation').[34] This has been made primarily to adapt EU rules to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS), developed within the United Nations to facilitate international trade while protecting human health and the environment.

The CLP Regulation has replaced Title XI of REACH on classification and labelling inventorying and effected changes to other parts of REACH as well. The CLP

[32] The Court of Justice has made clear that the EU principle of proportionality is not applicable with respect to more stringent protective measures of domestic law adopted by virtue of Art 193 TFEU and going beyond the minimum requirements laid down by a secondary EU law. Case C-6/03, *Deponiezweckverband Eiterköpfe* ECLI:EU:C:2005:222, paras 61–63. Since they are not subject to core principles of EU law, such national measures can hardly be part of EU environment legislation.

[33] [1999] OJ L 200/1. [34] [2008] OJ L 353/1.

Regulation is even more extensive than REACH and occupies, including annexes, more than 2,000 pages. It is also in large parts quite detailed and technical.

The purpose of the CLP Regulation, which is based on an article corresponding to the current Article 114 TFEU, is to ensure a high level of protection of human health and the environment as well as the free movement of substances, mixtures, and articles. This is done primarily by harmonising the criteria for classification of substances and mixtures as well as the rules on labelling and packaging for hazardous substances and mixtures. Manufacturers, importers, and downstream users are required to classify substances and mixtures placed on the market in accordance with Title II of the Regulation.[35] Where a substance or mixture is classified as hazardous, suppliers must ensure that it is labelled and packaged in accordance with Titles III and IV, before placing it on the market. Also substances not placed on the market must be classified if they are subject to registration or notification under REACH. Substances subject to harmonised classification and labelling, through an entry in Part 3 of Annex VI, shall be classified in accordance with that entry.

The Regulation also establishes a list of substances with their harmonised classifications and labelling elements at EU level (Part 3 of Annex VI) and a classification and labelling inventory of substances. Substances and mixtures that do not comply with the CLP Regulation may not be placed on the market.

Exempted from the scope of the CLP Regulation are, inter alia, radioactive substances within the scope of certain Euratom rules and substances and mixtures for scientific research and development that are not placed on the market, provided they are used under controlled conditions in accordance with EU workplace and environmental legislation. (Arts 1, 3, and 4.)

A substance or mixture classified as hazardous and contained in packaging must be labelled in accordance with the provisions in Title III. Requirements on packaging containing hazardous substances or mixtures are laid down in Title IV. Title V is dedicated to harmonisation of classification and labelling of substances and the classification and labelling inventory.

13.4 Pesticides

In the late 1970s what was then the EEC adopted a number of legal acts relating to pesticides, among them a directive on maximum levels for pesticide residues in and on fruit and vegetables[36] and one prohibiting the placing on the market and use of plant protection products containing certain active substances.[37] Pesticides also

[35] On classification see further N Herbatschek, L Bergkamp, and M Mihova 'The REACH Programmes and Procedures' in L Bergkamp (ed) *The European Union REACH Regulation for Chemicals: Law and Practice* (Oxford University Press, 2013) 105–7.

[36] Council Directive 76/895/EEC relating to the fixing of maximum levels for pesticide residues in and on fruit and vegetables [1976] OJ L 340/26.

[37] Council Directive 79/117/EEC prohibiting the placing on the market and use of plant protection products containing certain active substances [1979] OJ L 33/36.

became covered by rules on the classification, packaging, and labelling of dangerous preparations.[38] However, pesticides that were already on the market could continue to be sold unless the authorities had documented a concrete risk.[39] It was only in 1991, through the adoption of 91/414/EEC concerning the placing of plant protection products on the market,[40] that the EU got a comprehensive regulatory framework for a large group of pesticides. The Directive introduced a general, harmonised authorisation requirement for so-called plant protection products. For other pesticides a similar harmonising framework was established in 1998 through Directive 98/8/EC concerning the placing of biocidal products on the market.[41] In 2009 the Directive on plant protection products was replaced by a regulation and in 2013 the Directive on biocidal products was replaced by another regulation, both discussed presently. These regulations are both based on the principle that a pesticide's active substance(s) must be authorised at EU level while the authorisation of the pesticide itself is left to the individual Member States. However, a principle of mutual recognition applies once a pesticide has been authorised in one Member State.

13.4.1 Plant protection products

Regulation (EC) No 1107/2009 concerning the placing of plant protection products (PPPs) on the market was adopted in 2009.[42] It repeals Directive 91/414/EEC as well as the Directive from 1979 prohibiting the placing on the market and use of PPPs containing certain active substances. The reason for choosing a regulation rather than a directive was to simplify application of the new act and to ensure consistency throughout the Member States.

The Regulation is based on three articles, namely those corresponding to the current Article 43 TFEU on agriculture, Article 114 TFEU on the internal market, and Article 168 TFEU on public health. It is not indicated what parts of the Directive are based on which Treaty articles.

The Regulation aims to ensure a high level of protection of both human and animal health and the environment and to improve the functioning of the internal market through the harmonisation of the rules on the placing on the market of PPPs, while improving agricultural production.

[38] Council Directive 78/631/EEC on the approximation of the laws of the Member States relating to the classification, packaging and labelling of dangerous preparations (pesticides) [1978] OJ L 206/13.

[39] P Pagh 'EU:s reglering av bekämpningsmedel: växtskyddsmedel och biocidprodukter' in J Ebbesson and D Langlet (eds) *Koll på kemikalier?: Rättsliga förändringar, möjligheter och begränsningar* (Iustus förlag, 2010) 123–54, 126.

[40] Council Directive 91/414/EEC concerning the placing of plant protection products on the market [1991] OJ L 230/1.

[41] Directive 98/8/EC of the European Parliament and of the Council concerning the placing of biocidal products on the market [1998] OJ L 123/1.

[42] Regulation (EC) No 1107/2009 of the European Parliament and of the Council concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC [2009] OJ L 309/1.

It does so by laying down rules for the authorisation of PPPs, and their constituents, in commercial form and for their placing on the market, use, and control within the EU. The provisions of the Regulation are underpinned by the precautionary principle. It shall not prevent Member States from applying that principle where there is scientific uncertainty as to the risks with regard to human or animal health or the environment posed by the PPPs to be authorised in their territory (Art 1). The measures provided for in the Regulation should apply without prejudice to other EU legislation, including the Water Framework Directive (Directive 2000/60/EC).[43]

PPPs usually contain more than one component. The part of the product that is intended to give it effect as a pesticide is called 'active substance'.[44] The Regulation applies to products—in the form in which they are supplied to the user—consisting of or containing active substances, safeners,[45] or synergists,[46] and intended for any one of a number of listed uses. Among these are protecting plants or plant products against all harmful organisms or preventing the action of such organisms; influencing the life processes of plants; and destroying undesired plants or parts of plants. It is thus the *intended use* of a product, not its properties, that determines whether it is a PPP. The Regulation also applies to so-called co-formulants[47] and adjuvants.[48] (Art 2.)

As under the previous Directive, active substances are to be authorised by means of a common procedure (Chapter II), whereas PPPs are authorised by the individual Member States (Chapter III).

13.4.1.1 Authorisation of active substances

An active substance shall be approved in accordance with the detailed provisions in Annex II if it may be expected, in the light of current scientific and technical knowledge, that PPPs containing that substance meet a number of requirements. When applied in accordance with good plant protection practice and having regard to realistic conditions of use, the PPP shall have no immediate or delayed harmful effect on human health or animal health, directly or through drinking water, food, feed, or air; it may not have any unacceptable effects on plants or plant products or on the environment considering, inter alia, its impact on non-target species, on biodiversity and the ecosystem. It must also be sufficiently effective and not cause

[43] Preambular para 47.

[44] More specifically, active substances are substances, including micro-organisms, having general or specific action against harmful organisms or on plants, parts of plants, or plant products. Art 2.

[45] 'Safeners' are substances or preparations which are added to a plant protection product to eliminate or reduce phytotoxic effects of the plant protection product on certain plants. Art 2.

[46] 'Synergists' are substances or preparations which, while showing no or only weak activity as a PPP, can give enhanced activity to the active substance(s) in a PPP. Art 2.

[47] 'Co-formulants' are substances or preparations which are used or intended to be used in a plant protection product or adjuvant, but are neither active substances nor safeners or synergists. Art 2.

[48] 'Adjuvants' are substances or preparations which consist of co-formulants or preparations containing one or more co-formulants, in the form in which they are supplied to the user and placed on the market to be mixed by the user with a plant protection product and which enhance its effectiveness or other pesticidal properties. Art 2.

unnecessary suffering and pain to any vertebrates to be controlled. Furthermore, the residues, when the PPP is applied in accordance with good plant protection practice and having regard to realistic conditions of use, may not have any harmful effects on human health, including that of vulnerable groups such as pregnant women, infants and children, and workers subject to high pesticide exposure over the long term, or any unacceptable effect on the environment. Known cumulative and synergistic effects shall be taken into account where there are approved scientific methods available to assess such effects. These requirements shall be evaluated in the light of uniform principles. (Art 4.)

An active substance, safener, or synergist may not be approved if it is considered to be a persistent organic pollutant or a persistent, bioaccumulative, and toxic (PBT) substance. Approval may be subject to conditions and restrictions, including those relating to the manner and conditions of application; designation of areas where the use of PPPs containing the active substance may not be authorised; and the need to impose risk mitigation measures and monitoring after use. (Arts 4 and 6.)

It normally takes about three years from application to approval of a new active substance.

Safeners or synergists are subject to the same authorisation requirements as active substances (Art 25). Co-formulants do not require authorisation, but they can be subject to a general ban on use in PPPs and are then listed in Annex III (Art 2).

Low-risk active substances and basic substances used in PPPs are subject to less strict requirements. A basic substance is an active substance which is not predominantly used for plant protection purposes but nevertheless is useful in plant protection, but is not placed on the market as a PPP. It must not be a substance of concern nor have an inherent capacity to cause endocrine-disrupting, neurotoxic, or immunotoxic effects. There are also specific rules for approving any PPPs which contain any low-risk active substances. (Arts 22, 23, and 47.)

A work programme was to be adopted in 2014 in order to review the synergists and safeners that were already on the market when the Regulation came into force so as to phase these into the new system (Arts 26 and 81). However, at the time of writing such a programme had still to be adopted.

An application for the approval of an active substance, or for an amendment to the conditions of an approval, shall be submitted by the producer to a Member State ('the rapporteur Member State'), together with information demonstrating that the active substance fulfils the approval criteria, including summaries and results of tests and studies.

The rapporteur Member State is to make an independent, objective, and transparent assessment in the light of current scientific and technical knowledge. It shall normally within twelve months prepare and submit to the Commission and the European Food Safety Authority a report ('draft assessment report') assessing whether the active substance can be expected to meet the approval criteria. The draft assessment report is circulated to the other Member States for comments and made available to the public. The Authority then adopts a conclusion in the light of current scientific and technical knowledge on whether the active substance can be expected to meet the approval criteria. It is for the Commission to present a

so-called review report and a draft Regulation to the Standing Committee on the Food Chain and Animal Health, taking into account the report by the rapporteur Member State and the conclusion of the Authority.

A Regulation shall be adopted in accordance with the examination procedure, approving or not approving the active substance. Approved active substances are included in a specific Regulation containing a list of active substances.[49]

A first approval shall be for a period not exceeding ten years and a renewal shall be for a maximum of fifteen years. The Commission may review the approval of an active substance at any time. (Arts 5, 14, 21, and 22.)

13.4.1.2 Authorisation of PPPs

A PPP may not be placed on the market or used unless it has been authorised in the Member State concerned in accordance with the Regulation. Exemptions apply, inter alia, with respect to products containing exclusively one or more basic substances, PPPs intended for research or development, and when a parallel trade permit has been granted.

A PPP may only be authorised in a Member State if its active substances, safeners, and synergists have been approved and its co-formulants are not among those listed in Annex III as not accepted for inclusion in PPPs. The PPP's technical formulation must be such that user exposure or other risks are limited as much as possible without compromising the functioning of the product. The PPP must also be sufficiently effective and meet the requirements regarding effects on humans and the environment that PPPs containing a specific active substance must meet if that substance is to be authorised according to Article 4(3). (Arts 28 and 29.)

An authorisation must define plants or plant products and non-agricultural areas on which and the purposes for which the PPP may be used. It must also set out requirements relating to the placing on the market and use of the PPP. Member States may review an authorisation at any time where there are indications that a requirement for authorisation is no longer satisfied. (Arts 31 and 44.)

The Commission has adopted uniform principles for evaluation and authorisation of PPPs.[50]

13.4.1.3 Mutual recognition and candidates of substitution

The Regulation establishes a new system for mutual recognition of PPPs based on a division of the Member States into three zones—north, centre, and south[51]—in

[49] See Commission Implementing Regulation (EU) No 540/2011 implementing Regulation (EC) No 1107/2009 of the European Parliament and of the Council as regards the list of approved active substances [2011] OJ L 153/1.

[50] Commission Regulation (EU) No 546/2011 implementing Regulation (EC) No 1107/2009 of the European Parliament and of the Council as regards uniform principles for evaluation and authorisation of plant protection products [2011] OJ L 155/127.

