EU ENVIRONMENTAL POLICY

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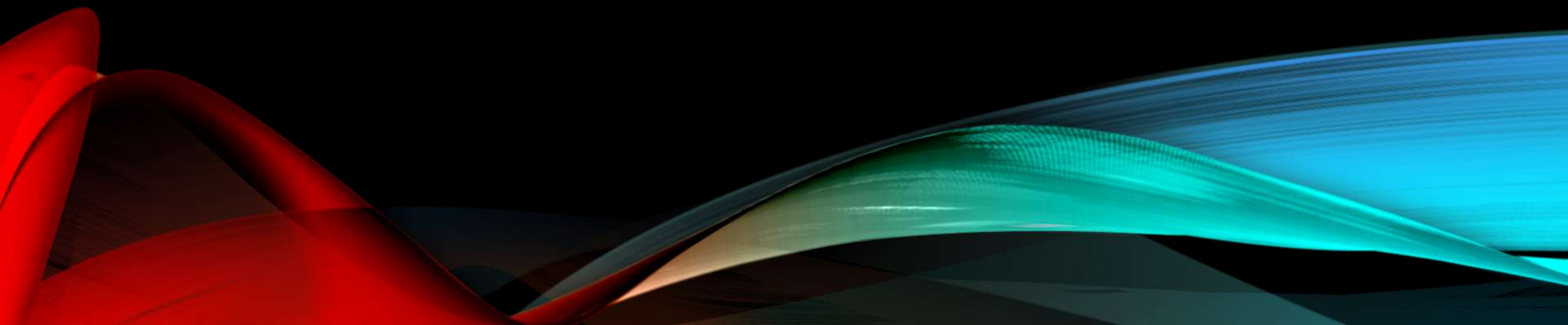
PART 1: INTRODUCTION TO THE ENVIRONMENTAL POLICIES OF THE EUROPEAN UNION



TOPICS

- Part 1: Introduction to the Environmental Policies of the European Union
- Part 2: Emissions and Waste in the EU's Environmental Policy
- Part 3: Water and Climate Change as Concerns for the European Union

SOURCES FOR THIS COURSE

The slides for this course are based on

- David Langlet and Said Mahmoudi, EU Environmental Law and Policy, 1st ed., Oxford University Press, Oxford (2016).

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INTRODUCTION

- Economic roots of European integration
- 1972: 1st UN Conference on Human Environment, Stockholm
  - European Community member states (unsuccessfully) demands better protection for the environment
  - Commission prepares 1st environmental action programme
  - Beginning of EU Environmental Policy

ENVIRONMENT ACTION PROGRAMMES

- Since 1973
- Define basic principles of EU Environmental Policy
- Action to reduce or prevent pollution
- Action to improve environmental quality
- Action in cooperation with international organisations
- 1980s: stronger focus on implementing environment-related directives
- 5th EAP (1993-2000): focus on sustainability
- 6th EAP (2002-2012): first truly comprehensive environmental strategy, focus on climate change, biodiversity, health, quality of life, natural resources, waste
- 7th EAP (2013-2020): "Living well, within the limits of our planet"
  - Vision beyond 2020

7TH EAP VISION FOR THE YEAR 2050

”In 2050, we live well, within the planet’s ecological limits. Our prosperity and healthy environment stem from an innovate, 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.”

OBJECTIVES

Article 191 (1) TFEU

"Union policy on the environment shall contribute to pursuit of the following objectives:

— preserving, protecting and improving the quality of the environment,

— protecting human health,

— 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."

FROM OBJECTIVES TO RULES

- Objectives are only objectives – not concrete obligations
- To gain practical effect, they have to be transformed into concreate measures decided according to the legislative procedures included in Article 192 TFEU.
- The objectives do not determine which specific measures are to be taken by the EU.
- Article 191 TFEU leaves it to the Council to decide which measures are to be adopted.
- The Council (usually together with the Parliament) has the ability to make its own assessment.

AIMS

Article 191 (2) s. 1 TFEU

”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. It 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.”

FLEXIBILITY FOR MEMBER STATES

Article 191 (2) s. 2 TFEU

"[…] harmonisation measures answering environmental protection requirements shall include, where appropriate, a safeguard clause allowing Member States to take provisional measures, for non-economic environmental reasons, subject to a procedure of inspection by the Union.."

GEOGRAPHICAL LIMITS OF EU ENVIRONMENTAL POLICY

- Can the EU take measures which aim at protecting the natural environment outside the EU?
  - Principle: States are not allowed to enforce measures within the jurisdictions of other states.
    - Somewhat more complex situation for mere regulation, e.g. universal jurisdiction in criminal law.

GEOGRAPHICAL LIMITS OF EU ENVIRONMENTAL POLICY

- EU has undertaken numerous free trade obligation.
  - Makes it difficult to limit the import of environmentally sensitive goods from non-member states.
    - WTO rules
- But the EU has adopted a number of legal acts which aim to protect the environment and / or human health outside the EU.
  - Import / export restrictions
    - No direct effect on other states but attempt to influence behavior beyond the borders of the EU
      - Regulation 1007/2009 on trade in seal products
        - WTO Appelate body ruled in 2014 (Canada & Norway / EU) that ban in principle possible but some technical changes were necessary

GEOGRAPHICAL LIMITS OF EU ENVIRONMENTAL POLICY

- Applicability of EU norms in EEZs of member states
  - ECJ Case C-6/04 *Commission v United Kingdom*
    - Alleged failure of the UK to implement the EU Habitat Directive in the EEZ
    - ECJ ruled that the directive had to be applied in the EEZ
      - Because UK has sovereign rights there
        - Therefore also other EU environmental norms are to be applied in the EEZs of member states

