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The EU Environmental Implementation Review 2019
Country Report - DENMARK

Accompanying the document

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions

Environmental Implementation Review 2019:
A Europe that protects its citizens and enhances their quality of life

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Executive summary

Denmark and the Environmental Implementation Review (EIR)

In the 2017 EIR, the main challenges identified for the implementation of EU environmental policy and law in Denmark were:

- **the need to reduce pressures on nature from intensive agriculture**, including the use of pesticides and nutrients;
- **the need to improve air quality**, especially in densely populated areas.

Since the 2017 EIR, Denmark has not organised an EIR national dialogue that would have made it possible to address the above challenges. In 2017, the Commission launched a new tool to promote peer-to-peer learning between environmental authorities. The tool is called TAIEX-EIR P2P (short for 'Technical Assistance and Information Exchange – Environmental Information Report – Peer-to-Peer). In 2018, Denmark has participated in several peer-to-peer events organised through this tool. The events were organised to exchange knowledge and experience on waste management, implementation of the EU Timber Regulation, and reducing emissions from domestic heating.

Progress on meeting challenges since the 2017 EIR

The 2019 EIR shows that environmental policy implementation in Denmark remains at a high standard.

For **pressures on nature from intensive agriculture**, the 2019 EIR shows that Denmark is changing its legislation implementing the Nitrates Directive. The revised legislation moves implementation of this Directive towards a more targeted system. Agricultural pressures and existing water quality issues mean that Denmark must ensure that these changes are accompanied by: (i) clear environmental objectives and targets, and (ii) effective enforcement mechanisms. These objectives, targets and enforcement mechanisms must ensure the necessary and timely reduction in nutrient pollution in Danish waters and in the Baltic Sea. Encouragingly, there have been recent reports of improvements in the status of species and habitats that were previously affected by nutrient pollution.

For **air quality**, the emission of several air pollutants has decreased significantly in Denmark since the 2017 EIR. Also emissions of fine particulate matter fell between 2000 and 2016. Despite these emission reductions, Denmark must make additional efforts to achieve the emission reduction commitments for the period 2020 to 2029 and for any year from 2030. Although in Denmark the latest data is encouraging with no exceedences reported in 2017, air quality in Denmark continues to give cause for concern, especially in certain urban areas, so much that the Commission has instituted infringement procedures against Denmark among other Member States. The Danish Government launched a clean air package in October 2018 to reduce air pollution in larger cities and phase-out diesel and gasoline vehicles, and to meet the reduction targets under the NEC directive.

On **waste prevention**, Denmark has taken appropriate steps to improve waste management and implement the current European waste targets. However, this limited progress shows that more effort will be required to ensure compliance with the recycling targets for the post-2020 period. In particular, this will require action to reduce the incineration (with energy recovery) of municipal waste.

A strong driver of **eco-innovation** in Danish exports has been green-energy technology and services. These exports have been promoted by Denmark's strong export-financing support. The government also provides other forms of assistance for the internationalisation of innovation and business.

Examples of good practice

- On **urban mobility**, private vehicles are the most frequently used mode of transport in Denmark, as is the case in most Member States. However, cycling is also remarkably popular, accounting for more than 20 % of all trips. Public transport is also strong, providing transport to 13 % of Danish commuters.
- The percentage of **SMEs** that offer green products or services is significantly higher than the EU average. In addition, the percentage of Danish companies that generate a majority of their income from green products and services is greater than the EU average. There are two other factors that could help Denmark to innovate and thrive in the circular economy: the large number of 'frontrunners' that produce advanced green products and services; and the country's open cooperation culture.
- Denmark has been recognised for its efforts to create liveable urban areas in which **green infrastructure** plays an important role. The Copenhagen municipality has adopted a policy to make trees a greater priority in the city. In addition, the 2016 Nordic Council of Ministers gave a Nordic Built Cities Challenge award to a park in Copenhagen. The award recognised the park's

innovative use of 'blue-green infrastructure' to manage rainwater from cloudbursts.

- Denmark's consistent culture of **transparency** is an example of good practice in environmental compliance assurance.