[51] The Member States belonging to each zone are listed in Annex I.

which relevant conditions are generally comparable. A PPP approved by one Member State shall normally be approved on the same conditions by another Member State in the same zone. However, specific environmental or agricultural circumstances can allow a Member State to amend an authorisation issued by another Member State, or refuse to authorise the PPP in its territory. The same applies where the level of protection of both human and animal health and the environment required by the Regulation cannot be achieved. An exemption from the general rule on mutual recognition can also be made, inter alia, when a PPP contains a so-called candidate of substitution. (Arts 40 and 41.)

A candidate of substitution is an active substance which meets any of the criteria laid down in point 4 of Annex II. These include meeting two of the criteria to be considered as a PBT or being classified as a carcinogen or toxic for reproduction in a certain category. Such substances may be approved or have a renewed approval for periods of no more than seven years. The Commission is required to establish a list of substances identified as candidates for substitution (CfS). At the time of writing, however, there was only a draft list containing seventy-seven CfS. Substances approved under the Regulation that meet the CfS criteria are to be listed in a separate Annex of Regulation 540/2011 (ie the list of approved active substances).

A Member State evaluating an application for authorisation for a PPP containing an active substance approved as a CfS must perform a so-called comparative assessment. Where the comparative assessment weighing up the risks and benefits demonstrates that, for the uses specified in the application, an authorised PPP, or a non-chemical control or prevention method, already exists which is significantly safer for human or animal health or the environment, the PPP shall either not be authorised or its use shall be restricted. However, this only applies if the substitution by plant protection products or non-chemical control or prevention methods does not present significant economic or practical disadvantages. The chemical diversity of the active substances or methods and practices of crop management and pest prevention must also be adequate to minimise the occurrence of resistance in the target organism. The result of the comparative assessment can differ from Member States and between uses. (Art 50.)

It is thus far from any automatic restriction of the use of PPPs containing a candidate for substitution.

In exceptional cases a Member State may also subject a PPP not containing a candidate for substitution to a comparative assessment and restrict its use accordingly if a non-chemical control or prevention method exists for the same use and it is in general use in that Member State (Art 50).

A PPP that is authorised in one Member State may be placed on the market or used in another Member State if the latter determines that the PPP is identical in composition to another PPP already authorised in its territory (a so-called 'reference product'). The procedure for obtaining the required parallel trade permit is simpler than the approval procedure. (Art 52.)

The Regulation allows, under certain circumstances, for emergency measures to be taken either at the EU level or by individual Member States (Arts 69–71).

13.4.2 Sustainable use of pesticides

At the same time as the Regulation on PPPs was adopted, Directive 2009/128/EC establishing a framework for Community action to achieve the sustainable use of pesticides was also adopted.[52] It currently only applies to pesticides that are PPPs, but an expansion of its scope to also include biocidal products is foreseen.[53] The Member States are required to adopt National Action Plans (NAPs) setting up quantitative objectives, targets, measures, and timetables to reduce risks and impacts of pesticide use on human health and the environment and to encourage the development and introduction of integrated pest management and of alternative approaches or techniques in order to reduce dependency on the use of pesticides. 'Integrated pest management' refers to the careful consideration of all available plant protection methods and subsequent integration of appropriate measures that discourage the development of populations of harmful organisms and keep the use of PPPs to levels that are economically and ecologically justified and reduce or minimise risks to human health and the environment. The NAPs shall also include indicators to monitor the use of PPPs containing active substances of particular concern. (Arts 3 and 4.)

Member States shall ensure that all professional users, distributors, and advisors have access to appropriate training. This shall include, inter alia, how to identify and control the hazards and risks associated with pesticides, integrated pest management techniques, organic farming principles, and biological pest control methods. Pesticide application equipment in professional use must be subject to inspections at regular intervals. (Arts 5 and 8.)

The use of pesticides is to be minimised or prohibited in certain specific areas, including areas used by the general public, such as public parks and gardens, school grounds and children's playgrounds, and areas protected under the Water Framework Directive and Natura 2000 sites (Art 12).

13.4.3 Maximum residue levels

Harmonised provisions relating to maximum levels of pesticide residues in or on food and feed of plant and animal origin are established by Regulation (EC) No 396/2005 on maximum residue levels of pesticides.[54] This is done in accordance with the general EU principles on food safety.[55]

The Regulation applies to the products covered by Annex I when they are to be used as food or feed in or on which pesticide residues may be present. There is also a procedure for defining active substances of plant protection products for which no maximum residue levels are required. The Regulation is based on Treaty provisions

[52] [2009] OJ L 309/71. For a critique of the way sustainability is understood and pursued by the Directive see O Hamlyn 'Sustainability and the Failure of Ambition in European Pesticides Regulation' (2015) 27 *Journal of Environmental Law* 405–29.

[53] Preambular para 2. [54] [2005] OJ L 70/1.

[55] These principles are set out in Regulation (EC) No 178/2002 of the European Parliament and of the Council laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety [2002] OJ L 31/1.

relating to the common agricultural policy and public health and is focused on health protection rather than broader environmental considerations.

13.4.4 Biocides

Biocidal products are used to control unwanted organisms that are harmful to human or animal health, or that cause damage to human activities. Important examples of biocides are insecticides (except those used for plant protection purposes), disinfectants and preservatives for materials such as wood and fibres, and anti-fouling paints for ships. As mentioned previously, biocides were regulated in a directive from 1998 but are since 2012 subject to the requirements of Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.[56]

In more specific terms a biocidal product is primarily any substance or mixture consisting of, containing, or generating one or more active substances, with the intention of destroying, deterring, rendering harmless, preventing the action of, or otherwise exerting a controlling effect on any harmful organism by any means other than mere physical or mechanical action. A list of the types of biocidal products covered by the Regulation and their descriptions is set out in Annex V. Unless otherwise stated, the Regulation does not apply to biocidal products or treated articles that are within the scope of a number of other EU legal acts, including Regulation 1107/2009 on plant protection products. In that sense the rules on biocides are subsidiary to those on PPPs. (Arts 1–3.)

The procedure for approval is similar to that for PPPs in the sense that active substances must be approved and listed through a common EU procedure whereas biocidal products are approved by individual Member States. A procedure for mutual recognition may then be used for getting access to the markets of other Member States. However, the Biocides Regulation also provides for a centralised authorisation procedure resulting in an authorisation which allows the applicant to place a biocidal product directly on the entire EU market (Art 17). Union authorisation can be granted for most biocidal products with similar conditions of use across the Union.

Active substances potentially meeting substitution criteria must undergo a public consultation and may be designated as candidates for substitution during the approval procedure. During the evaluation for authorisation of a biocidal product containing active substances considered as candidates for substitution, a comparative assessment must be performed. (Arts 10 and 23.)

13.5 Export and Import of Dangerous Chemicals

Since the late 1970s the provision of sufficient information on exported chemicals to importing countries in order to enable them to efficiently protect human health and the environment has been subject to international debate. Initially such

[56] [2012] OJ L 167/1.

export was governed by non-binding instruments, but since 1998 the export of certain hazardous chemicals has been regulated by the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade.[57] The Convention establishes a system for making hazardous chemicals subject to a requirement for prior informed consent (PIC). Only chemicals listed in an Annex to the Convention are subject to the PIC requirement. Eligible for listing are chemicals that meet certain criteria, including having been banned or severely restricted in order to protect human health or the environment by at least two Parties to the Convention located in different regions of the world. There must also be a consensus at the Conference of the Parties in favour of listing the chemical. For severely hazardous pesticide formulations, the inclusion requirements are somewhat different. Once a chemical has been listed the Parties shall inform the Convention secretariat whether they consent to future import, do not consent, or consent only subject to specified conditions. It is not allowed for a Party to export a listed chemical to another Party that has indicated that it does not consent to import. A chemical that is banned or severely restricted domestically by a Party of export but not included in the PIC procedure is instead subject to a requirement to send an export notification to the importing Party before the first export in any calendar year.[58]

The EU adopted its first Regulation pertaining to export of chemicals in 1988.[59] Shortly after the EU ratified the Rotterdam Convention the 1988 regulation was replaced by Regulation 304/2003, drafted to implement the Convention in EU law. In 2006, however, this Regulation was annulled by the Court of Justice on the ground that it had been based on the wrong article in the then EC Treaty.[60] This necessitated the adoption of a new act, which became Regulation 689/2008 concerning the export and import of dangerous chemicals.[61] This, in turn, was recast in 2012 as Regulation (EU) No 649/2012.[62] It is based on both Article 192(1) TFEU, that is, environment, and Article 207 TFEU, that is, the common commercial policy, without indicating that some articles are based on one legal base and others on the other.

The Regulation has three objectives: to implement the Rotterdam Convention; to promote shared responsibility and cooperative efforts in the international movement of hazardous chemicals in order to protect human health and the environment from potential harm; and to contribute to the environmentally sound use of hazardous chemicals. It shall also ensure that the EU rules on classification,

[57] Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam, 10 September 1998) 2244 UNTS 337.

[58] For a detailed discussion on the drafting and operation of the Rotterdam Convention see D Langlet *Prior Informed Consent and Hazardous Trade: Regulating Trade in Hazardous Goods at the Intersection of Sovereignty, Free Trade and Environmental Protection* (2nd edn, Kluwer Law International, 2009) Chap 6.

[59] Council Regulation (EEC) No 1734/88 concerning export from and import into the Community of certain dangerous chemicals [1988] OJ L 155/2.

[60] Case C-178/03 *Commission v Parliament and Council* ECLI:EU:C:2006:4.

[61] [2008] OJ L 204/1.

[62] [2012] OJ L 201/60.

labelling, and packaging (ie Regulation (EC) No 1272/2008) apply to all chemicals when they are exported.

The Regulation applies to the hazardous chemicals that are subject to the PIC procedure under the Convention and to hazardous chemicals that are banned or severely restricted within the Union or a Member State. It further applies to exported chemicals in general in so far as their classification, labelling, and packaging are concerned. Several categories of substances, including radioactive materials and food and food additives, are exempted to the extent that they are covered by other EU legislation. (Arts 1 and 2.)

Chemicals subject to export notification, those qualifying for PIC notification, and those subject to the PIC procedure are all listed in different parts of Annex I.

Those listed in Part 1 are subject to the export notification procedure. These are chemicals banned or severely restricted in the EU within one or more use categories or subcategories,[63] and chemicals subject to the PIC procedure. Before such a chemical may be exported, the exporter must notify its competent national authority, which, after having checked the completeness of the notification, forwards it to the European Chemicals Agency (ECHA), which in turn transmits the notification to the appropriate authority of the country of import. ECHA shall take the measures necessary to ensure that the notification is received no later than fifteen days before the first intended export of the chemical in any calendar year. Under certain circumstances the obligation to make an export notification can cease or be waived by the importing country.

Mixtures containing a listed substance in a concentration that triggers labelling obligations under Regulation (EC) No 1272/2008 are also subject to notification. Even some articles require an export notification. This is the case with articles that either contain substances listed in Part 2 or 3 of Annex I in unreacted form, or mixtures containing such substances in a concentration that triggers labelling obligations under Regulation (EC) No 1272/2008.

As for import to the EU, ECHA is to receive export notifications from other Parties to the Convention and shall send a copy to the Member State receiving that import. (Arts 7, 8, 9, and 15.)

The chemicals listed in Part 2 of Annex I are subject to the export notification procedure but also qualify for the PIC notification procedure, that is, they shall be notified by the Commission to the Convention Secretariat for possible listing as PIC chemicals. They are also covered by a PIC requirement under EU law even though the Convention does not provide for that. (Arts 7 and 11.)

The chemicals listed in Part 3 of Annex I are subject to the PIC procedure as provided for by the Convention. The operation of this procedure is more complex than that of the export notification. The core obligation is, however, that substances listed in Part 2 or 3 of Annex I or mixtures containing such substances in a concentration that triggers labelling obligations may not be exported unless either of

[63] The categories are pesticides and industrial chemicals. Pesticides are in turn divided into two subcategories: plant protection products and other chemicals. See further Arts 3 (1) and (5).

two conditions is fulfilled. Either explicit consent to import has been sought and received by the exporter through the designated national authority of the exporter's Member State from the appropriate authority in the importing State; or, in the case of chemicals subject to a PIC obligation under the Convention (ie those listed in Part 3 of Annex I) the importing Party has given consent to import as indicated in the latest circular issued by the Convention Secretariat. If, after all reasonable efforts have been made, no response to a request for explicit consent has been received within sixty days, a chemical may nevertheless be allowed, on a case-by-case basis, to be exported if certain conditions are met. With respect to chemicals listed in Part 3, additional conditions apply. With respect to the PIC procedure, the Commission acts as a common designated authority on behalf of the national authorities of the Member States. (Arts 5 and 14.)

An important difference between the Regulation and the Convention is that under EU law both the export notification requirement and the PIC procedure apply with respect to all countries, not only Parties to the Convention.

The list of chemicals in Annex I shall be reviewed by the Commission at least every year, on the basis of developments in Union law and under the Convention (Art 23).

Unlike the Convention, the Regulation also includes a general ban on export. The ban covers a number of persistent organic pollutants, including DDT and PCB. These are all substances that are regulated by the Stockholm Convention on Persistent Organic Pollutants.[64] With some exceptions, the Regulation also prohibits export of metallic mercury, mixtures of metallic mercury with other substances, mercury compounds, and cosmetic soaps containing mercury. (Art 15 and Annex V.)