GEOGRAPHICAL LIMITS OF EU ENVIRONMENTAL POLICY

- The Environmental Impact Assessment (EIA) Directive is, according to its wording, only applicable in the territories of member states.
  - However, it follows from the Carbon Capture and Geological Storage (CCS) Directive, that the EIA Directive shall apply to CCS in EEZs.
- Directive on the assessment of the effects of certain plants and programmes on the envioronment (SEA Directive) and the Industrial Emissions Directive directly apply to the EEZs.
  - Possibly also the Waste Framework Directive (ECJ, Case C-188/07, *Commune de Mesquer*)

GEOGRAPHICAL LIMITS OF EU ENVIRONMENTAL POLICY

- Applicability of EU environmental norms outside EEZs (i.e., on the high seas of in maritime zones of other states) is far from clear.
  - But possible as long as it happens within the existing framework of the international law of the sea.
    - E.g. flag state competences.

KEY PRINCIPLES

- Preventive action should be taken
- Environmental damage should – as a priority – be rectified at the source
- The polluter should pay
- The requirement of environmental protection must be integrated into the definition and implementation of other EU policies
- Precautionary principle
- Principle of a high level of protection
- Sustainable development

SUSTAINABLE DEVELOPMENT

- Sustainable development is not only a key environmental principle but since the Treaty of Amsterdam one of the basic principles of the European Union.

SUSTAINABLE DEVELOPMENT

Article 3 (3) TEU

"The Union shall establish an internal market. 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. It shall promote scientific and technological advance."

HIGH LEVEL OF PROTECTION

Article 191 (2) s. 1 TFEU

"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. It 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."

INTEGRATION

Article 11 TFEU

"Environmental protection requirements must be integrated into the definition and implementation of the Union's policies and activities, in particular with a view to promoting sustainable development."

SUBSIDIARITY

Article 5 (3) s. 1 TEU

"Under the principle of subsidiarity, in areas which do not fall within its exclusive competence, the Union shall act only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States, either at central level or at regional and local level, but can rather, by reason of the scale or effects of the proposed action, be better achieved at Union level."

NO DIRECT EFFECT OF THE PRINCIPLES

- The principles contained in Article 191 (2) TFEU do not have direct effect.
- The principles, however, do play a role in the interpretation of legal acts of the European Union in the context of the natural environment.

SUSTAINABLE DEVELOPMENT

- The notion of sustainable development has had an obvious effect on the EU.
  - But its concrete legal and political impacts are more difficult to measure.
- Sustainable development was the core concept of the 5th Envrionment Action Programme.
- The European Council defines sustainable development as meeting "the needs of the present generation without compromising those of future generations".

SUBSIDIARITY

- The question whether the EU should act is a question of the distribution of competences between the EU and the member states.
- There are three possible scenarios:

SUBSIDIARITY SCENARIO 1

- The Member states have transferred competence in a particular area to the EU
- and the EU has the Exclusive competence
- Example:
  - Conservation of marine biological resources under the common fisheries policy (CFP), Article 3 TFEU

SUBSIDIARITY SCENARIO 2

- The member states have not transferred any power and the EU therefore lacks all power.
- This option is less relevant today because the competences of the EU have been expanded significantly.
- Example:
  - Family law (generally under the exclusive competence of the member states)
    - But of course many EU norms have implications for family life

SUBSIDIARITY SCENARIO 3

- Member states have transferred a part of their competence.
- Both the EU and the member states have some competence.
  - Example: protection of the environment, Article 4 TFEU

SUBSIDIARITY

- If the EU has only some (= not exclusive) competence, the second question to ask is if it is appropriate for the EU, rather than the member states, to act.
- Subsidiarity principle
  - Legal history origins: Single European Act 1987, initially only applicable to environmental measures
  - Since the Treaty of Maastricht upgraded to a general principle of EC (EU) law

SUBSIDIARITY

- Now enshrined in Article 5 (3) TEU (for details see protocol additional to the Treaty of Lisbon):
  - "*Under the principle of subsidiarity, in areas which do not fall within its exclusive competence, the Union shall act only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States, either at central level or at regional and local level, but can rather, by reason of the scale or effects of the proposed action, be better achieved at Union level.*"

SUBSIDIARITY

- Environmental legal acts of the EU normally fulfill the subsidiarity principle.
  - Many environmental problems are by their nature transboundary, justifying the involvement of the European Union.
  - Many measures aimed at protecting the environment can impact the internal market and competition among member states, also a reason for the EU to act.

PROPORTIONALITY

Article 5 (4) s. 1 TEU

”Under the principle of proportionality, the content and form of Union action shall not exceed what is necessary to achieve the objectives of the Treaties.”

SUBSIDIARITY AND PROPORTIONALITY IN PRACTICE

Article 5 (3) s. 2-3 TEU

”The institutions of the Union shall apply the principle of subsidiarity as laid down in the Protocol on the application of the principles of subsidiarity and proportionality. National Parliaments ensure compliance with the principle of subsidiarity in accordance with the procedure set out in that Protocol.”

SUBSIDIARITY AND PROPORTIONALITY IN PRACTICE

Article 5 (4) s. 2 TEU

”The institutions of the Union shall apply the principle of proportionality as laid down in the Protocol on the application of the principles of subsidiarity and proportionality.”

HIGH LEVEL OF PROTECTION

Article 3 (3) s. 1-3 TEU

”The Union shall establish an internal market. 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**. It shall promote scientific and technological advance.”