Part I: Thematic areas

1. Turning the EU into a circular, resource-efficient, green and competitive low-carbon economy

Measures towards a circular economy

The Circular Economy Action Plan emphasises the need to move towards a life-cycle-driven 'circular' economy, reusing resources as much as possible and bringing residual waste close to zero. This can be facilitated by developing and providing access to innovative financial instruments and funding for eco-innovation.

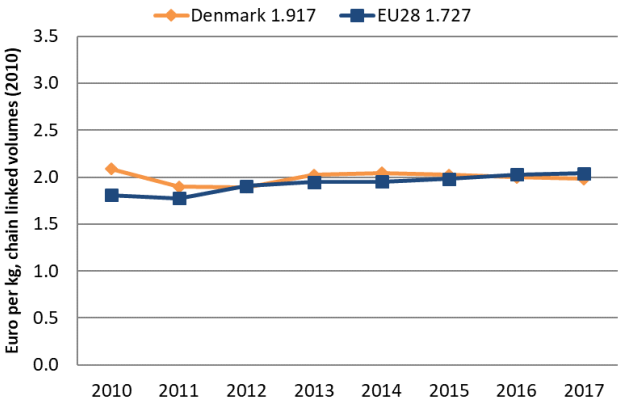
Following the adoption of the Circular Economy Action Plan in 2015 and the setting up of a related stakeholder platform in 2017, the European Commission adopted a new package of deliverables in January 2018[1]. This included additional initiatives such as: (i) an EU strategy for plastics; (ii) a Communication on how to address the interplay between chemical, product and waste legislation; (iii) a report on critical raw materials; and (iv) a framework to monitor progress towards a circular economy[2].

The circular (secondary) use of material in Denmark was 8.2 % in 2016 (below the EU-28 average of 11.7 %). The number of people in Denmark employed in the circular economy is slightly less than the EU-28 average (1.1.36 % of total employment in 2016 compared to an EU-28 average of 1.73 %).

In the 2017 Special Eurobarometer 468[3] on attitudes of EU citizens towards the environment, 88 % of Danes said they were concerned about the effects of plastic products on the environment (EU-28 average 87 %). 87 % said they were worried about the impact of chemicals (the EU-28 average was 90 %). There appears to be strong support in Danish society for circular economy initiatives and environmental protection actions.

In 2017, Denmark's resource productivity[4] (how efficiently the economy uses material resources to produce wealth) in value produced per kg of resources used was 1.98 EUR/kg. This was just below the EU average of 2.04 EUR/kg (Figure 1), with nine countries showing better results than Denmark.

Figure 1: Resource productivity 2010-2017[5]



The Danish Advisory Board for Circular Economy was set up in 2017. The Board has proposed 27 recommendations to promote the circular economy in Denmark. In September 2018, the Danish government followed up on the recommendations with its Strategy for circular economy, which was followed by a supporting political agreement in October 2018. The strategy and the political agreement include 16 initiatives funded by DKK 116 million (approx. EUR 15.7 million) in 2019-22.

The Danish government has started to include the circular economy as a topic for discussion in international trips made by government ministers. For example, the circular economy was a topic addressed by Prime Minister Lars Løkke Rasmussen in his visits to China and Indonesia in 2017.

In 2017, the Danish government announced that Denmark would work on a new national action plan on plastics as a follow-up to the 2018 EU strategy for plastics. Work on this action plan was ongoing end of 2018.

According to a recent survey of Danish companies on the circular economy[6], 88 % of Danish companies had positive views of the circular economy. The survey showed that Danish companies believed their lack of

[1] European Commission, 2018 Circular Economy Package.
[2] COM(2018) 029.
[3] European Commission, Special 468 Eurobarometer, "Attitudes of European citizens towards the environment", 2017.
[4] Resource productivity is defined as the ratio between gross domestic product (GDP) and domestic material consumption (DMC).
[5] Eurostat, Resource productivity.
[6] Danish EPA, Miljøstyrelsen, *Danskerne omfavner cirkulær økonomi*, 2017.

relevant knowledge was the main barrier preventing them from getting more involved in the circular economy. 30 % of respondents to the survey found that advice and consulting services were crucial in helping them to engage in the circular economy.