13.6 Hazardous Substances in Electrical and Electronic Equipment (RoHS)

A Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) was first adopted in 1995.[65] In 2011 a number of substantial changes were made, including an expansion of the Directive's scope to cover more electrical appliances. It was also recast as Directive 2011/65/EU.[66]

The Directive, based on Article 114 TFEU and generally referred to as the 'RoHS Directive', aims to contribute to the protection of human health and the environment, including the environmentally sound recovery and disposal of waste EEE. To that end, it lays down rules on the restriction of the use of hazardous substances in EEE falling within the categories set out in Annex I. The Annex includes the

[64] Convention on Persistent Organic Pollutants (Stockholm Convention) (Stockholm, 22 May 2001) (2006) 40214 UNTS 119.

[65] [2003] OJ L 37/19. [66] [2011] OJ L 174/88.

catch-all category 'other EEE'. Exempted from the Directive's scope are, inter alia, large-scale stationary industrial tools, large-scale fixed installations, most means of transport for persons or goods, and equipment specifically designed solely for the purposes of research and development. (Arts 1 and 2.)

'EEE' is defined as equipment which is dependent on electric currents or electromagnetic fields in order to work properly and equipment for the generation, transfer, and measurement of such currents and fields and designed for use with a voltage rating not exceeding 1,000 volts for alternating current and 1,500 volts for direct current. (Art 3.)

Member States shall ensure that EEE placed on the market, including cables and, with some exceptions, spare parts, does not contain the substances listed in Annex II. These include lead, mercury, cadmium, and polybrominated biphenyls. In July 2019 four phthalates will be added to the list.[67] Listed substances are tolerated in homogeneous materials as long as they do not exceed certain maximum concentrations.

Certain applications, listed in Annexes III and IV, are exempted from this prohibition. In the light of scientific and technical progress, the Commission may include or remove materials and components of EEE from these Annexes. (Arts 4 and 5.)

When placing EEE on the market, manufacturers shall ensure that it has been designed and manufactured in accordance with the relevant requirements. They shall also affix the CE marking on products that are in compliance with the applicable requirements.[68] Importers must be required to only place EEE that complies with the Directive on the Union market, while distributors must also ensure the rules are adhered to. (Arts 7, 9, and 10.)

The annexes, including the list of restricted substances and their tolerated concentration values, are to be regularly reviewed.

13.7 Metallic Mercury

Mention should also be made of Regulation (EC) No 1102/2008 on the banning of exports of metallic mercury and certain mercury compounds and mixtures and the safe storage of metallic mercury.[69] It prohibits the export from the EU of metallic mercury, cinnabar ore, mercury chloride, mercury oxide, and mixtures of metallic mercury with other substances, with a mercury concentration of at least 95 per cent weight by weight. In order to prevent the mercury thus prevented from

[67] Commission Delegated Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the list of restricted substances [2015] OJ L 137/10.

[68] The 'CE marking' is a marking by which the manufacturer indicates that the product is in conformity with the applicable requirements set out in Union harmonisation legislation providing for its affixing (Art 3).

[69] [2008] OJ L 304/75.

leaving the EU from re-entering the market, the Regulation also seeks to ensure the safe storage within the EU of this mercury. To this end, metallic mercury that is no longer used in the chlor-alkali industry, that has been gained from the cleaning of natural gas or from non-ferrous mining and smelting operations, or that has been extracted from cinnabar ore in the EU is to be considered as waste and be disposed of in accordance with EU waste legislation in a way that is safe for human health and the environment. The Regulation is based on the EU's environmental competence except for Article 1 setting out the export prohibition, which is based on the treaty provision on the common commercial policy.

13.8 Persistent Organic Pollutants (POPs)

POPs are known for persisting in the environment, bioaccumulating in the food web, and posing a risk to human health and the environment. They are easily transported long distances and have, inter alia, been found in significant concentrations in Arctic ecosystems. On the international level POPs are regulated by the 1998 Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on Persistent Organic Pollutants,[70] which now focuses on twenty-three substances with the ultimate objective of eliminating any discharges, emissions and losses of POPs, and by the 2001 Stockholm Convention on Persistent Organic Pollutants, which prohibits or severely restricts the production and use of a number of intentionally produced POPs and also restricts export and import. It also provides for the safe handling of stockpiles.[71] The Protocol also obliges Parties to reduce their emissions of certain POPs below their 1990 levels. The EU is party to both instruments and implements them through Regulation No 850/2004 on persistent organic pollutants.[72]

The substance of the Regulation, which is based on an article corresponding to the current Article 192(1) TFEU, is closely linked to the two international instruments. Its objective is, somewhat simplified, to protect human health and the environment from POPs by prohibiting, phasing out as soon as possible, or restricting the production, placing on the market, and use of substances subject to the Convention or the Protocol, and by minimising or eliminating releases of such substances, and by establishing provisions regarding waste containing any of these substances. The precautionary principle shall be taken into account. (Art 1.)

The production, placing on the market, and use of the substances listed in Annex I, including PFOS, polychlorinated naphthalenes, and short-chain chlorinated paraffins, shall be prohibited, whereas any POPs listed in Annex II shall be restricted in accordance with that Annex. Exemptions apply with respect to substances used for laboratory-scale research or as a reference standard, substances occurring as an unintentional trace contaminant, and those occurring as a constituent of articles already in use before May 2004.

[70] (Aarhus, 24 June 1998) 2230 UNTS 79.
[71] (Stockholm, 22 May 2001) 2256 UNTS 119.
[72] [2004] OJ L 158/7.

Member States and the Commission are also required, under the relevant EU legislation, to take appropriate measures to control existing chemicals and pesticides and prevent the production, placing on the market, and use of new chemicals and pesticides which exhibit characteristics of POPs. (Arts 3 and 4.)

Member States must draw up and maintain release inventories for the substances listed in Annex III (including PCB and PAHs) into air, water, and land in accordance with their obligations under the Convention and the Protocol.

From the Convention follows an obligation to establish action plans. Those plans must be communicated to the Commission and the other Member States. They shall include measures to promote the development and, where appropriate, shall require the use of substitute or modified materials, products, and processes to prevent the formation and release of the substances listed in Annex III. The Convention further requires the drawing up of implementation plans. When doing so the Member States must give the public early and effective opportunities to participate in the process. The Commission shall also adopt a Community implementation plan. (Arts 6 and 8.)

Producers and holders of waste shall undertake all reasonable efforts to avoid, where feasible, contamination of this waste with substances listed in Annex IV.

Waste consisting of, containing, or contaminated by any such substance shall be disposed of or recovered, without undue delay and in accordance with Annex V, Part 1, in such a way as to ensure that the POPs content is destroyed or irreversibly transformed so that the remaining waste and releases do not exhibit the characteristics of POPs. Exemptions can be made, for example when the content of the listed substances in the waste is below certain concentration limits. Disposal or recovery operations that may lead to recovery, recycling, reclamation, or re-use of Annex IV substances are prohibited. (Art 7.)

The Regulation also provides for monitoring, information exchange, and technical and financial assistance to developing countries. There are also rather extensive reporting requirements. (Arts 9–12.)

Further Reading

L Bergkamp (ed) *The European Union REACH Regulation for Chemicals: Law and Practice* (Oxford University Press, 2013)

F Fleurke and H Somsen 'Precautionary Regulation of Chemical Risk: How REACH Confronts the Regulatory Challenges of Scale, Uncertainty, Complexity and Innovation' (2011) 48 *Common Market Law Review* 357–94

H Foth and AW Hayes 'Background of REACH in EU Regulations on Evaluation of Chemicals' (2008) 27 *Human & Experimental Toxicology* 443–61

C Klika 'Risk and the Precautionary Principle in the Implementation of REACH' (2015) 6 *European Journal of Risk Regulation* 111–20

J Scott 'REACH: Combining Harmonization and Dynamism in the Regulation of Chemicals' in J Scott (ed) *Environmental Protection: European Law and Governance* (OUP, 2009) 57

E Stokes and S Vaughan 'Great Expectations: Reviewing 50 Years of Chemicals Legislation in the EU' (2013) 25 *Journal of Environmental Law* 411–35

14

Genetically Modified Organisms

Facts and figures

In 2014 >181 million hectares were planted with genetically modified crops worldwide.

In the USA such crops were grown on 73 million hectares (mh). In the EU Spain grew it on 0.5 mh and the Czech Republic, Portugal, Romania, and Slovakia on <0.05 mh.

(ISAAA Brief 49-2014: Global Status of Commercialized Biotech/GM Crops)

In 2015 one GMO was authorised to be cultivated in the EU.

As of November 2015 19 EU Member States or parts thereof had demanded geographical restrictions of the scope of authorisations for GMOs.

(<http://ec.europa.eu/food/plant/gmo/index_en.htm>)

14.1 Introduction

The regulation of genetically modified organisms (GMOs) has counted among the most politically divisive issues of EU environmental policy for many years. Food containing GMOs, and the cultivation of GMOs, have proven to be highly controversial in many Member States.[1] Since 1990, only three GMOs have been authorised for cultivation in the Union, of which only one product (MON810 maize) remained authorised in 2015. Nine Member States also had introduced safeguard clauses preventing the placing on the market and use on their territory of that GMO.[2]

For a number of years a de facto moratorium applied with respect to the authorisation of GMOs. It essentially consisted of statements from a number of Member

[1] See eg Joined cases C-439/05 P and C-454/05 P *Land Oberösterreich v Commission and Austria v Commission* ECLI:EU:C:2007:510 and ECLI:EU:C:2006:442 and case C-165/08 *Commission v Poland* ECLI:EU:C:2009:473.

[2] Communication from the Commission—Reviewing the decision-making process on genetically modified organisms (GMOs) (22 April 2015) COM(2015) 176 final, 4.

States of their intention not to support the approval of any GMOs before the regulatory framework had been changed. This situation led, in 2006, to the EU being found in violation of its obligations under WTO law.[3] Four years later the Commission submitted a proposal to amend the legislation as regards the cultivation of GMOs, which eventually resulted in a significant return of competence to the Member States in 2015. The cultivation of GMOs, which is in fact non-existent in most of the Union, thus constitutes a prime example of an area that has recently undergone (partial) deharmonisation.

The main EU legal framework for GMOs is provided by two directives: Directive 2001/18/EC on the deliberate release into the environment of GMOs,[4] and Directive 2009/41/EC on the contained use of genetically modified micro-organisms.[5] Both are recasts of directives from 1990.[6] These are complemented by Regulation (EC) No 1946/2003 on transboundary movements of GMOs,[7] Regulation (EC) No 1829/2003 on genetically modified food and feed,[8] and Regulation (EC) No 1830/2003 concerning the traceability and labelling of GMOs and the traceability of food and feed products produced from GMOs.[9]

On the international level GMOs are regulated primarily through the Cartagena Protocol on Biosafety to the Convention on Biological Diversity to which the EU is a Party.[10] It predominantly deals with international shipments of GMOs rather than their cultivation or use.

The focus here is on the main legal framework for the deliberate release into the environment of GMOs, which also includes the placing on the market of such organisms, and to a lesser extent on contained use and export of GMOs. The specific rules that pertain to genetically modified food and feed and labelling requirements are only addressed briefly.

14.2 Deliberate Release into the Environment

Despite its name, Directive 2001/18/EC on the deliberate release into the environment of GMOs is really concerned with two partly distinct activities: the introduction of GMOs into the environment and their placing on the market. However, as noted in the preamble, living organisms, whether released into the environment in

[3] EC—Measures Affecting the Approval and Marketing of Biotech Products, Report of the Panel (29 September 2006) WT/DS291/R, WT/DS292/R, WT/DS293/R ('EC—Biotech Products').

[4] [2001] OJ L 106/1. [5] [2009] OJ L 125/75.

[6] Council Directive 90/220/EEC on the deliberate release into the environment of genetically modified organisms [1990] OJ L 117/15, and Council Directive 90/219/EEC on the contained use of genetically modified micro-organisms [1990] OJ L 117/1.

[7] [2003] OJ L 287/1. [8] [2003] OJ L 268/1. [9] [2003] OJ L 268/24.

[10] (Montreal, 29 January 2000) 2226 UNTS 208. The Protocol uses the term 'living modified organism' (LMO) rather than GMO. On the definition of LMO see Art 3 of the Protocol. On the Cartagena Protocol see further D Langlet *Prior Informed Consent and Hazardous Trade: Regulating Trade in Hazardous Goods at the Intersection of Sovereignty, Free Trade and Environmental Protection* (2nd edn, Kluwer Law International, 2009) Chap 7.

large or small amounts for experimental purposes or put on the market as commercial products, may reproduce and cross national frontiers.[11] Hence there is reason to regulate both activities at EU level.

Based as it is on an article corresponding to the current Article 114 TFEU, Directive 2001/18/EC aims, in accordance with the precautionary principle, to approximate the laws, regulations, and administrative provisions of the Member States and to protect human health and the environment both when carrying out the deliberate release into the environment of GMOs for any other purposes than placing on the market within the EU and when placing on the market GMOs as or in products within the EU (Art 1).

By 'GMO' is understood an organism, with the exception of human beings, in which the genetic material has been altered in a way that does not occur naturally by mating and/or natural recombination. As 'organism' counts any biological entity capable of replication or of transferring genetic material. Annex I A, Part 1 contains a non-exhaustive list of techniques through which genetic modification occurs, whereas Part 2 of the same Annex lists techniques not considered to result in genetic modification. The techniques of genetic modification listed in Annex I B, including mutagenesis, are exempted from the scope of the Directive, as is the carriage of GMOs by rail, road, inland waterway, sea, or air. (Arts 2 and 3.)