HIGH LEVEL OF PROTECTION

Article 114 (1) s. 2 TFEU

"The European Parliament and the Council shall, acting in accordance with the ordinary legislative procedure and after consulting the Economic and Social Committee, adopt the measures for the **approximation of the provisions laid down by law, regulation or administrative action in Member States which have as their object the establishment and functioning of the internal market**."

HIGH LEVEL OF PROTECTION

Article 114 (3) TFEU

"The Commission, in its proposals envisaged in paragraph 1 concerning health, safety, environmental protection and consumer protection, will **take as a base a high level of protection, taking account in particular of any new development based on scientific facts**. Within their respective powers, the European Parliament and the Council will also seek to achieve this objective."

HIGH LEVEL OF PROTECTION

Article 191 (1) TFEU

”1. Union policy on the environment shall contribute to pursuit of the following objectives:

— preserving, protecting and improving the quality of the environment,

— protecting human health,

— 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.”

HIGH LEVEL OF PROTECTION

Article 191 (2) TFEU

"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**. It 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. In this context, harmonisation measures answering environmental protection requirements shal include, where appropriate, a safeguard clause allowing Member States to take provisiona measures, for non-economic environmental reasons, subject to a procedure of inspection by the Union."

HIGH LEVEL OF PROTECTION

Article 191 (3) TFEU

"In preparing its policy on the environment, the Union shall take account of:

— available **scientific and technical data**,

— environmental conditions in the various regions of the Union,

— the potential benefits and costs of action or lack of action,

— the economic and social development of the Union as a whole and the balanced development of

its regions."

HIGH LEVEL OF PROTECTION

Article 191 (4) TFEU

”Within their respective spheres of competence, the Union and the Member States shall cooperate with third countries and with the competent international organisations. The arrangements for Union cooperation may be the subject of agreements between the Union and the third parties concerned. The previous subparagraph shall be without prejudice to Member States' competence to negotiate in international bodies and to conclude international agreements.”

HIGH LEVEL OF PROTECTION

- In practice, the principle of the high level of protection means that the EU legislator has a wide degree of discretion when deciding how to achieve the desired high level of protection of the environment.
  - Member states which want to implement tougher measures than the EU are allowed to do so.

HIGH LEVEL OF PROTECTION

- Scientific knowledge has to be taken into account.
  - This includes in particular scientific assessments of risks.
    - Risk is a challenging issue from a legislative perspective because usually lawmakers have only imperfect information on risks.
      - This is why science matters for lawmaking.

PRECAUTION

- Usually law is reactive.
- Environmental law is based to a large degree on the precautionary principle.
- Today, the principle is used beyond the limits of environmental law, for example in the Common Agricultural Policy (CAP).
- The precautionary principle not only calls for the prevention of harm (more on that in a moment) but has to be seen as part of a wider structured approach to risk analysis which includes risk assessment, risk management and risk communication.

PRECAUTION

Article 191 (2) TFEU

"**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. **It 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.

In this context, harmonisation measures answering environmental protection requirements shall include, where appropriate, a safeguard clause allowing Member States to take provisional measures, for non-economic environmental reasons, subject to a procedure of inspection by the Union."

THE PRECAUTIONARY PRINCIPLE IN PRACTICE

- To apply the precautionary principle correctly, the following steps are necessary:
  - "first, identification of the potentially negative consequences for [the protected good, such as human health or the natural environment] of the proposed [measure], and,
  - secondly, a comprehensive assessment of the risk to [the protected good in question] based on the most reliable scientific data available and the most recent results of international research."

(ECJ, Case C-333/08, *Commission v France*)

- Incorrect application of the precautionary principle can result in the annulment or the setting aside of a legal act and it can affect the implementation of EU law on the domestic level.

PREVENTIVE ACTION

Article 191 (2) TFEU

"**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. It **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.

In this context, harmonisation measures answering environmental protection requirements shall include, where appropriate, a safeguard clause allowing Member States to take provisional measures, for non-economic environmental reasons, subject to a procedure of inspection by the Union."

PREVENTIVE ACTION IN PRACTICE

- Establish emission limits
- Impose licensing requirements
- Introduce economic instruments
- Development of rules on e.g. environmental impact assessments

- Legal implications of the principle are not clear.
- Some legal acts refer expressely to the principle of preventive action.
  - E.g. waste-related rules of EU law require the negative impacts of the generation and the management of waste shall be prevented
  - Industrial Emissions Directive requires that pollution shall be avoided through appropriate preventive measures

PROXIMITY

- The proximity principle demands that environmental damage should primarily be remedied at the source.
  - Important especially in the context of waste.
  - One of the bases of the EU's environmental policy under Article 191 (2) TFEU:

Article 191 (2) s. 1 TFEU

"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. It 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."

POLLUTER-PAYS PRINCIPLE

Article 191 (2) s. 1 TFEU

"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. It 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**."

POLLUTER-PAYS PRINCIPLE

- 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.
- Practical implementation:
  - fees
  - taxes
  - liability schemes
  - requirement that best available technology is used
- E.g. Environmental Liability Directive

POLLUTER-PAYS PRINCIPLE IN PRACTICE

- In practice, both the EU and the member staets have often ignored the principle.
- Government subsidies and EU funding have been used to ensure that environmental standards are met.

- But: the principle can influence the interpretation of rules which call for costs to be borne by polluters.
  - E.g. Case C-188/07 regarding the costs disposal of waste, which are to be paid in principle by the waste holder but by the producer of waste in cases in which third parties (the waste holders) are involuntarily burdened with the waste.
    - E.g. accidental oil spill by somebody else on your land.
      - Current law: Directive 2008/98/EC on costs of waste management, see also Case C-254/08.