The number of EU Ecolabel products and EMAS licensed organisations[7] in a country can give a rough measurement of this transition. These two indicators show to what extent the circular economy transition is engaging the private sector and other national stakeholders. These two indicators also show the commitment of public authorities to policies that support the circular economy. As of September 2018, Denmark had 1166 products and 56 licences registered in the EU Ecolabel scheme out of a total of 71 707 products and 2167 licences in the EU. This shows there has been a high take-up of these schemes in Denmark[8]. Moreover, 28 organisations from Denmark were registered as of May 2018 in EMAS.

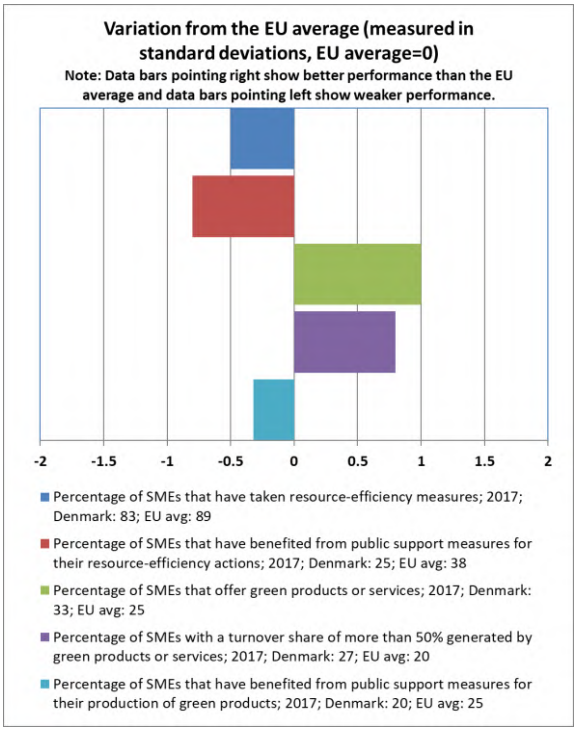
SMEs and resource efficiency

Danish SMEs continue to score above the EU average in the environmental aspects of the small business act[10], as shown in Figure 2. The share of Danish SMEs that recently took resource-efficiency measures and the share that have benefitted from public support measures for production of green products are slightly below the EU average.

The percentage of SMEs that offer green products or services is significantly higher than the EU average. A greater percentage of Danish companies than the EU average generate a majority of their turnover from green products and services. Denmark has been a strong performer in environmental policies for many years and has well-established support programmes for innovators.

The latest Eurobarometer on 'SMEs, resource efficiency and green markets'[9] asked companies about both recent resource-efficiency actions they had taken and additional resource-efficiency actions they planned to take in the next two years. The Eurobarometer then compared these responses with responses given to the same questions in 2015. Only 15 % of surveyed Danish companies had not undertaken an investment in resource efficiency between 2015 and 2017. However, there was a decline in the percentage of companies that were investing. For example, the percentage of companies that invested in energy saving fell 16 % to 55 % of all companies. This trend will likely continue, as 50 % of Danish companies do not plan to make further investments in resource efficiency in the next 2 years — one of the highest rates in the EU.

Figure 2: Environmental performance of SMEs[10]



Only 27 % of Danish companies (against an EU average of 22 %, with a range between 3 % and 38 %) relied on 'external' support (help from outside their companies, whether public or private) in their efforts to be more resource efficient. 64 % of Danish companies took advice from private consultants, the highest rate across the EU, while 54 % of Danish companies took advice from business associations. Public administration assistance played less of a role in Danish SMEs (used by only 19 % of companies), and public-sector grants played a marginal role (used by only 7 % of companies).

30 % of Danish companies said that external consultancy on resource efficiency was helpful. 28 % of companies said that grants and subsidies were helpful. Danish companies generally found other forms of support to be less useful than the EU average, with the exception of reference databases (which were rated as helpful by 17 % of Danish companies against an EU average of 13 %) and self-assessment tools (which were rated as helpful by 19 % of Danish companies against an EU average of 15 %).