Directive 2001/18/EC deals with the two main activities to which it applies in different parts: Part B sets out the procedure for deliberate release of GMOs for any other purpose than for placing on the market; Part C contains specific rules on the placing on the market of GMOs as or in products. These are complemented by Part A containing general provisions and Part D with final provisions. As will be further discussed presently, the procedure for placing GMOs on the market allocates decision-making power largely at the EU level, whereas the one for deliberate releases is more of an information procedure which leaves the authority to decide on the release with the Member State within whose territory the release is to take place.

As 'deliberate release' counts any intentional introduction into the environment of GMOs for which no specific containment measures are used to limit their contact with and to provide a high level of safety for the general population and the environment. The term 'placing on the market' covers, with a few exceptions,[12] the making available of GMOs to third parties, whether in return for payment or free of charge. (Art 2.)

General obligations applicable to the measures of both Parts B and C are set out in Article 4 of Part A. The first of these is that Member States must, in accordance with the precautionary principle, ensure that all appropriate measures are taken to avoid adverse effects on human health and the environment which might arise from the deliberate release or the placing on the market of GMOs. To that end, anyone

[11] Preambular para 4.

[12] Exceptions apply inter alia to the making available of GMOs to be used exclusively for deliberate releases complying with the requirements laid down in Part B of the Directive and to GMOs used exclusively for activities where appropriate stringent containment measures are used to limit their contact with and to provide a high level of safety for the general population and the environment. Art 2.

intending to submit a notification under Part B or Part C must first carry out an environmental risk assessment. Potential adverse effects on human health and the environment, which may occur directly or indirectly through gene transfer from GMOs to other organisms, must be accurately assessed on a case-by-case basis in accordance with Annex II.

Inspections and other control measures must be organised as appropriate, and in the event of a release of GMOs or placing on the market for which no authorisation was given, the Member State concerned must ensure that necessary measures are taken to terminate the release or placing on the market, to initiate remedial action if necessary, and to inform its public, the Commission, and other Member States. (Art 4.)

14.2.1 Deliberate release

Before deliberately releasing a GMO, a notification must be submitted to the competent authority of the Member State within whose territory the release is to take place. The notification shall include a technical dossier supplying the information specified in Annex III as well as an environmental risk assessment. The notifier may proceed with the release only after receiving the written consent of the competent authority, and in conformity with any conditions required in the consent (Art 6). The competent authority shall send a summary of each notification it receives to the Commission, which forwards it to the other Member States. The latter have thirty days to present observations. The competent authority that received the notification then makes a final decision of which it must inform the Commission, including, where relevant, the reasons for rejecting the notification. (Art 11.)

The public and, where appropriate, relevant groups shall be consulted on a proposed deliberate release. Subject to the provisions on confidentiality in Article 25, Member States also must make available to the public information on all Part B releases of GMOs in their territory. (Art 9.)

Subject to certain conditions, differentiated procedures may be approved for use in cases where sufficient experience has already been obtained of releases of certain GMOs in certain ecosystems and the GMOs concerned meet the criteria set out in Annex V (Art 7).

The introduction of GMOs into the environment should be carried out according to the so-called 'step by step' principle, that is, the containment is reduced and the scale of release increased gradually, step by step, but only if evaluation of the earlier steps indicates that the next step can be taken.[13]

14.2.2 Placing on the market

In accordance with Part C of the Directive, the decision-making procedure for placing GMOs on the market is more elaborate and the final decision is made at the EU level rather than by an individual Member State. Part C does not apply to GMOs

[13] Preambular para 24.

as or in products that are authorised by EU legislation which provides for a specific environmental risk assessment carried out in accordance with the principles set out in Annex II and which contains requirements at least equivalent to those laid down in the Directive. (Art 12.) As is further discussed presently, this means that GMOs for use as food or feed are authorised in accordance with the procedure set out in Regulation 1829/2003 on genetically modified food and feed.

Before a GMO or a combination of GMOs as or in products is placed on the market, a notification shall be submitted to the competent authority of the Member State where such a GMO is to be placed on the market for the first time. A copy of the notification shall be forwarded to the Commission, which in turn forwards it to the competent authorities of the other Member States.

The notification must normally contain, inter alia, the information required in Annexes III and IV; the environmental risk assessment; the conditions for the placing on the market of the product, including specific conditions of use and handling; a plan for monitoring in accordance with Annex VII; a proposal for labelling complying with the requirements laid down in Annex IV; and a proposal for packaging in accordance with Annex IV.

The competent authority shall prepare an assessment report and send it to the notifier. If the report indicates that the GMO(s) in question should be placed on the market the authority must send the report and any information on which it is based to the Commission, which forwards it to the other Member States. If, on the other hand, the competent authority decides that the GMO(s) should not be placed on the market, the notification shall be rejected. (Arts 13–15.)

When a report is forwarded, the competent authorities and the Commission have sixty days to ask for further information, make comments, or present reasoned objections to the placing on the market of the GMO(s) in question. If no reasoned objection is presented, the competent authority which prepared the report shall give consent for placing on the market for a maximum period of ten years subject to renewal.

In cases where an objection is raised and maintained by a competent authority or the Commission, a decision shall be adopted within 120 days in accordance with the examination procedure set out in Regulation (EU) No 182/2011.[14] The relevant Scientific Committee also must be consulted on the objection.[15] When, as tends to be the case with the authorisation of GMOs, the Member State committee acting under the examination procedure is unable to reach a decision, the final decision is made by the Commission in the form of an implementing decision.[16]

[14] Regulation (EU) No 182/2011 of the European Parliament and of the Council laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers [2011] OJ L 55/13 has replaced Decision 1999/468/EC to which reference is made in Art 30(2) of the Directive.

[15] This specific committee is called the Standing Committee on Plants, Animals, Food and Feed, Section Genetically Modified Food and Feed and Environmental Risk.

[16] See, eg, Commission Implementing Decision (EU) 2015/694 concerning the placing on the market, in accordance with Directive 2001/18/EC of the European Parliament and of the Council, of a carnation (Dianthus caryophyllus L., line 26407) genetically modified for flower colour [2015] OJ L 112/52.

Where a favourable decision is taken, the competent authority which prepared the report shall give consent to the placing on the market. The notifier may proceed with the placing on the market only after having received the written consent and in conformity with any conditions required in that consent. (Arts 15, 18, 19, and 28.)

For all GMOs that receive consent for placing on the market or whose placing on the market is rejected, the assessment reports and the opinion(s) of the scientific committees consulted must be made available to the public (Art 24).

On labelling requirements see Regulation (EC) No 1830/2003 concerning the traceability and labelling of GMOs and the traceability of food and feed products produced from GMOs.

GMOs that have received consent are subject to free circulation, that is, the Member States may not prohibit, restrict, or impede the placing on the market of GMOs, as or in products, which comply with the requirements of the Directive. However, the Directive includes a safeguard clause according to which a Member State may provisionally restrict or prohibit the use and/or sale of a GMO that has received consent on its territory. To do so the Member State must, as a result of new or additional information, have detailed grounds for considering that the GMO as or in a product constitutes a risk to human health or the environment. The Commission and the other Member States shall be informed immediately and a decision on the measure is to be taken in accordance with the examination procedure within sixty days. (Arts 22 and 23.)

14.2.3 National prohibitions on cultivation

In 2015 new provisions were introduced into the Directive enabling a Member State to demand, during the authorisation procedure of a given GMO or during the renewal of consent, that the geographical scope of the consent be adjusted so that all or part of the territory of that Member State is excluded from cultivation.[17] The notifier may then adjust or confirm the geographical scope of its initial notification. If that does not happen the adjustment shall be implemented in the written consent issued.

Also in cases where no such demand was made, a Member State may later adopt measures restricting or prohibiting the cultivation in all or part of its territory of a GMO once authorised in accordance with Part C of the Directive or with Regulation (EC) No 1829/2003 on genetically modified food and feed, provided that such measures are in conformity with EU law, are reasoned, proportional, and non-discriminatory, and, in addition, are based on compelling grounds. The Directive includes a non-exhaustive list of such grounds listing, inter alia, environmental policy objectives, town and country planning, socioeconomic impacts, avoidance of GMO presence in other products, and public policy. The Member

[17] Directive (EU) 2015/412 of the European Parliament and of the Council amending Directive 2001/18/EC as regards the possibility for the Member States to restrict or prohibit the cultivation of genetically modified organisms (GMOs) in their territory [2015] OJ L 68/1.

States are thus apparently provided with ample room for imposing restrictive measures on the cultivation of GMOs.

As from 3 April 2017, Member States in which GMOs are cultivated are required to take appropriate measures in border areas of their territory with the aim of avoiding possible cross-border contamination into neighbouring Member States in which the cultivation of those GMOs is prohibited. (Arts 26a and 26b.)

The Commission has also proposed an amendment to Regulation (EC) No 1829/2003 which would allow Member States to restrict or prohibit the use of GMOs and GM food and feed covered by the GMO legal framework, in part or all of their territory, thereby complementing the right to introduce national restrictions on cultivation.[18] However, this proposal has met with much criticism, and at the time of writing it is uncertain what will come out of it.

14.2.4 Food and feed

In practice, many applications for authorisation of GMOs are made according to the procedure set out in Regulation 1829/2003 on genetically modified food and feed, since that applies to GMOs that may be used as food or feed or as a source material for the production of food or feed as well as to food and feed containing or consisting of GMOs and food and feed produced from GMOs. However, except for certain requirements that are specific to food and feed, the procedure for authorisation is similar and, as noted previously, the same possibility to prohibit cultivation applies as under Directive 2001/18/EC.[19] The environmental safety requirements of Directive 2001/18/EC also apply to the evaluation of GMOs for food use and to food containing or consisting of GMOs. However, in this case the European Food Safety Authority (EFSA) fulfils some of the functions that under Directive 2001/18/EC pertain to a competent authority of a Member State.

14.3 Contained Use

Directive 2009/41/EC on the contained use of genetically modified micro-organisms (GMMs), which is based on an article corresponding to the current Article 192(1) TFEU, lays down common measures for the contained use of GMMs with a view to protecting human health and the environment (Art 1). The term 'micro-organisms' includes viruses, viroids, and animal and plant cells in culture. Subject to some specification, a GMM is a micro-organism in which the genetic material has been altered in a way that does not occur naturally by mating and/or natural recombination. As 'contained use' counts any activity in which

[18] Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EC) No 1829/2003 as regards the possibility for the Member States to restrict or prohibit the use of genetically modified food and feed on their territory (22 April 2015) COM(2015)177 final.

[19] On the decision-making procedure see further 'Reviewing the decision-making process on genetically modified organisms' (n 2).

micro-organisms are genetically modified or in which GMMs are cultured, stored, transported, destroyed, disposed of, or used in any other way, and for which specific containment measures are used to limit their contact with, and to provide a high level of safety for, the general population and the environment. GMMs which have been placed on the market in accordance with Directive 2001/18/EC or pursuant to other relevant EU legislation are generally exempted from the application of the Directive. (Arts 2 and 3.)

All appropriate measures are to be taken to avoid adverse effects on human health and the environment which might arise from the contained use of GMMs. To that end the user, that is, any natural or legal person responsible for the contained use of GMMs, shall carry out an assessment of the risks to human health and the environment that the contained use may pose. The assessment shall result in the final classification of any contained use in either of four classes, where Class 1 applies to activities of no or negligible risk and Class 4 to activities of high risk. Based on the classification and subject to some exceptions, the user shall apply the general principles and the appropriate containment and other protective measures specified in Annex IV, so as to keep workplace and environmental exposure to any GMMs to the lowest reasonably practicable level, and so that a high level of safety is ensured. The assessment as well as the containment and other protective measures applied must be reviewed periodically. (Arts 4 and 5.)

When premises are to be used for the first time for contained uses, the user shall be required to notify the competent authorities. A Class 3 or higher class of contained use may not proceed without the prior consent of the competent authority. (Arts 6 and 9.)

In the case of any accident within the scope of the Directive, the Member State concerned is required to inform the Commission as soon as possible (Art 15).

14.4 Transboundary Movements of GMOs

The EU is Party to the Cartagena Protocol on Biosafety and has implemented it through Regulation 1946/2003 on transboundary movements of GMOs.[20] The Regulation, which is based on an article corresponding to the current Article 192(1) TFEU, also provides for additional protective measures compared to the Protocol. Particularly significant in this regard is that the Regulation applies to shipments of GMOs from the EU to any other State, whereas the Protocol only applies to shipments between parties.[21]

When drafting the Regulation it was not perceived as necessary to include provisions on import of GMOs into the Union, since existing EU legislation already provides for relevant risk assessment procedures in such cases.[22]

[20] [2003] OJ L 287/1.

[21] On the Cartagena Protocol and its relationship to the Regulation see Langlet *Prior Informed Consent and Hazardous Trade* (n 10) Chap 7.

[22] Preambular para 14.