INTEGRATION

- Enviornmental protection requirements shall be a component of (=shall be integrated into) the EU's other policies.
- Horizontal claose.
- Today the integration requirement is an independent general principle of EU law.

INTEGRATION

Article 11 TFEU

"Environmental protection requirements must be integrated into the definition and implementation of the Union's policies and activities, in particular with a view to promoting sustainable development."

SINCERE COOPERATION

Article 4 (3) TEU

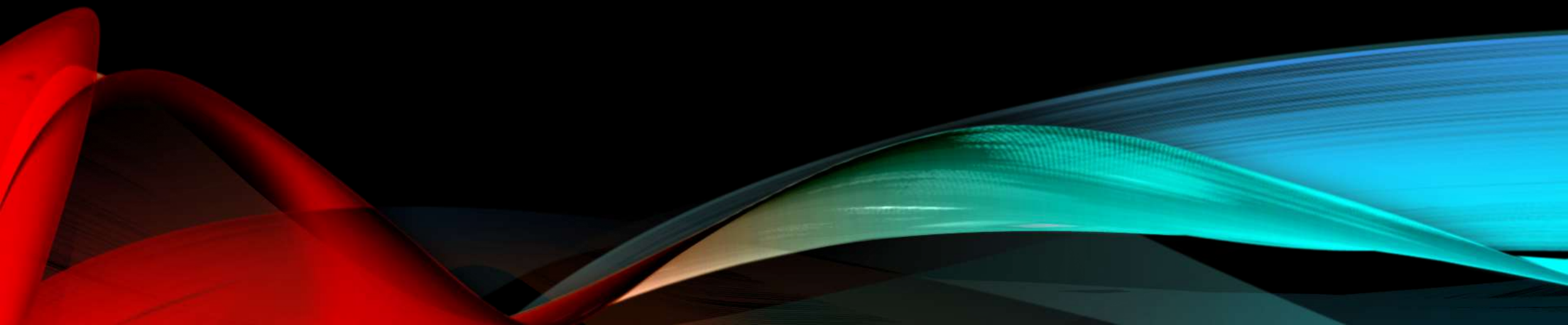
"Pursuant to the principle of sincere cooperation, the Union and the Member States shall, in full mutual respect, assist each other in carrying out tasks which flow from the Treaties. The Member States shall take any appropriate measure, general or particular, to ensure fulfilment of the obligations arising out of the Treaties or resulting from the acts of the institutions of the Union. The Member States shall facilitate the achievement of the Union's tasks and refrain from any measure which could jeopardise the attainment of the Union's objectives."

EQUAL TREATMENT AND LEGAL CERTAINTY

Article 18 s. 1 TFEU

”Within the scope of application of the Treaties, and without prejudice to any special provisions contained therein, any discrimination on grounds of nationality shall be prohibited.”

PART 2: EMISSIONS AND WASTE IN THE EU'S ENVIRONMENTAL POLICY



EMISSIONS

- Emissions are unavoidable in industrial societies.
- The question is, how emissions can be reduced and managed.
- The move towards renewable energies is only the tip of the iceberg because many emissions result from industrial production.
- First integrated approach to emissions: 1996 Directive 96/61/EC on Integrated Pollution Prevention and Control (IPPC)
- Industrial Emissions Directive (IED), based on Article 192 (1) TFEU

EMISSIONS

Article 192 (1) TFEU

"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."

EMISSIONS

Article 191 (1) TFEU

"Union policy on the environment shall contribute to pursuit of the following objectives:

— preserving, protecting and improving the quality of the environment,

— protecting human health,

— 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."

EMISSIONS

- Industrial Emissions Directive (IED) is basically an expression of the aforementioned general principles
- Focus on the use of best available techniques (BATs)
- Technical implementation: permit requirements
  - Detailed rules in the Industrial Emissions Directive
    - When a permit is issued it must include all measures necessary for compliance with the general principles and the environmental quality standards (EQSs) found in the IED.
  - Rules for site closure and remediation.
    - Becomin more important as landfills rapidly become a thing of the past because the focus regarding waste treatment has shifted towards recycling / circular economy or burning for energy
  - Installations must be covered by an environmental inspection plan at national, regional or local level.

AIR QUALITY

- EU is a party to the Convention on Long-Range Transboundary Air Pollution (CLRTAP)
  - Forest dieback (Суховершинность / Waldsterben) in Germany and the United States in the early 1980s
- And to the Vienna Convention for the Protection of the Ozone Layer
  - Holes in the Ozone Layer above the poles discovered in the 1980s
    - See also Regulation (EC) No 1005/2009 on substances that deplete the ozone layer
      - Cholofluorocarbons (CFS) (e.g. in sprays or old refridgerators)
      - Hydrofluorocarbons (HCFCs)
- 1996 Air Quality Framework Directive

AIR QUALITY

- Directive 2001/81/EC: set national ceilings on the emissions of major air pollutants
- Directive 2000/50/EC on ambient air quality and cleaner air for Europe
- 2005 Thematic Strategy on Air Pollution
- 2013 Clean Air Policy Package
  - Communication by the Commission "A Clean Air Programme for Europe"
  - Aim: improve air quality standards in the EU, achieve new policy targets by 2030
  - Substantial reduction of air pollution in all member states

AIR QUALITY

- Practical aspects:
  - Vehicles, e.g. cars
    - Connection between air and noise pollution near big streets / in urban areas
    - Authorities can deny permits if emissions are too high, e.g. Euro 6 emissions limit
      - Local implementation: cities can ban cars which do not fulfill certain emission criteria

NOISE

- Noise is also a significant health issue, especially in densely populated areas.
- EU regulatory action
- Shared characteristics with air pollution
  - E.g. substances / sound spread through air
- But noise is a more localized phenomenon
- Examples
  - Industry
  - Vehicles / roads

WASTE

- 2016: 5 tons of waste per EU inhabitant
  - Recycling rate: 37.8 %
- Today, Europe is quickly moving towards becoming a circular economy and in many countries landfills are becoming a thing of the past.
  - 2015 The Circular Economy Package
    - Action Plan "Closing the Loop – An EU Action Plan for the Circular Economy"
      - Goal = sustainable low-carbon economy
- The recycling rate should be up to 50 % by 2020.
- Waste has long been a concern in EU law. First rules created by the EEC in 1975.