[7] EMAS is the European Commission's Eco-Management and Audit Scheme – a programme to encourage organisations to behave in a more environmentally sustainable way, Eco-Management and Audit Scheme.
[8] European Commission, Ecolabel Facts and Figures.
[9] Flash Eurobarometer 456 'SME, resource efficiency and green markets' January 2018. The 8 dimension were Save energy; Minimise waste; Save materials; Save Water; Recycle by reusing material internally; Design products easier to maintain, repair or reuse; Use renewable energy; Sell scrap materials to another company.
[10] European Commission, 2018 SBA fact sheet - Denmark, p. 16.

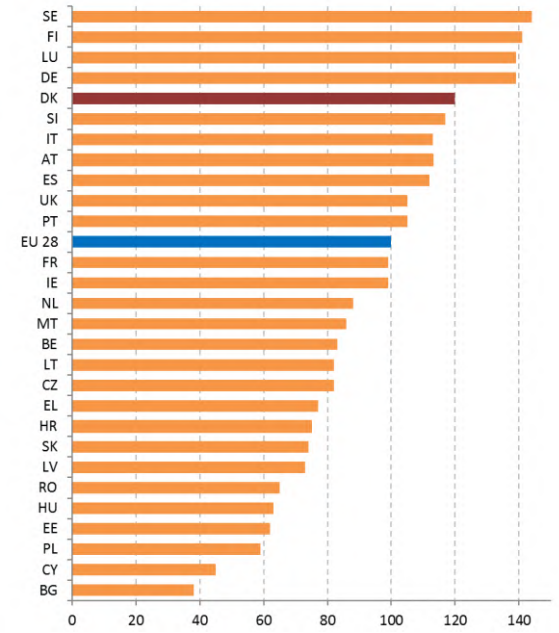
Danish SMEs have an advanced understanding of resource efficiency, but their ambition to invest in it must be maintained. The large number of frontrunners that produce green products and services, and Denmark's open cooperation culture could give Danish SMEs a strategic advantage in producing innovations for the circular economy.

Danish companies find their high-performing consulting sector to be very helpful, and these consulting companies should find additional markets across the EU.

Eco-innovation

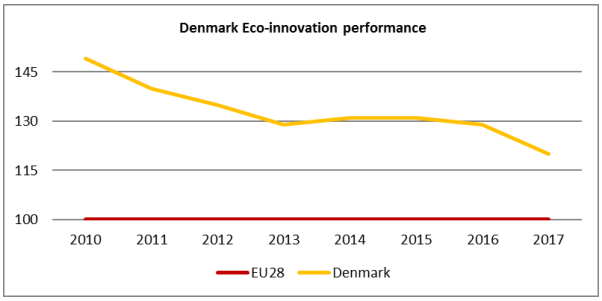
In 2018, Denmark ranked second on the European Innovation Scoreboard 2018, and was the 18th-fastest growing innovator (only 0.7 % increase since 2010)[11]. However, the country ranked only fifth in the overall 2017 EU Eco-innovation index (see Figure 3). This is a slightly lower ranking compared to the fourth position Denmark occupied in 2016 and the third position it occupied in 2015. Overall, since the first Eco-innovation Scoreboard in 2010, Denmark has never been ranked below fifth place and is considered to be among the lead countries in the EU.

Figure 3: 2017 Eco-innovation index (EU=100)[12]



However, since 2010, Denmark has seen its eco-innovation performance decline, from 149 points to a low of 120 in 2017 (see Figure 4).

Figure 4: Denmark's eco-innovation performance



Technology and services for green energy has been a strong driver of eco-innovation in Danish exports. Denmark has a strong support framework of export financing and assistance to help companies internationalise their innovations and other commercial activities. In 2016 Danish companies exported energy technology for DKK 75.6 billion and services for DKK 8.2 billion (i.e. respectively around EUR 10.13 and 1.09 billion)[13].

Overall, Denmark has a strong science base and a strong foundation for business innovation. Denmark's R&D intensity (a measure of the percentage of GDP spent on R&D) has been at around the EU 2020 target of 3 % of GDP since 2009. In 2016, it reached 2.9 % of GDP, and in that year Denmark's R&D intensity was the fourth highest in the EU (Eurostat, 2018b). Denmark also has the second-highest public R&D intensity, following a small contraction in 2016, and the fourth highest Business enterprise R&D (BERD) intensity in Europe. SMEs have good access to investment and funding, both public and private. However, there is room to further streamline public funding programmes for Danish SMEs. The private sector accounts roughly for 2/3 of total public R&D intensity, and more initiatives have been launched to support start-ups and SMEs.