The objectives of the Regulation are, somewhat simplified, to establish a common system of notification and information for transboundary movements of GMOs and to ensure coherent implementation of the provisions of the Cartagena Protocol. It applies to the transboundary movements of all GMOs that may have adverse effects on the conservation and sustainable use of biological diversity, also taking into account risks to human health. Pharmaceuticals for humans that are addressed by other relevant international agreements or organisations are excluded from its scope.[23] (Arts 1 and 2.)

Before any first intentional transboundary movement of a GMO intended for deliberate release into the environment, the exporter must ensure notification, in writing, to the competent authority of the country of import. No first intentional transboundary movement may be made without the prior written express consent of that country. However, this does not apply to cases of transboundary movements covered by simplified procedures or bilateral, regional, and multilateral agreements or arrangements entered into in accordance with Articles 13 or 14 of the Cartagena Protocol.[24] (Arts 4 and 5.)

These requirements also do not apply to transboundary movements of GMOs intended for contained use where such transboundary movements are undertaken in accordance with the standards of the State of import (Art 11).

GMOs that may be subject to transboundary movements for direct use as food or feed or for processing (FFP) are subject to a distinct procedure based on the so-called Biosafety Clearing-House (BCH) established by the Cartagena Protocol. The Commission on behalf of the EU or, where appropriate, the Member State which made the decision shall inform the BCH and other Parties through the BCH of any final decision regarding use, including placing on the market, within the EU or use within a Member State, of a GMO that may be subject to transboundary movements for direct use as FFP. This does not apply to decisions regarding the deliberate release in accordance with Part B of Directive 2001/18/EC of a GMO which is not intended for direct use as FFP in a third country without a subsequent decision.

Exporters must respect any decision on import taken under a regulatory framework that is consistent with the objective of the Protocol.

Developing States and those with an economy in transition may instead choose to apply a special procedure set out in Article 14 of the Cartagena Protocol. In such case the exporter may not proceed with the first export unless the procedure provided for under that provision has been followed. No GMO that may be subject to transboundary movements for direct use as FFP may be exported, unless it is authorised within the EU or the competent authority of a third country has expressly agreed to the import as required under Article 12 of

[23] On such relevant agreements see R Mackenzie et al (eds) *An Explanatory Guide to the Cartagena Protocol on Biosafety* (IUCN, 2003) 57.

[24] On such simplified procedures and bilateral, regional and multilateral agreements or arrangements, see Langlet *Prior Informed Consent and Hazardous Trade* (n 10) 169 and 174.

Regulation (EC) No 178/2002 laying down the general principles and requirements of food law.[25]

Exporters shall ensure that certain information, including that the shipment contains or consists of GMOs, is stated in a document accompanying the GMO and is transmitted to the importer.

Member States must take appropriate measures to prevent unintentional transboundary movements of GMOs (Arts 12 and 14).

Further Reading

L Bodiguel and M Cardwell (eds) *The Regulation of Genetically Modified Organisms: Comparative Approaches* (Oxford University Press, 2010)

T Christoforou 'The Regulation of Genetically Modified Organisms in the European Union: The Interplay of Science, Law and Politics' (2004) 41 *Common Market Law Review* 637–710

C Klika, K Jinhee, and E Versluis 'Why Science Cannot Tame Politics: The New EU Comitology Rules and the Centralised Authorisation Procedure of GMOs' (2013) 4 *European Journal of Risk Regulation* 327–34

D Langlet *Prior Informed Consent and Hazardous Trade: Regulating Trade in Hazardous Goods at the Intersection of Sovereignty, Free Trade and Environmental Protection* (2nd edn, Kluwer Law International, 2009) Chap 7

S Poli 'The Member States' Long and Winding Road to Partial Regulatory Autonomy in Cultivating Genetically Modified Crops in the EU' (2013) 4 *European Journal of Risk Regulation* 143–58

[25] Regulation (EC) No 178/2002 of the European Parliament and of the Council laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety [2002] OJ L 31/1.

15

Biodiversity

Facts and figures

Global rates of species extinction are unparalleled. Driven mainly by human activities, species are currently being lost 100 to 1,000 times faster than the natural rate.

(Our life insurance, our natural capital)

The Natura 2000 network covers more than 18 per cent of the EU's land and 4 per cent of its seas.

Across the EU, 16 per cent of habitat-assessments are favourable, while more than three quarters are unfavourable.

Unless there is a significant improvement in trends it will not be possible to achieve the nature protection targets by 2020.

(The State of Nature in the European Union)

15.1 Introduction

According to the internationally established definition, laid down by the 1992 Convention on Biological Diversity (CBD), biodiversity is the variability among living organisms from all sources and the ecological complexes of which they are part; it includes diversity within species, between species, and of ecosystems.[1] Internationally, work on the preservation of biodiversity is carried out within the framework of several conventions, many of which are regional or address specific species. The CBD, with its global scope and general applicability to biodiversity, provides an overarching legal and policy framework.

That species become extinct is highly natural and part of a process that has been ongoing since the dawn of life on this planet. But the pace at which species are currently disappearing can only be compared to mass extinctions caused by global catastrophes such as major meteorite impacts. That species migrate into new areas

[1] Convention on Biological Diversity (CBD) (Rio de Janeiro, 5 June 1992) 1760 UNTS 79, Art 2. It has also been defined, eg, as 'the variety of ecosystems, species and genes'. Communication from the Commission—Options for an EU vision and target for biodiversity beyond 2010 (19 January 2010) COM(2010) 4 final, 1.

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and colonise new habitats, sometimes changing them profoundly, is also a wholly natural process, driven, inter alia, by naturally occurring climate change. However, human activities, such as global commerce and pet trade, can bring the rate at which this happens to unprecedented levels.

In 2001 the European Council decided as an objective that biodiversity decline should be halted by 2010.[2] The following year the parties to the CBD committed themselves to achieve, also by 2010, a significant reduction of the rate of biodiversity loss at the global, regional, and national levels. Neither of these targets were met.[3] In 2010 the Council set 'halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible' as a new headline biodiversity target.[4] The following year this was supplemented by a biodiversity strategy to 2020.[5]

The overall negative trend for biodiversity has continued despite an increasing number of measures being agreed by the EU to protect biodiversity both within the Union and globally. Some impact of EU protection efforts can be seen but still the conservation status of only 16 per cent of habitats in the EU has been found to be favourable and more than three quarters unfavourable, with the situation for individual species only slightly better.[6] The 2020 target will not be met unless trends change rapidly and strongly for the better.

The centrepiece of EU policy in this area is the network of nature protection areas known as Natura 2000. The legal foundation for this network is provided by the two directives on, respectively, the conservation of wild birds ('the Birds Directive') and on the conservation of natural habitats and of wild fauna and flora ('the Habitats Directive'). They also provide protection to many species outside such protection areas. While the brunt of this chapter is dedicated to these two directives, some attention is also dedicated to the regulation of international trade in endangered species and to the newly adopted directive on invasive species.

[2] Presidency Conclusions—Göteborg, 15 and 16 June 2001, European Council, SN 200/1/01 REV 1, para 31.

[3] Report from the Commission—The 2010 Assessment of Implementing the EU Biodiversity Action Plan (8 October 2010) COM(2010) 548 final.

[4] Conclusions adopted by the Council (Environment) on 15 March 2010, 7536/10, Annex, para 2.

[5] Communication from the Commission—Our life insurance, our natural capital: an EU biodiversity strategy to 2020 (3 May 2011) COM(2011) 244 final. The strategy was endorsed by the Council in 2011. Conclusions adopted by the Council (Environment) on 21 June 2011, 11978/11, Annex. Target 1 of the strategy is to halt the deterioration in the status of all species and habitats covered by EU nature legislation and achieve a significant and measurable improvement in their status so that by 2020, compared to current assessments: (a) 100 per cent more habitat assessments and 50 per cent more species assessments under the Habitats Directive show an improved conservation status; and (b) 50 per cent more species assessments under the Birds Directive show a secure or improved status.

[6] Communication from the Commission: The State of Nature in the European Union—Report on the status of and trends for habitat types and species covered by the Birds and Habitats Directives for the 2007–2012 period as required under Article 17 of the Habitats Directive and Article 12 of the Birds Directive (20 May 2015) COM/2015/0219 final, 7–8.

15.2 The Conservation of Wild Birds

A Directive 79/409/EEC on the conservation of wild birds (the 'Birds Directive') was adopted as early as 1979,[7] based on an article corresponding to the current Article 352 TFEU.[8] Over the years several amendments were made, though mostly to the Annexes, and a new codified version was adopted in 2009 as Directive 2009/147/EC.[9] It is still striking, however, how little has been changed in the main parts of the Directive over the more than thirty-five years since its original adoption.

The Birds Directive, which is now based on Article 192(1) TFEU, relates to the conservation of all species of naturally occurring birds in the wild state in the European territory of the Member States (hereafter 'the EU').[10] It covers the protection, management, and control of these species and lays down rules for their exploitation. In addition to birds, the Directive applies to their eggs, nests, and habitats (Art 1). As is made clear in the preamble, most species of wild birds naturally occurring in the EU are migratory, thereby making effective bird protection a trans-frontier environment problem entailing common responsibilities.

Under the Directive's slightly opaque overarching obligation, the Member States must take the requisite measures to maintain the population of all species of birds naturally occurring in the Union 'at a level which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements, or to adapt the population of these species to that level' (Art 2). More concretely, the Member States shall take the requisite measures to preserve, maintain, or re-establish a sufficient diversity and area of habitats for all these species. This is to include primarily four types of measures: creation of protected areas; upkeep and management in accordance with the ecological needs of habitats inside and outside the protected zones; re-establishment of destroyed biotopes; and creation of biotopes. (Art 3.)

Annex I to the Directive contains a list of roughly 200 species and sub-species of birds that are endangered in the Union.[11] The habitats of these species shall be the subject of special conservation measures in order to ensure their survival and reproduction. In order to provide such protection, the Member States must classify the most suitable territories in number and size as so-called special protection areas (SPAs) for the conservation of these species. Similar measures are to be taken for regularly occurring migratory species not listed in Annex I, as regards their

[7] [1979] OJ L 103/1.

[8] This article allows measures to be adopted to attain one of the objectives set out in the Treaties even if the Treaties have not provided the necessary powers. This reflected the fact that this was before the then EEC was given explicit competence to adopt measures on environmental protection.

[9] [2010] OJ L 20/7.

[10] The ambit of the Directive is limited to the European territory of the Member States to which the Treaty applies. This means that eg the Faroe Islands are not covered. Art 355 TFEU.

[11] More specifically they are listed on the ground of being in danger of extinction; vulnerable to specific changes in their habitat; considered rare because of small populations or restricted local distribution; or requiring particular attention for reasons of the specific nature of habitat.

breeding, moulting, and wintering areas and staging posts along their migration routes. Member States must pay particular attention to the protection of wetlands.

The Birds Directive has been interpreted by the Court of Justice on many occasions. The Court has tended to favour a reading resulting in a strong protection of birds and their habitats. In the so-called *Lappel Bank* case it established, in 1995, that when designating SPAs and defining their boundaries the Member States must be guided by ornithological criteria. They are not authorised to take account of the economic requirements mentioned in Article 2 even if these were to constitute imperative reasons of overriding public interest.[12]

Both the Commission and the Court of Justice have tended to use the so-called IBA[13] directory of priority sites for bird conservation as a basis of reference for assessing whether a Member State has classified a sufficient number and size of areas as SPAs.[14] Member States must provide the Commission with all relevant information enabling it to ensure that the protection areas form a coherent whole, which meets the protection requirements. As will be further discussed below in the section on the Habitats Directive, the SPAs now form part of the Natura 2000 network.

In the protection areas the birds are to be protected from pollution, deterioration of habitats, and any other disturbances that could have a significant effect on their ability to survive and reproduce (Art 4).

However, part of Article 4 of the Birds Directive has been replaced by the provisions on protected areas in the Habitats Directive.[15] In this way a number of legitimate grounds for making exceptions from the very strong protection established by the Birds Directive, as interpreted by the Court of Justice,[16] have been introduced. These grounds are discussed in some detail presently in relation to the Habitats Directive.[17] Interestingly, areas that have not been classified as SPAs although they should have been so classified continue, according to the Court of Justice, to be covered by the protection that follows from the part of the Birds Directive that has been replaced with respect to SPAs.[18]

In addition to protected areas, Member States must establish a general system of protection for all species of birds covered by the Birds Directive. That includes prohibiting a number of activities involving the birds, their eggs, or nests. Among the things that shall be prohibited are deliberate killing or capture; deliberate destruction of, or damage to, nests and eggs; taking eggs in the wild and keeping them even if empty; and deliberate and significant disturbance of the birds, particularly during the period of breeding and rearing. The Court of Justice has held that, for killing or capture to be considered deliberate, 'it must be proven that the author of the act

[12] Case C-44/95 *Royal Society for the Protection of Birds* ECLI:EU:C:1996:297, paras 26–27 and 42.

[13] IBA stands for Important Bird Area(s). The sites are identified locally, using internationally agreed criteria, and compiled into a common list by BirdLife International, a partnership of national conservation NGOs.

[14] See eg Case C-235/04 *Commission v Spain* ECLI:EU:C:2007:386, para 26 with further references.

[15] Dir 92/43/EEC, Art 7.

[16] See, eg, Case C-57/89 *Commission v Germany* (Leybucht) ECLI:EU:C:1991:89.

[17] See section 15.3.