WASTE

- 7th Environmental Action Programme = ”Living well, within the limits of our planet”
  - Waste prevention
  - Recycling
  - Reuse
  - Phasing out landfill
  - Incineration of non-recycleable waste for energy generation (with adequate filters)

FRAMEWORK DIRECTIVE ON WASTE (FDW)

- FDW = core of the EU legal regime on waste
- First FDW = Directive 75/442/EEC
  - Waste = any substance or object which the holder disposes of or is required to dispose of pursuant to national law
- 1991 changed definition of waste
  - Waste = any substance or object which the holder discards or intends or is required to discard
- Amendments were put into a coherent form in Directive 2006/12/EC

FRAMEWORK DIRECTIVE ON WASTE (FDW)

- ”New” FDW = Directive 2008/98/EC
  - Based on Article 192 (1) TFEU
  - Aims
    - 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 or resource use and improving the efficience of such use

FRAMEWORK DIRECTIVE ON WASTE (FDW)

- ”Definition of waste
  - as before
    - Waste = any substance or object which the holder discards or intends or is required to discard
  - Not included in the FDW
    - atmospheric emissions
    - Unexcavated contaminated soil
    - Radioactive waste
    - Agricultural and forestry waste
    - Waste waters
    - Mining industry waste

FRAMEWORK DIRECTIVE ON WASTE (FDW)

- 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:
  1. Prevention
  2. Preparing for reuse, recycling or other recovery
     - Including energy recovery (by burning)
  3. Disposal

FRAMEWORK DIRECTIVE ON WASTE (FDW)

- Waste management plans
  - Member states must create waste management plans
    - Analyse the current waste management situation
    - Measures to be taken to improve the situation
- Waste prevention
  - Member states must also set up 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.
- 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.
- Member states shall furthermore take the necessary measures to prohibit the abandonment, dumping or uncontrolled management of waste.

WASTE TRANSPORT

- Regulation (EEC) No. 259/93 on the supervision and control of shipments of waste within, into and out of the EC.
- Replaced by Regulation (EC) No. 1013/2006.
  - Establishes procedures and control regimes for the shipment of waste.
    - Extensive and complex
    - Differentiation between different types of wasts, origins etc.
  - Protect against negative effects of waste
    - Case study: electronics waste exported to Africa