Another area that has improved is cooperation between universities and businesses. This cooperation has sought to ensure that Denmark's high public investment in university-based R&D leads to ground-breaking innovation, productivity, employment and economic growth. Denmark already sought to address this issue with its innovation strategy, entitled 'Denmark — a nation of solutions (2012-2020)'. The Danish government continues to work on this issue[14].

Ecoinnovation.dk is the Danish eco-innovation programme[15]. It began in 2007. Its objective is to help Danish companies develop, test and demonstrate new environmental technology. It seeks to promote

[11] European Commission, European innovation Scoreboard 2018.
[12] European Commission, Eco-innovation Observatory: Eco-Innovation scoreboard 2018.
[13] Danish Ministry of Energy, Utilities and Climate, 2017.
[14] Denmark - Ready to seize future opportunities.
[15] In Danish: MUDP — Miljøteknologisk Udviklings- og Demonstrationsprojekt.

technology that: (i) delivers better and more cost-effective environmental solutions, and (ii) has the potential to contribute to increased exports and more green jobs in Denmark.

Denmark has a number of established financing instruments to promote eco-innovation. Some of these instruments are described in more detail below.

- The Danish Green Investment Fund (Danmarks Grønne Investeringsfond) is an independent state loan fund. Its purpose is to co-finance economically viable projects that support sustainable development in Denmark. The fund seeks to bridge the gap between traditional bank financing and equity capital.
- The Innovation Network for Environmental Technology (Inno-MT) is a partnership that supports projects dealing with waste, air, water and soil. A project may involve any form of technological development, service innovation or similar environmental technology. Funding of between DKK 100 000 (EUR 13 400) and DKK 400 000 (EUR 53 600) is available for each project. This money can cover costs for advice and technical assistance from the network's knowledge partners.
- Technology Demands is a new fund set up by Inno-MT. It provides funding for innovation projects involving universities and SMEs. Technology Demand is aimed at companies that either: (i) possess technological knowledge that is in high demand, or (ii) face environmental challenges. Technology Demand gives funding of up to DKK 150 000 (EUR 20 100) per project. This funding pays for advice and technological assistance [16].
- The Energy Technology Development and Demonstration Programme (Energiteknologisk udvikling og demonstration) is a public grant scheme. The scheme supports new energy technologies that can help meet Denmark's energy and climate goals.
- Innovation Fund Denmark (Innovationsfonden) was set up in 2014. The fund invests in new knowledge and early-stage technology, when other funding institutions might not be convinced of its potential. Innovation Fund Denmark does not take any stake in the project nor does it request repayment of its grants.
- The Danish Growth Fund (Vækstfonden) is a state investment fund that contributes to the creation of new companies by providing capital and expertise. The Danish Growth Fund invests equity, and also provides loans and guarantees for SMEs in collaboration with private partners and Danish financial institutions. Since 1992, the Danish Growth Fund and private investors have co-financed growth in more than 6 600 Danish companies with a total commitment of more than DKK 20 billion (EUR 2.7 billion) (www.vf.dk)
- The FORSK2025 (RESEARCH2025) catalogue identifies promising Danish research areas that could be sources of growth, employment and welfare in the future. Its search criteria are based on a number of significant challenges facing society in general and Denmark in particular.

[16] Innovation Network for Environmental Technologies.

Waste management

Turning waste into a resource is supported by:
(i) fully implementing EU waste legislation, which includes the waste hierarchy, the need to ensure separate collection of waste, the landfill diversion targets, etc.;
(ii) reducing waste generation and waste generation per capita in absolute terms; and
(iii) limiting energy recovery to non-recyclable materials and phasing out landfilling of recyclable or recoverable waste.

This section focuses on management of municipal waste[17] for which EU law sets mandatory recycling targets[18].