[18] Case C-374/98 *Commission v France* ECLI:EU:C:2000:670, para 47.

intended the capture or killing of a specimen belonging to a protected animal species or, at the very least, accepted the possibility of such capture or killing'.[19] The keeping of birds of species the hunting and capture of which is prohibited must also be prohibited.

Furthermore, the sale, transport for sale, keeping for sale, and offering for sale of live or dead birds covered by the Directive and of any readily recognisable parts or derivatives of such birds shall be prohibited. However, the species referred to in Annex III, Part A, are exempted from these prohibitions provided that the birds in question have been legally killed or captured or otherwise legally acquired. With respect to the species listed in Part B of the same Annex, Member States may, under certain conditions and after having consulted the Commission, allow the otherwise prohibited activities. (Arts 5–6.)

The species listed in Annex II may be hunted according to national legislation either in the whole EU or in indicated Member States. The hunting must not be allowed to jeopardise conservation efforts in the distribution area of the respective species. The practice of hunting must comply with the principles of wise use and ecologically balanced control of the species concerned.

All methods used for the large-scale or non-selective capture or killing of birds or capable of causing the local disappearance of a species must be prohibited. This applies in particular to the use of the methods listed in Annex IV, point (a). These include snares (with a few exceptions), limes, hooks, tape recorders, artificial light sources, explosives, nets, traps, and poisoned bait. Hunting from aircraft, motor vehicles, and boats driven at a speed exceeding five kilometres per hour must also be prohibited. (Arts 7–8.)

In addition to the specific exemptions provided for in the respective articles there are also, in Article 9, general grounds on which a Member State may rely to make exemptions from the prohibitions that apply to all birds covered by the Directive. Such derogations (from the provisions of Articles 5–8) are only permissible if there is no other satisfactory solution and only for the listed reasons. Among the reasons are the interests of public health and safety; the prevention of serious damage to crops, livestock, forests, fisheries, and water; the protection of flora and fauna; and research and teaching. Member States may furthermore permit, under strictly supervised conditions and on a selective basis, the capture, keeping, or other judicious use of certain birds in small numbers.[20] Any derogations shall be reported yearly to the Commission whose task it is to ensure that the consequences of the derogations are not incompatible with the Directive.

Member States shall see that any introduction of species of bird which do not occur naturally in the wild state in the EU does not prejudice the local flora and fauna (Art 11). However, since 2014 so-called invasive alien species have been the subject of a specific regulation discussed in section 15.5.

[19] Case C-221/04 *Commission v Spain* ECLI:EU:C:2006:329, para 71.

[20] On the notion of 'small numbers' of birds see Case C-60/05 *WWF Italia and Others* ECLI:EU:C:2006:378, paras 23–27.

According to the general non-deterioration clause in Article 13, application of the measures taken pursuant to the Directive may not lead to deterioration in the present situation as regards the conservation of the species covered.

Every three years the Member States shall report to the Commission on the implementation of national provisions taken under the Directive (Art 12).

That Member States may introduce stricter protective measures than those provided for under the Directive follows from the fact that it is based on a treaty article corresponding to the current Article 192(1) TFEU but is also explicitly stated in Article 14. However, the Court of Justice has found that with respect to birds that are neither threatened (Annex I species) nor migratory, the Member States are not authorised to adopt stricter protective measures than those provided for under the Directive, except as regards species occurring within their own territory. Import restrictions may hence not be imposed on such species in order to enhance their protection.[21]

The implementation of the Directive in the Member States has been quite problematic and generated well over 100 cases in front of the Court of Justice. Among the issues to be addressed are the correct interpretation of Article 4 (SPAs), hunting of species referred to in Annex II (Article 7), and derogations (Article 9).

15.3 The Habitats Directive

Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive') has, since its adoption in 1992, been the cornerstone of the EU's nature protection policy.[22] It provides the main legal platform for the EU-wide network of nature protection areas known as Natura 2000. Its adoption was prompted by the continuing deterioration of natural habitats in the Member States and the growing number of wild species that were seriously threatened. The threatened habitats and species are seen as part of the EU's natural heritage and since the threats to them are often of a transboundary nature, it was necessary to take measures at EU level in order to conserve them.[23]

15.3.1 Defining areas and species to be protected

As may be expected, the Habitats Directive is based on a previous Treaty article corresponding to the current Article 192(1) TFEU, that is, the legal basis for environmental policy. The protective measures prescribed by the Directive are, with some exceptions, directed at particular listed species and areas. It is therefore appropriate to begin an examination of the Directive with a look at the definitions, set out in the extensive Article 1, of the different kinds of areas, species, and habitat types whose identification or designation provide the basis for the protection mechanisms of the

[21] Case C-169/89 *Gourmetterie Van den Burg* ECLI:EU:C:1990:227.
[22] [1992] OJ L 206/7. [23] Preamble para 4.

Directive. Before engaging with these definitions it should, for the sake of clarity, be pointed out that since the Habitats Directive dates from the 1990s, it uses the word 'Community' for what would today be referred to as 'Union'.

'Natural habitat types of Community interest' are habitat types which are in danger of disappearance in their natural range within the EU,[24] or which have a small natural range following their regression or by reason of their intrinsically restricted area. It can also be habitat types that present outstanding examples of typical characteristics of one or more of nine listed biogeographical regions, including Alpine, Atlantic, Continental, and Mediterranean. These habitat types are listed or may be listed in Annex I. About 230 habitat types are currently on the list. Among the natural habitat types of Community interest, some qualify as 'priority natural habitat types', and are indicated by an asterisk in Annex I. These are natural habitat types in danger of disappearance, which are present in the EU and for the conservation of which the Union has particular responsibility in view of the proportion of their natural range which falls within the EU.

There are also 'species of Community interest', which, with certain exceptions, are species that are endangered, vulnerable, rare,[25] or endemic within the EU. Such species are listed or may be listed in Annex II and/or Annex IV or V. A subcategory, indicated by an asterisk in Annex II, is so-called 'priority species'. These are endangered species for the conservation of which the EU has particular responsibility in view of the proportion of their natural range which falls within the EU's territory.

When it comes to the identification of specific sites or areas there are two core notions. The first of these, 'site of Community importance' (SCI), is any site which, in the biogeographical region or regions to which it belongs, contributes significantly to the maintenance or restoration at a favourable conservation status of a natural habitat type in Annex I or of a species in Annex II. It may also contribute significantly to the coherence of Natura 2000. A site may also qualify if it contributes significantly to the maintenance of biological diversity within the biogeographic region or regions concerned.

An equally important notion is 'special area of conservation' (SAC), that is, a site of Community importance designated by the Member States through a statutory, administrative, and/or contractual act where the necessary conservation measures are applied for the maintenance or restoration, at a favourable conservation status, of the natural habitats and/or the populations of the species for which the site is designated. The procedure for designation of such areas is further discussed presently.

The overall aim of the Habitats Directive is to contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States (here referred to as 'the EU').[26]

[24] Or, more precisely, within the European territory of the Member States. In order to keep the text reasonably short this is referred to as the EU in this section.

[25] The terms 'vulnerable' and 'rare' are defined in Art 1.

[26] Only those parts of the European territory of the Member States to which the Treaties apply are covered. This means that, inter alia, the Faroe Islands fall outside the geographical scope of the Directive. Art 355 TFEU.

Measures taken pursuant to the Directive shall be designed to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest. The measures shall take account of economic, social, and cultural requirements and regional and local characteristics. (Art 2.)

For the conservation status of a natural habitat to be considered 'favourable', its natural range and the areas it covers within that range must be stable or increasing, and the specific structure and functions which are necessary for its long-term maintenance must exist and be likely to continue to exist for the foreseeable future. The conservation status of its typical species must also be favourable.

The conservation status of a species is 'favourable' when: (a) the population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats; (b) the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future; and (c) there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis. (Art 1.)

15.3.2 Designation of areas

As mentioned, the Habitats Directive establishes the Natura 2000 European ecological network of SACs. The network, which is composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, shall enable the natural habitat types and the species' habitats concerned to be maintained or restored at a favourable conservation status in their natural range. The network also includes the special protection areas (SPAs) classified by the Member States pursuant to the Birds Directive (2009/147/EC).

Each Member State's contribution to the creation of Natura 2000 shall be proportional to the representation within its territory of the natural habitat types and the habitats of species referred to previously.

The Court of Justice has made clear that the Directive is applicable beyond the Member States' territorial waters and applies in their exclusive economic zones and on their continental shelves to the extent that the Member States exercise sovereign rights in those areas.[27]

For the establishment of Natura 2000, each Member State must propose to the Commission a list of sites indicating which natural habitat types listed in Annex I and which species listed in Annex II that are native to its territory the sites host. The list must be based on the criteria set out in Annex III (Stage 1) and relevant

[27] Case C-6/04 *Commission v United Kingdom* ECLI:EU:C:2005:626, para 117. On the significance of the Directive for the protection of marine species see A Christiernsson, G Michanek, and P Nilsson 'Marine Natura 2000 and Fishery—The Case of Sweden' (2015) 12 *Journal for European Environmental & Planning Law* 22–49 and S Luk and S Gregerson 'Marine Species Protection and Management in the European Union: Who Will Save Our Dolphins?' in C-H Born and others (eds) *The Habitats Directive in its EU Environmental Law Context: European Nature's Best Hope?* (Routledge, 2014) 399–416.

scientific information. Where appropriate, Member States shall propose adaptation of the list in the light of the results of surveillance activities carried out.

The Court of Justice has emphasised that the creation of a coherent European ecological network of SACs, that is, the Natura 2000,[28] requires the Commission to have access to an exhaustive list of the sites which, at national level, have an ecological interest which is relevant from the point of view of the Habitats Directive's objective. It is not permissible for the Member States to take account of economic, social, and cultural requirements when selecting and defining the boundaries of the sites to be included in the list which they must draw up and transmit to the Commission.[29] However, many Member States have been reluctant not to allow such considerations to play a part in the selection of SPAs.[30] An 'Interpretation Manual of European Union Habitats' has been developed to assist in the application of Annex I.[31]

On the basis of the lists submitted by the Member States and the criteria set out in Annex III (Stage 2), the Commission establishes, in agreement with each Member State, a draft list of SCIs. A Member State may not refuse to agree to the inclusion of a site in the draft list on grounds other than environmental protection.[32] The list is then adopted by the Commission in accordance with a committee procedure involving the Committee on the conservation of natural habitats and of wild fauna and flora.[33]

Once a site has been adopted as a SCI, the Member State concerned shall designate that site as a SAC as soon as possible and within six years at most. However, already by submitting a list of proposed sites to the Commission the Member State incurs an obligation to take protective measures that are appropriate, from the point of view of the Directive's conservation objective, for the purpose of safeguarding the relevant ecological interest which those sites have at national level.[34] The Member State concerned may not authorise interventions which may pose the risk of seriously compromising the ecological characteristics of such a site.[35] (Art 4.)

Even sites which have not been included in the national list, but which the Member State concerned does not dispute satisfy the ecological criteria for listing as SCIs and which should therefore have been on the list, are subject to the same protection.[36]

[28] Although Natura 2000 also includes the SPAs established under the Birds Directive.

[29] Case C-371/98 *First Corporate Shipping* ECLI:EU:C:2000:600, paras 22–24.

[30] See H Schoukens and H E Woldendorp 'Site Selection and Designation under the Habitats and Birds Directives: a Sisyphean Task?' in C-H Born and others (eds) *The Habitats Directive in Its EU Environmental Law Context: European Nature's Best Hope?* (Routledge, 2014) 31–55.

[31] Interpretation Manual of European Union Habitats EUR 28 (April 2013) European Commission DG Environment, Nature ENV B.3.

[32] Case C-226/08 *Stadt Papenburg* ECLI:EU:C:2010:10, para 33.

[33] On the procedure see Art 21.

[34] Case C-117/03 *Società Italiana Dragaggi and Others* ECLI:EU:C:2005:16, para 30.

[35] The meaning of this was further elaborated in Case C-244/05 *Bund Naturschutz in Bayern and Others* ECLI:EU:C:2006:579, para 46.

[36] Case C-340/10 *Commission v Cyprus* ECLI:EU:C:2012:143, para 46.

If a site on the list of SCIs is found to be definitively no longer capable of contributing to the achievement of the objectives of the Habitats Directive, the Member State concerned must propose to the Commission that the site be declassified. This is to prevent resources being used in vain to manage sites which are of no use to the conservation of natural habitats and species.[37]

There is a procedure for including on the list of SCIs, in exceptional cases, a site not mentioned on a list submitted by a Member State. Such a site must, in the Commission's view, be essential for the maintenance of a priority natural habitat type or for the survival of a priority species, and it can only be included after a unanimous decision by the Council. The Member State submitting the list can thus prevent the site from being listed as a SCI by opposing such a decision in the Council. However, during the consultation period and pending a Council decision, the site concerned is subject to some additional protection under the Directive. (Art 5.)

15.3.3 Protective measures

For each SAC the Member State concerned must establish the necessary conservation measures corresponding to the ecological requirements of the natural habitat types in Annex I and the species in Annex II present on the site. Such measures should, if need be, involve appropriate management plans. More specifically, Member States are obliged to take appropriate steps to avoid, in the SACs, the deterioration of natural habitats and the habitats of species, as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of the Directive.[38] (Art 6.)