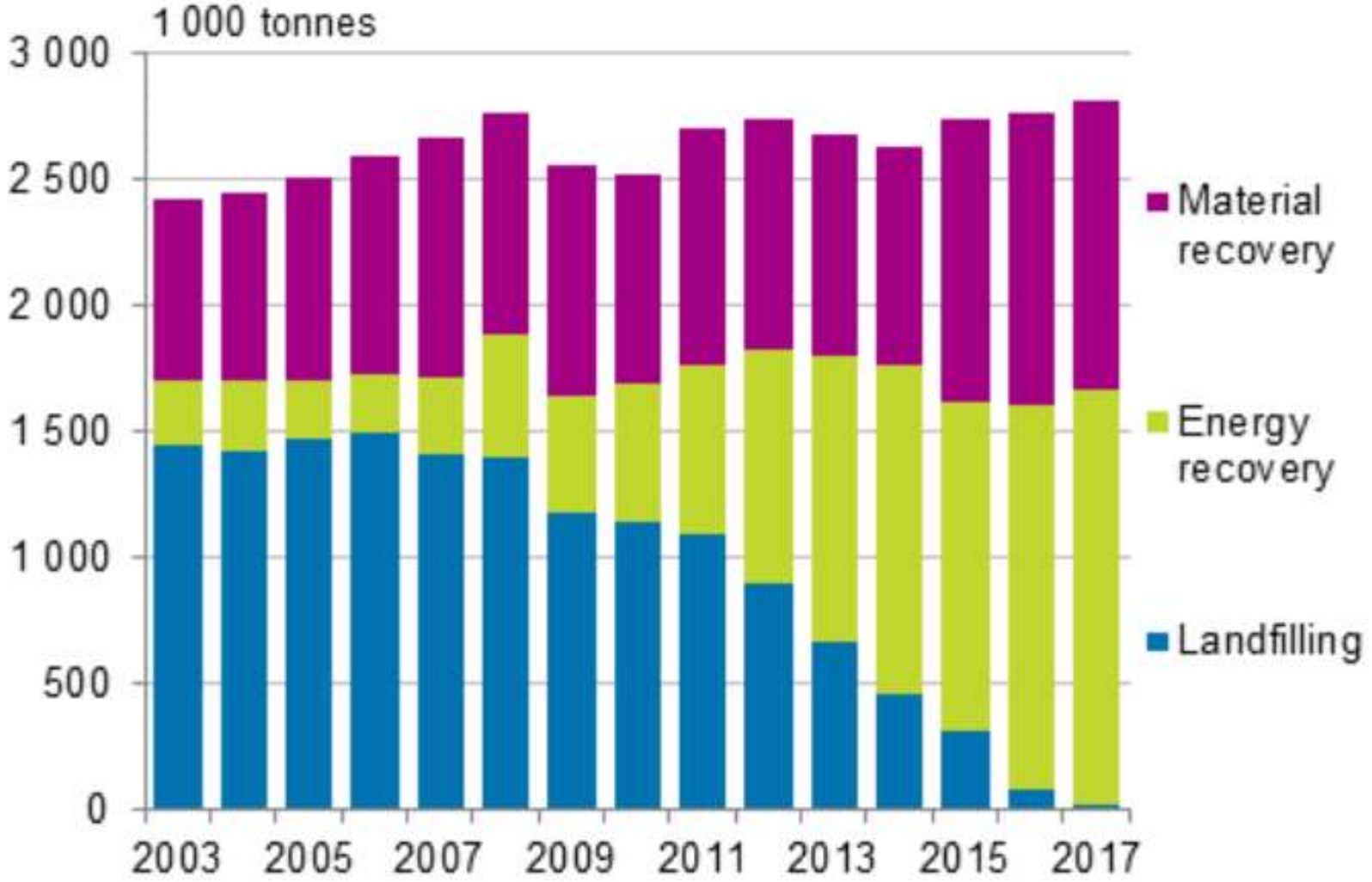
THE END OF LANDFILLS

- Landfills have long been the standard way to deal with waste
  - Dangerous for the natural environment and human health
    - Surface water
    - Groundwater
    - Soil
    - Air
    - Greenhouse gas emission
  - Contrary to the concept of a circular economy
- Directive 1999/31/EC on the landfill of waste aims to provide for measures, procedures and guidance to prevent or reduce as far as possible negative effects on the environment from the use of landfills.

THE END OF LANDFILLS

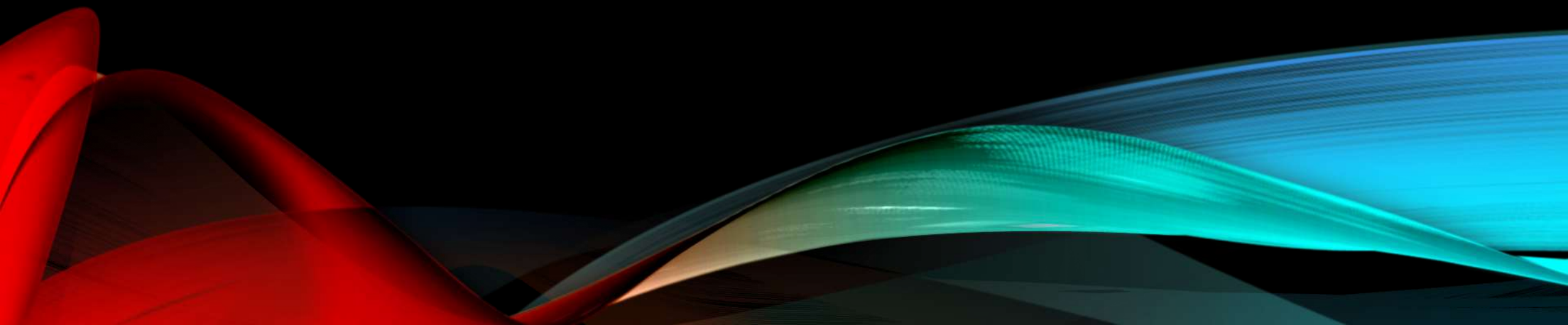
- EU member states can go beyond the requirements of EU environmental law.
  - *De facto*, many EU member states are ending the use of landfills.
    - E.g. Germany:
      - 2006: approx. 2000 landfills
      - 2016: 1108 landfills
      - 2025: approx. 600 landfills
  - But in 2016, 45.5 % of waste was still landfilled.
    - Rapid move towards a circular economy in the last few years

THE END OF LANDFILLS



Source:
Statistics Finland

PART 3: WATER AND CLIMATE CHANGE AS CONCERNS FOR THE EUROPEAN UNION



WATER

- Water is essential for life.
  - All types of pollutants eventually reach water.
- The water environment has long been the object of regulation.
- Comprehensive and cohesive approach.
  - By now, the EU regulation of the water environment is fairly detailed.
    - 2000 Water Framework Directive
    - Many other legal acts are also relevant for the protection of water quality.
      - Considerable amount of EU law dealing with environmental and safet aspects of maritime transport.

WATER

- Water supports life. It is a crucial resource for humanity, generating and sustaining economic growth and prosperity. It is also at the core of natural ecosystems and climate regulation.
- Europe's water is under pressure. Recent figures show that 20% of surface water is at serious risk from pollution; 60% of European cities over-exploit their groundwater resources; 50% of wetlands are endangered. Demand for water is growing all the time.
- Three-quarters of Europeans get their supply from groundwater, locked in the Earth.
- Nearly half the EU population lives in 'water-stressed' countries, where the abstraction of water from freshwater sources is too high.

WATER

- Europe's water is under pressure
  - Everyone needs water – and not just for drinking. We depend on our rivers, lakes, coastal and marine waters, as well as groundwaters, in many ways. Society uses water to generate and sustain economic growth and prosperity, through activities such as farming, commercial fishing,energy production, manufacturing, transport and tourism. Water is also in demand for recreational activities, and forms a key element in the beauty of natural landscapes.
  - Water is at the core of natural ecosystems, and climate regulation. But the pattern of supply is particularly vulnerable to climate change. Scientists warn of increased risk of both droughts and floods in the coming decades. Demand for water is growing everywhere – in the house and garden, for industry, agriculture and irrigation, leisure andtourism – putting a strain on available supplies.

WATER

- At the same time, threats to water quality come from pollution and physical changes to water courses, such as new dams. Damage is caused by households, industry and agriculture, through urban developments, flood defences, power generation, use of fertilisers and pesticides, navigation, recreation, wastewater discharge, coastal defences, freshwater fishing, mining and forestry.
- Although humanity has long realised its dependence on water, we in Europe are now also becoming more and more aware that the supply is not infinite, and that we need to value it accordingly. Water must be managed and protected. It is not merely a consumer product, but a precious natural resource, vital to future generations as well as our own. = sustainability

WATER

- EU action is necessary because river basins and pollution cross borders. The river basin approach is the best way to manage water.
- Rivers do not stop at national frontiers – they fl ow on through different countries to reach the sea. All EU Member States apart from islands like Cyprus and Malta share waters with neighbouring countries. A river basin or a catchment covers the entire river system, from the sources of small tributaries to the estuary, including its groundwater. The EU and the Member States have divided the river basins and associated coastal areas into 110 river basin districts, 40 of which are international and cross borders, covering about 60% of EU territory.

WATER

- Isolated measures to improve water quality cannot be successful without taking account of what happens upstream and downstream. Integrated river basin management adopts a holistic approach to protecting the whole body of water, its source, tributaries, delta and river mouth, through a coordinated strategy involving all the interested parties in decision-making.
- The river basin approach is the best way to manage water.
  - This is the thinking behind the Water Framework Directive.
  - Member States have had to draw up river basin management plans (RBMPs) to safeguard each one of the 110 river basin districts.
  - Public participation is a fundamental principle, so European citizens are playing an influential role in planning and implementing the WFD measures.

WATER

- Waters must achieve good ecological and chemical status, to protect human health, water supply, natural ecosystems and biodiversity-
- The definition of ecological status looks at the abundance of aquatic flora and fish fauna, the availability of nutrients, and aspects like salinity, temperature and pollution by chemical pollutants. Morphological features, such as quantity, water fl ow, water depths and structures of the river beds, are also taken into account.
- The WFD classification scheme for surface water ecological status includes 5 categories:
  - High = no or very low human pressure
  - Good = only a slight deviation from high status
  - Moderate = only a moderate deviation from high status
  - Poor
  - bad.

WATER

- To define good chemical status, environmental quality standards have been established for 33 new and eight previously regulated chemical pollutants of high concern across the EU.
- The WFD is backed up by other EU legislation such as
  - the REACH regulation on chemicals and
  - the Directive for Integrated Pollution and Prevention Control (IPPC) for industrial installations.

WATER

- The rules for groundwater are slightly different and good chemical and quantitative status is the objective.
  - Member States must use geological data to identify distinct volumes of water in underground aquifers, and European law limits abstraction to a portion of the annual recharge.
  - Groundwater should not be polluted at all
    - – any pollution must be detected and stopped.

WATER FRAMEWORK DIRECTIVE (WFD)

- Directive 2000/60/EC
- Comprehensive legal act
  - Repeals a number of earlier legal acts
- Reflects a modern approach to environmental protection
  - The WFD takes the complexity and the functioning of ecosystems as its point of departure.
    - Cf. Ecosystem approch in international environmental law, especially in international marine environmental law
      - More effective than a strict geographical / zonal approach.
      - Requires more scientific knowledge to be provided to lawmakers during the drafting process of rules.

WATER FRAMEWORK DIRECTIVE (WFD)

- The WFD is a framework for EU water policy and is complemented by other legislation regulating specific aspects of water use:
  - The Groundwater Directive (2006)
  - The Environmental Quality Standards Directive (2008)
  - Two Commission Decisions (2005 and 2008), on ecological status, established a register of almost 1,500 sites included in an intercalibration exercise to allow for comparison of diff erent countries' standards, and published the results.

WATER FRAMEWORK DIRECTIVE (WFD)

- Previous and related legislation includes:
  - The Urban Wastewater Directive (1991)
  - The Nitrates Directive (1991)
  - The new Bathing Water Directive (2006)
  - The Drinking Water Directive (1998)

WATER FRAMEWORK DIRECTIVE (WFD)

- More recent related legislation expanding the scope of integrated water management:
  - The Floods Directive (2007)
  - The Marine Strategy Framework Directive (2008)

WATER FRAMEWORK DIRECTIVE (WFD)

- WFD establishes a framework for the protection of
  - Inland surface waters
    - Inland waters (rivers, lakes…)
  - Transitional waters
    - bodies of surface water in the vicinity of river mouthe which are partly saline in character as a result of their proximity to coastal waters but which are substantially influenced by freshwater flows
  - Coastal waters
    - the surface water on the landward side of a line, every point of which is at a distance of 1 nautical mile on the seaward side from the nearest point of the baseline from which the breadth of territorial waters etc. Is measured in accordance with the international law of the sea, extending where appropriate up to the outer limit of transitional waters
  - Ground water

WATER FRAMEWORK DIRECTIVE (WFD)

- Public participation is essential for the protection of water
  - Under the WFD, Member States had to hold extensive consultations with the public and interested parties to identify first the problems, and then the solutions, to be included in river basin management plans.
  - This meant a comprehensive consultation process, which had to be launched by the end of 2006, with a consultation on significant water management issues in 2007, and a broad consultation lasting at least six months on draft river basin management plans in 2008.

WATER FRAMEWORK DIRECTIVE (WFD)

- Public support and involvement is a precondition for the protection of waters, and for the identification of both the problems and the most appropriate measures to solve them, including their costs.
- Without popular backing, regulatory measures will not succeed.
- European citizens have a key role to play in implementation of the WFD, and in helping governments to balance the social, environmental and economic questions to be taken into account.