In order to find a breach of this obligation there is no need to prove a cause-and-effect relationship between an activity and significant disturbance to a species for which the area has been designated. The existence of a probability or risk that an operation might cause significant disturbances for such a species is sufficient if the Member State has authorised the activity or at least failed to take measures for bringing it to an end.[39]

Of particular practical significance is the assessment requirement pertaining to any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect on an SAC, either individually or in combination with other plans or projects. Any such plan or project must be subject to appropriate assessment of its implications for the site in view of its conservation

[37] Case C-301/12 *Cascina Tre Pini* ECLI:EU:C:2014:214, paras 27–28.

[38] This obligation to protect the site applies also with respect to the implementation of projects that were authorised before a particular site was classified as an SPA. Case C-404/09 *Commission v Spain* ECLI:EU:C:2011:425, paras 124–125. On possible exemptions from this protection see ibid paras 156–157.

[39] Ibid, paras 142 and 152.

objectives.[40] A pressing question is, obviously, how one is to know whether a plan or a project is likely to have a significant effect on an SAC, and therefore require an impact assessment? The Court of Justice has found that, in the light of the precautionary principle, a plan or project requires an assessment unless it can be 'excluded, on the basis of objective information', that it will have a significant effect on the site concerned.[41] The Court has also held that although the Habitats Directive does not define any particular method for carrying out an 'appropriate assessment', such an assessment must identify all the aspects of the plan or project which can, either individually or in combination with other plans or projects, affect the site's conservation objectives in the light of the best scientific knowledge in the field.[42] An assessment is not appropriate if it contains gaps and lacks complete, precise, and definitive findings and conclusions 'capable of removing all reasonable scientific doubt' as to the effects of the works proposed on the site concerned.[43] Categories of projects cannot be exempted from assessment unless that is done on the basis of criteria which adequately ensure that those projects will not have a significant effect on the protected sites.[44]

The competent national authorities, taking account of the conclusions of the appropriate assessment, may only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public (Art 6). This applies also when a plan or a project is approved by a legislative authority.[45]

In order for the integrity of a site not to be adversely affected, the site needs to be preserved at a favourable conservation status. This entails the lasting preservation of the constitutive characteristics of the site concerned that are connected to the presence of a natural habitat type whose preservation was the objective justifying the designation of that site in the list of SCIs.[46] Only where 'no reasonable scientific doubt remains' as to the absence of adverse effects on the integrity of the site may the national authorities authorise the activity.[47]

Where the development consent given to a project is annulled because reliable and updated data concerning the species concerned was missing when the decision was taken, the Court of Justice has opened the possibility to gather a posteriori reliable and updated data and appraise, on the basis of that data, whether the project adversely affects the integrity of the site.[48]

Compensatory measures that are not aimed either at avoiding or reducing the significant adverse effects for a habitat type, but rather tend to compensate after

[40] Regarding plans or projects that were approved before the site in question was placed on the list of SCIs, see Case C-399/14 *Grüne Liga Sachsen and Others* ECLI:EU:C:2016:10.

[41] Case C-127/02 *Waddenvereniging and Vogelbeschermingsvereniging* ECLI:EU:C:2004:482, paras 43–44.

[42] Ibid, para 54. [43] Case C-404/09 *Commission v Spain* (n 38), para 100.

[44] Case C-98/03 *Commission v Germany* ECLI:EU:C:2006:3, para 41.

[45] Case C-182/10 *Solvay and Others* EU:C:2012:82, para 69.

[46] Case C-258/11 *Sweetman and Others* ECLI:EU:C:2013:220, para 39.

[47] Case C-127/02 *Waddenvereniging* (n 41), para 59.

[48] Case C-43/10 *Nomarchiaki Aftodioikisi Aitoloakarnanias and Others* ECLI:EU:C:2012:560, para 116.

the fact for those effects, may not be taken into account in the assessment of the implications of the project.[49]

Under certain circumstances plans or projects may be authorised even if they do negatively affect the integrity of a protected site. This is the case if there are no alternative solutions and the plan or project must be carried out for imperative reasons of overriding public interest, including those of a social or economic nature. In such a case the Member State must take, and inform the Commission of, all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. If the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment, or, after the Commission has issued an opinion, to other imperative reasons of overriding public interest. (Art 6.)

As a derogation from the criterion for authorisation, the provision allowing a plan or project to be carried out for imperative reasons of overriding public interest is to be interpreted strictly.[50] More specifically, the Court of Justice has held that works intended for the location or expansion of an undertaking may be considered to be of both 'public' and 'overriding' interest only in exceptional circumstances.[51]

A guidance document on the assessment of plans and projects significantly affecting Natura 2000 sites has been published by the Commission.[52] The Court of Justice has stressed that in order to determine the nature of any compensatory measures, the damage to the site must be precisely identified.[53]

The restrictions imposed on plans and projects that may adversely affect the integrity of protected sites have, particularly in some Member States, been criticised for being inflexible and not only restricting environmentally harmful activities but also hindering those that could, viewed in a broader perspective or over a longer period of time, contribute to a more sustainable long-term preservation of ecosystems and other environmental values. The level of flexibility seems, however, at least partly to depend on choices made in the national implementation of the Directive.[54] Although there is always a risk that overly rigid rules become

[49] Case C-521/12 *Briels and Others* ECLI:EU:C:2014:330, paras 29–31. On the practically important issue of compensation see G van Hoorick 'Compensatory Measures in European Nature Conservation Law: a State-of-the-art after the Briels Case and the Acheloos River Case' (2015) 12 *US-China Law Review* 174–94 and D McGillivray 'Compensatory Measures under Art. 6 (4) of the Habitats Directive: No Net Loss for Natura 2000?' in C-H Born and others (eds) *The Habitats Directive in its EU Environmental Law Context: European Nature's Best Hope?* (Routledge, 2014) 101–18.

[50] Case C-239/04 *Commission v Portugal* ECLI:EU:C:2006:665, para 35.

[51] Case C-182/10 *Solvay* (n 45), para 75.

[52] European Commission, Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Office for Official Publications of the European Communities, 2002.

[53] Case C-182/10 *Solvay* (n 45), para 74.

[54] F H Kistenkas 'Rethinking European Nature Conservation Legislation: Towards Sustainable Development' (2013) 10 *Journal for European Environmental & Planning Law* 72–84. On the 'strictness' of the species protection regime see also H Schoukens and K Bastmeijer 'Species Protection in the European Union: How Strict is Strict?' in C-H Born and others (eds) *The Habitats Directive in its EU Environmental Law Context: European Nature's Best Hope?* (Routledge, 2014) 121–46.

counterproductive and limit the room for a holistic approach to complex conservation challenges, this must be balanced against the risk that the cumulative effect of many instances of apparently harmless flexibility amount to considerable impairment to the objectives of the protection regime.

The Directive provides, under certain circumstances, for EU co-financing which the Member States consider necessary to allow them to establish the necessary conservation measures (Art 8).

Also with respect to unprotected areas, the Member States shall endeavour, in their land-use planning and development policies, to encourage the management of features of the landscape which are of major importance for wild fauna and flora (Art 10).

Member States must undertake surveillance of the conservation status of the natural habitats and species covered by the Directive with particular regard to priority natural habitat types and priority species. In this context an SAC may be considered for declassification where this is warranted by natural developments. (Arts 9 and 11.)

Annex 4 to the Directive lists animal and plant species of Community interest in need of strict protection. The Member States must establish a system of strict protection for the animal species listed in Annex IV(a) in their natural range. All forms of deliberate capture or killing[55] of specimens of these species in the wild; any deliberate disturbance, deliberate destruction, or taking of eggs from the wild; or deterioration or destruction of breeding sites or resting places of these species shall be prohibited. The Court of Justice has made clear that there is an obligation not merely to adopt a comprehensive legislative framework but also to implement 'concrete and specific protection measures'.[56] The Court has also focused on the effectiveness of any measures taken. It has found that the system of strict protection presupposes the adoption of coherent and coordinated measures of a preventive nature.[57] Furthermore, the system must

> enable the effective avoidance of all forms of deliberate capture or killing of specimens of animal species listed in Annex IV(a) in the wild, deliberate disturbance of the species, particularly during the period of breeding, rearing, hibernation and migration, deliberate destruction or taking of eggs from the wild as well as deterioration or destruction of breeding sites or resting places of those species.[58]

The keeping, transport, and sale or exchange, and offering for sale or exchange, of specimens taken from the wild, except for those taken legally before the Habitats Directive was implemented, shall also be prohibited. Member States must establish a system to monitor the incidental capture and killing of the animal species listed in

[55] On the notion of 'deliberate' capture and killing see Case C-221/04 *Commission v Spain* (n 19).

[56] Case C-183/05 *Commission v Ireland* ECLI:EU:C:2007:14, para 29.

[57] Case C-518/04 *Commission v Greece* ECLI:EU:C:2006:183, para 16.

[58] Case C-340/10 *Commission v Cyprus* (n 36), para 62. Regarding avoidance of deterioration or destruction of breeding sites or resting places, see also Case C-103/00 *Commission v Greece* ECLI:EU:C:2002:60 and Case C-383/09 *Commission v France* ECLI:EU:C:2011:369.

Annex IV(a). A similar system of strict protection is to be established for the plant species listed in Annex IV(b). Among the things that shall be prohibited are the deliberate picking, uprooting, or destruction of such plants in their natural range in the wild. (Arts 12 and 13.)

With respect to the capture or killing of species of wild fauna listed in Annex V, the Member States shall prohibit the use of all indiscriminate means capable of causing local disappearance of, or serious disturbance to, populations of such species. This includes prohibiting, inter alia, the use of explosives and poisons and poisoned or anaesthetic bait as well as the use of aircraft or moving motor vehicles. (Art 15.)

Derogations from the prohibition on the capturing and killing of species may be granted, inter alia, in the interest of protecting wild fauna and flora and conserving natural habitats; to prevent serious damage, in particular to crops, livestock, forests, fisheries and water, and other types of property; or for imperative reasons of overriding public interest. Derogations are only allowed if there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range. The Court of Justice has made clear that derogations may not be contrary to the 'spirit and purpose' of the Directive.[59] Every second year the Member States shall submit a report to the Commission on any derogations applied.[60] (Art 16.)

Every six years the Member States shall submit a report on the implementation of the measures taken under the Directive. Based on these reports the Commission shall prepare and publish a composite report (Art 22).

Protection of species and habitats is an area where the Commission, aided by the Court of Justice, has held the Member States to increasingly strict standards. However, so far this has not managed to bring about a clear reversal of the negative trends for biodiversity. Perhaps the best hope for that lies in the strengthened role of NGOs and the legal remedies available to them for the enforcement of EU nature protection law.[61]

15.4 International Trade in Species of Wild Fauna and Flora

International trade in endangered species has, since the 1970s, been regulated through the Convention on International Trade in Endangered Species of Wild Fauna and Flora, better known as 'CITES'.[62] The Member States are parties to the

[59] Case C-6/04 *Commission v United Kingdom* (n 27), para 113.

[60] On the limited usefulness of these reports see L Krämer 'Monitoring the Application of the Birds and the Habitats Directives' (2013) 10 *Journal for European Environmental & Planning Law* 209–32, 217.

[61] See, eg, Case C-240/09 *Lesoochranárske zoskupenie* ECLI:EU:C:2011:125 and the discussion in section 7.5.2.

[62] Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (3 March 1973) 993 UNTS 243.

Convention and since 2015 the EU has been as well. It was only in 2013, when an amendment to the Convention came into force, that it became possible for a so-called regional economic integration organisation to become a party, but the Union had already for many years implemented the provisions of the Convention as if it was a party. The first piece of EU legislation implementing CITES dates from 1982.[63] Since 1997 CITES has been implemented mainly through Regulation (EC) No 338/97 on the protection of species of wild fauna and flora by regulating trade therein.[64] It is supplemented by, inter alia, a Commission regulation from 2006.[65]

Regulation 338/97 only applies to trade with third countries and does not affect the free movement of goods within the Union. It is based on a treaty provision corresponding to the current article 192(1) TFEU and has four annexes (A through D), three of which roughly correspond to the appendices of CITES (I through III). The Regulation shall apply in compliance with the objectives, principles, and provisions of CITES. However, the Regulation has one annex (Annex D), which lists species not covered by CITES but which are imported into the EU in such numbers as to warrant monitoring. (Art 3.)

There are also some other discrepancies between the CITES appendices and the annexes of the Regulation due to the fact that the EU has decided to regulate some species more strictly than is provided for by CITES and also, in a few cases, because EU Member States have entered reservations against a CITES listing.

CITES regulates trade in endangered species by dividing them into three categories, each listed in its own appendix. Species listed in Appendix I to CITES are all species threatened with extinction which are or may be affected by trade. International trade in specimens of these species shall be prohibited, although exemptions can be made for non-commercial trade. Appendix II contains species which, although not necessarily now threatened with extinction, may become so unless trade in specimens of those species is subject to strict regulation. International trade in specimens of these species may be authorised by the granting of an export permit. The species in Appendix III have been listed at the request of individual CITES Parties which themselves regulate trade in these species and need the cooperation of other Parties to prevent unsustainable or illegal exploitation.