WATER FRAMEWORK DIRECTIVE (WFD)

- River basin management plans are the key tools for implementing the WFD. They are drawn up after extensive public consultation, and are valid for a six-year period.
- The Directive is implemented through six-year recurring cycles.
- By 2006, countries had to launch water monitoring networks.
- The Commission checks each step of the implementation of the Directive.
  - Regular reports.

WATER FRAMEWORK DIRECTIVE (WFD)

- Water management is linked to many policies: integration is the only way forward for sustainable water Water is involved in a huge range of human activities, and therefore in the policies applied to regulate them.
- For example:
  - Water is vital for agriculture, farming and livestock. Since 1985, the area of irrigated land in southern Europe has gone up by 20%. Agriculture is the main consumer of water.
  - Decisions about land-use and development are influenced by the availability of water resources and facilities for wastewater disposal.

WATER FRAMEWORK DIRECTIVE (WFD)

- Energy generation uses water for cooling and other purposes. Much of it is returned to water courses after use.
- Industry uses water for the manufacturing processes, while many other sectors of the economy, such as tourism, impact on water resources.
- Water is indispensable for healthy ecosystems, which themselves underpin our quality of life. It is not only a provisioning service – a basic material – but also plays a part in the regulating services that govern climate and weather and keep our planet functioning. For example, wetlands provide services such as water purification and carbon absorption, which in economic terms are worth billions of euro.

- Therefore, good water management has to be integrated into all these areas, while the WFD takes account of all aspects of water use and consumption.

WATER: OTHER CONCERNS

- Ship-based pollution
- Maritime spatial planning
- Natural resource extraction (oil, gas, mining) and pollution of seas and rivers
  - Need for international cooperation
    - Case study: Tornio river mines
- Hazardous substances
- Urban wastewater treatment
- Pollution by nitrates (fertilizers)
  - Eutrophication of the Baltic Sea
- Water for human consumption
- Floods

WATER FRAMEWORK DIRECTIVE (WFD)

- A changing environment creates challenges for the future, including climate change, floods and drought
- Since 2000, new factors, such as accelerating climate change and the economic crisis, have come into play. In the coming years, climate change will pose a major challenge for water management across the EU. It is likely to bring:
  - Lower rainfall and higher summer temperatures in the south, putting stress on scarce
  - Floods are already becoming increasingly frequent: since 1990, 259 major river fl oods have been reported, 165 of them since 2000. The 2007 Floods Directive adopts a new, proactive approach, requiring Member States to prepare preliminary fl ood risk assessments for all river basin districts by 2011, followed up in 2013 by flood hazard maps. By 2015, Member States should have flood risk management plans, ready to link into the next cycle of RBMPs (2016-2021).
- In the view of this, public involvement will be crucial to meet the goals of the WFD as well as the Floods Directive.
  - Yet large numbers of Europeans are still unaware of their right to have a say on the future of water. It is important to communicate that every effort makes a difference.

CLIMATE CHANGE

- Climate change is an important global issue. Without action to reduce global greenhouse gas emissions, global warming is likely to exceed 2°C above pre-industrialised levels, and could even be as much as 5°C by the end of the century. This would have a huge impact on the world's landscape and sea levels.
- Action to tackle climate change and cut greenhouse gas emissions is therefore a priority for the EU. In particular, EU leaders have committed to transforming Europe into a highly energy-efficient, low carbon economy. The EU has also set itself the target of reducing greenhouse gas emissions by 80-95% by 2050 compared to 1990 levels.

CLIMATE CHANGE

- The EU's first package of climate and energy measures was adopted in 2008 and set targets for 2020. The EU is making good progress towards these targets, but to provide more certainty for investors, an integrated framework is needed to cover up to 2030. The EU has therefore endorsed the 2030 climate and energy framework, which outlines a number of key targets and policy measures for the 2020-2030 period.
  - 20-20-20 targets
    - The EU's first package of climate and energy measures set three key objectives for 2020:
      - a 20% reduction in greenhouse gas emissions
      - increasing the share of renewable energy to 20%
      - making a 20% improvement in energy efficiency

CLIMATE CHANGE

- 2030 climate and energy framework
  - The 2030 climate and energy framework sets out a policy framework for EU climate and energy policies in the 2020-2030 period. It contains a number of measures and targets to make the EU's economy and energy system more competitive, secure and sustainable. The framework also aims to encourage investment in green technologies, which would help create jobs and strengthen Europe's competitiveness.

CLIMATE CHANGE

- EU Emission Trading Scheme (ETS)
  - The EU's emissions trading scheme (EU ETS) was set up to promote the reduction of greenhouse gas emissions in a cost-effective and economically efficient way. It restricts the volume of greenhouse gases that can be emitted by certain industrial sectors.
  - Emission allowances are capped at a level set by the EU, and companies either receive or buy individual allowances.

CLIMATE CHANGE

- The economic crisis has lowered demand for these allowances, which has contributed to the build-up of a large market surplus. To address this, the Council and the European Parliament recently adopted a decision to create a market stability reserve for the EU ETS.
- The market stability reserve aims to make the scheme more resilient to imbalances between supply and demand of emission allowances. It was be established in 2018 and operates since 1 January 2019.

CLIMATE CHANGE

- The Commission has also presented a proposal for a broad review of the EU ETS.
- The aim is to ensure it remains the most efficient and cost-effective way to cut the EU's emissions during the next decade. The proposal is also the first concrete legislative step towards implementing the EU's commitment to reducing greenhouse gas emissions by at least 40% domestically by 2030.

CLIMATE CHANGE

- The EU and its 28 member states are signatories to both the UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol and the Paris climate change agreement.

THANK YOU FOR YOUR ATTENTION

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