Specimens of the species listed in Annex A or B of the Regulation (largely corresponding to appendix I and II of CITES) may be introduced into the EU only once the necessary checks have been completed and an import permit issued by the designated authority of the Member State of destination has been presented at the border customs office at the point of introduction. The preconditions for issuing an import permit are set out in Article 4 of the Regulation. With respect to species listed in Annexes C and D, an import notification replaces the import permit.

[63] Council Regulation (EEC) No 3626/82 on the implementation in the Community of the Convention on international trade in endangered species of wild fauna and flora [1982] OJ L 384/1.

[64] [1997] OJ L 61/1.

[65] Commission Regulation (EC) No 865/2006 laying down detailed rules concerning the implementation of Council Regulation (EC) No 338/97 on the protection of species of wild fauna and flora by regulating trade therein [2006] OJ L 166/1.

Export or re-export of specimens of the species listed in Annexes A to C also require a permit certificate issued by an authority of the Member State in which the specimens are located. (Art 5.)

Commercial activities involving the species listed in Annex A shall be prohibited. Exemptions may, where certain conditions are met, be granted by a competent authority in the Member State in which the specimens are located on a case-by-case basis. The Commission can also define general derogations from the prohibition. Any movement within the EU of a live specimen of a species listed in Annex A from the location indicated in the import permit requires prior authorisation from an authority of the Member State in which the specimen is located. (Arts 8–9.)

Permits and certificates issued by the competent authorities of the Member States in accordance with the Regulation are valid throughout the EU. But since the Regulation only establishes a minimum level of protection, individual Member States may adopt stricter measures restricting entry of specimens into their territories even if that would be inconsistent with the Regulation. Such stricter measures must be compatible with the rules on free movement of goods within the Union. (Art 11.)

The Commission may amend Annexes A to D and also make certain other amendments in accordance with the regulatory procedures defined in Articles 18 and 19.

The EU has also adopted a few other legal acts relating to international trade in certain animals and products derived from them. These concern whales or other cetacean products,[66] skins of certain seal pups and products derived therefrom,[67] seal products more generally,[68] and pelts and manufactured goods of certain wild animal species originating in countries which catch them with methods which do not meet international humane trapping standards.[69] These pieces of legislation aim to protect populations or individual animals against hunting in general or hunting by means of certain methods. That such rules can be legally problematic, particularly when they are not reflective of international agreements providing for trade restrictions, has been discussed in Chapter 2.

15.5 Invasive Species

In the EU Biodiversity Strategy, adopted in 2011, so-called invasive alien species (IAS) were identified as a significant and growing threat to biodiversity in the EU

[66] Council Regulation (EEC) No 348/81 on common rules for imports of whales or other cetacean products [1981] OJ L 39/1.

[67] Council Directive 83/129/EEC concerning the importation into Member States of skins of certain seal pups and products derived therefrom [1983] OJ L 91/30.

[68] Regulation (EC) No 1007/2009 of the European Parliament and of the Council on trade in seal products [2009] OJ L 286/36.

[69] Council Regulation (EEC) No 3254/91 prohibiting the use of leghold traps in the Community and the introduction into the Community of pelts and manufactured goods of certain wild animal species originating in countries which catch them by means of leghold traps or trapping methods which do not meet international humane trapping standards [1991] OJ L 308/1.

and estimated to cause some €12.5 billion worth of damage each year in the Union. The Commission was therefore tasked with developing a legislative instrument to address the problems posed by IAS.[70] This led, in 2014, to the adoption of Regulation 1143/2014 on the prevention and management of the introduction and spread of IAS.[71]

Among the threats posed by IAS to biodiversity and related ecosystem services that are identified in the Regulation are severe impacts on native species and the structure and functioning of ecosystems through the alteration of habitats, predation, competition, the transmission of diseases, and through genetic effects by hybridisation. Some 12,000 species in the environment of the Union and in other European countries are alien, of which roughly 10 to 15 per cent are estimated to be invasive.[72]

The Regulation sets out rules to prevent, minimise, and mitigate the adverse impact on biodiversity of the introduction and spread within the Union, both intentional and unintentional, of IAS (Art 1). Through the Regulation the EU also intends to meet its obligations relating to IAS under the CBD and the Convention on the Conservation of European Wildlife and Natural Habitats.[73]

The Regulation applies in principle to all IAS, a notion that is defined in several steps. To begin with, 'alien species' are understood as any live specimen of a species, subspecies, or lower taxon of animals, plants, fungi, or micro-organisms introduced outside its natural range. Such a species is 'invasive' when its introduction or spread has been found to threaten or adversely impact upon biodiversity and related ecosystem services. 'Introduction', in turn, is the movement, as a consequence of human intervention, of a species outside its natural range. The natural—that is, without human intervention—movement of species is not covered. Exemptions apply to a number of organisms, either in themselves or when used in specific contexts, that are already regulated under other pieces of EU law.[74] (Arts 2 and 3.)

Since there are numerous IAS, it has been deemed important to give priority to addressing those IAS that are of particular concern to the EU. This is done through the development of a list of invasive species of Union concern, the so-called 'Union list'. The list is adopted by the Commission by means of implementing acts in accordance with a committee procedure. It shall be subject to a comprehensive review every six years but may also be updated between these revisions as appropriate.

An IAS may only be included on the Union list if it meets a number of criteria, including being likely, based on available scientific evidence, to have a significant adverse impact on biodiversity and the related ecosystem services. It may also have an adverse impact on human health or the economy. It must furthermore have been

[70] COM(2011) 244 final (n 5) Target 5 and Action 16 as set out in the Annex.
[71] [2014] OJ L 317/35. [72] Preambular paras 1–3.
[73] ('Bern Convention') (Bern, 9 September 1979) 1284 UNTS 209.
[74] This applies, inter alia, to genetically modified organisms regulated under Directive 2001/18/EC of the European Parliament and of the Council on the deliberate release into the environment of genetically modified organisms and repealing Council Directive 90/220/EEC [2001] OJ L 106/1 and to micro-organisms manufactured or imported for use in plant protection products or biocidal products authorised in accordance with applicable EU law.

demonstrated, by a risk assessment carried out in accordance with the Regulation, that concerted action at Union level is required to prevent its introduction, establishment, or spread and that the inclusion on the Union list is likely to effectively prevent, minimise, or mitigate its adverse impact. Member States may submit, together with the requisite risk assessment, requests for the inclusion of IAS on the Union list. When adopting or updating the Union list, the Commission must have due consideration to the implementation cost for Member States, the cost of inaction, cost-effectiveness, and socio-economic aspects. (Art 4.)

Specific rules apply with respect to the so-called outermost regions, as defined in Article 355 TFEU, including, inter alia, French Guiana, the Azores, Madeira, and the Canary Islands (Art 6).

Once a species has been listed as an IAS of Union concern, numerous activities involving that species must be prohibited. These include bringing the species into the territory of the Union, placing it on the market, releasing it into the environment, and keeping or breeding it, including in contained holding. The Member States must also take all necessary steps to prevent the unintentional introduction or spread of such species. Derogations may be granted through permit systems established by individual Member States. Permits may only be granted subject to specific conditions and only in order to enable research on, or ex situ conservation of, IAS of Union concern. Where the use of products derived from such species is unavoidable to advance human health, Member States may also include scientific production and subsequent medicinal use within their permit system. In exceptional cases and for reasons of compelling public interest, Member States may issue permits allowing establishments to carry out other activities with IAS of Union concern, but that requires an authorisation by the Commission in each case. (Arts 7–9.)

Transitional rules apply, under certain conditions, to non-commercial owners and commercial stocks of species that are being listed as IAS of Union concern (Arts 31 and 32).

The Regulation allows for emergency measures to be taken when a Member State has evidence concerning the presence in, or imminent risk of introduction into its territory of, an IAS which is not included on the Union list but which it has found, on the basis of preliminary scientific evidence, to be likely to meet the criteria for inclusion on that list. The Member State concerned may then impose any of the restrictions that apply to listed IAS. It must also immediately notify the Commission and all other Member States and carry out a risk assessment in accordance with the relevant provisions in the Regulation. If, following the completion of the risk assessment, the Commission does not include the IAS on the Union list, the Member State must repeal its emergency measures. It may, however, include that species on a national list of IAS of Member State concern. With respect to the species on such a list the Member State concerned may apply in its territory various restrictive measures, as appropriate, provided that the measures are compatible with the TFEU and notified to the Commission. (Arts 10 and 12.)

Within eighteen months of the adoption of the Union list, the Member States are required to carry out a comprehensive analysis of the pathways of unintentional introduction and spread of IAS of Union concern at least in their territory and

in their marine waters, and identify the pathways which require priority action (so-called 'priority pathways'). Within three years of the adoption of the Union list, each Member State shall establish and implement one or more action plans to address the priority pathways identified. The Member States must also have a surveillance system of IAS of Union concern, which collects and records data on the occurrence in the environment of IAS.

Since 2 January 2016, Member States have been required to have in place fully functioning structures to carry out the official controls necessary to prevent the intentional introduction into the Union of IAS of Union concern. Reference is made in the Union list to the categories of goods that are to be subject to such controls. (Arts 13–15.)

When complying with their obligations under the Regulation the Member States shall make every effort to ensure close coordination with all Member States concerned. They shall also endeavour to cooperate with third countries as appropriate, including by using existing structures arising from regional or international agreements. (Arts 11 and 22.)

If IAS are to be stopped it is essential to detect them early and take measures to prevent their establishment and further spread. To do this the Member States shall use surveillance systems and official controls to confirm the presence of any specimen of an IAS in the environment before it has become widely spread, that is, so-called 'early detection'. If an IAS of Union concern is detected, the Member State must apply eradication measures in order to achieve the complete and permanent removal of the IAS and inform the Commission and the other Member States. In certain circumstances, including when eradication is technically unfeasible or when a cost–benefit analysis demonstrates that the costs will be exceptionally high and disproportionate to the benefits of eradication, the Member State may decide not to apply eradication measures. The decision must be notified to the Commission, which may decide, according to a committee procedure, to reject the decision. If the Member State is allowed not to implement eradication measures it must instead take effective management measures so that the impact on biodiversity, on the related ecosystem services, and, where applicable, on human health or the economy of the IAS is minimised.

Any IAS of Union concern which have been found to be widely spread on the territory of a Member State must also be subject to effective management measures within eighteen months of the IAS being included on the Union list. The measures shall be proportionate to the impact on the environment and be based on an analysis of costs and benefits. (Arts 2, 17, 18, and 19.)

When an ecosystem has been degraded, damaged, or destroyed by IAS of Union concern, the Member State concerned is to carry out appropriate restoration measures to assist the recovery of that ecosystem unless a cost–benefit analysis demonstrates that the costs of those measures will be high and disproportionate to the benefits of restoration. In accordance with the polluter-pays principle, Member States shall aim to recover the costs of the measures needed to prevent, minimise, or mitigate the adverse impact of IAS, including restoration cost. (Arts 20 and 21.)

Although it follows already from the Regulation being based on Article 192(1) TFEU, there is also a provision explicitly stating that Member States may maintain or lay down more stringent national rules with the aim of preventing the introduction, establishment, and spread of IAS, provided that those measures are compatible with the TFEU and are notified to the Commission (Art 23).

The Member States are required to lay down provisions on effective, proportionate, and dissuasive penalties applicable to infringements of the Regulation and take all the necessary measures to ensure that they are applied (Art 30).

The Regulation also contains provisions on, inter alia, reporting and review, information support system, and public participation (Arts 24–29).

15.6 Other Legal Acts and Strategies Protecting Biological Diversity

Further legal acts related to the protection of species are Directive 1999/22/EC relating to the keeping of wild animals in zoos,[75] which aims to protect wild fauna and to conserve biodiversity by providing for the adoption of measures by Member States for the licensing and inspection of zoos, and Regulation (EC) No 708/2007 concerning use of alien and locally absent species in aquaculture,[76] through which a framework governing aquaculture practices in relation to alien and locally absent species is established.

Also relevant in this context are two regulations focusing on timber imported to the EU, one general and one built around specific agreements with timber-exporting countries. The one of general applicability is Regulation (EU) No 995/2010 laying down the obligations of operators who place timber and timber products on the market ('the Timber Regulation').[77] It prohibits the placing on the market of illegally harvested timber or timber products derived from such timber and requires operators to exercise due diligence, by means of a framework of procedures and measures, when placing timber or timber products on the market. It also introduces a traceability requirement according to which traders must keep records of their suppliers and customers. The more specific act is Regulation (EC) No 2173/2005 on the establishment of a FLEGT licensing scheme for imports of timber into the European Community.[78] It establishes a set of rules for the import of certain timber products for the purposes of implementing the so-called Forest Law Enforcement, Governance and Trade (FLEGT) licensing scheme. The scheme is based on voluntary Partnership Agreements with timber-producing countries and aims to ensure that only timber products which have been produced in accordance with the national legislation of the timber-producing country enter the EU. Timber and timber products covered by valid FLEGT or CITES licences are considered to comply with the requirements of the Timber Regulation.

[75] [1999] OJ L 94/24. [76] [2007] OJ L 168/1. [77] [2010] OJ L 295/23.
[78] [2005] OJ L 347/1.

There is also an EU Forest Strategy, the current version of which was adopted in 2014, which aims to ensure and demonstrate that all forests in the EU are managed according to sustainable forest management principles and that the EU's contribution to promoting sustainable forest management and reducing deforestation at global level is strengthened by 2020.[79]

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