In 2017, the amount of municipal waste generated in Denmark was the highest in the EU (781 kg per year per inhabitant compared to the EU average of 487 kg per year per inhabitant). However, this high figure is partly linked to a methodological issue about how to define municipal waste.

Figure 5 depicts municipal waste by treatment in Denmark in kg per capita. It shows that levels of recycling is increasing and incineration is decreasing, although levels remained stable in 2017, with landfill continuously at a low level.

Denmark has a high percentage of incinerated waste in the EU (52.8 %) (EU average is around 28 %), but in Denmark incineration has to include energy recovery, which is not the case in a number of other EU countries. 46 % of municipal waste was recycled in 2017, which is the same figure than the EU average (46 %). Denmark has one of the lowest proportions of landfilled municipal waste in the EU (1 %) (EU average is around 24 %).

Figure 6 shows that Denmark almost achieved its

[17] Municipal waste consists of mixed waste and separately collected waste from households and from other sources, where such waste is similar in nature and composition to waste from households. This is without prejudice to the allocation of responsibilities for waste management between public and private sectors.
[18] See Article 11.2 of Directive 2008/98/EC. This Directive was amended in 2018 by Directive (EU) 2018/851, and more ambitious recycling targets were introduced for the period up to 2035.

recycling rate to achieve the EU 2020 target of 50 %[19].

Figure 5: Municipal waste by treatment in Denmark 2010-201720

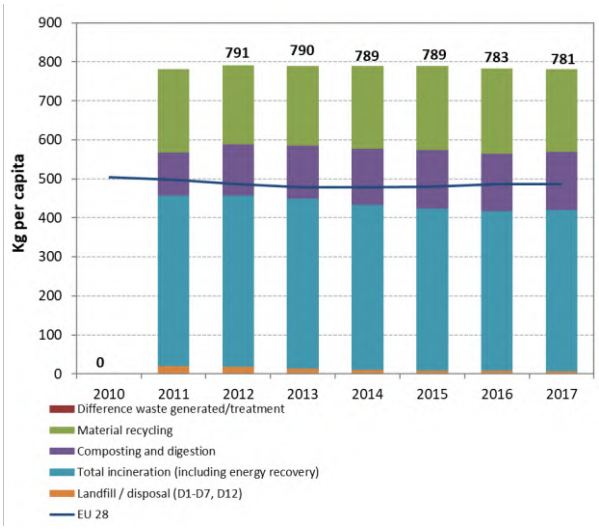
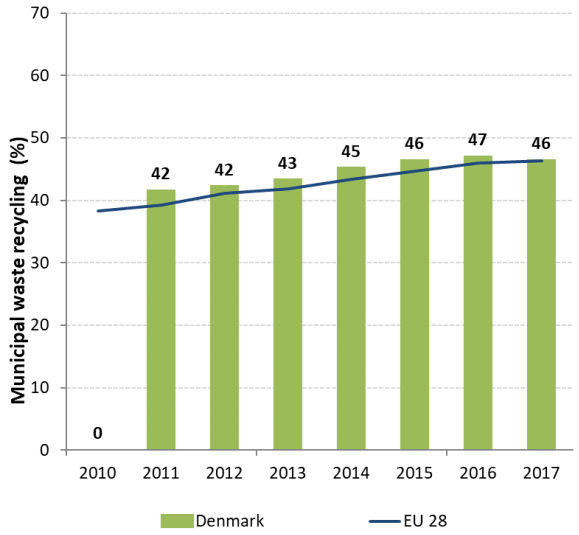


Figure 6: Recycling rate of municipal waste 2010-2017[21]



Denmark has taken appropriate steps to improve waste management and implement the current European waste targets. It remains one of the countries in the EU that produces more municipal waste per capita, and much of this waste is incinerated with energy recovery. Denmark's waste management plan aims to shift away from incineration with energy recovery towards more recycling. However, it is clear that Denmark must make more effort to ensure compliance with the recycling targets for the post-2020 period[22]. This will require action to reduce incineration with energy recovery of municipal waste in particular.

Investments will be needed higher in the waste hierarchy as well as for recycling in order to meet the more ambitious post 2020 targets and to promote the circular economy. Moreover, projects improving waste data reporting and extended producer responsibility would be crucial, as well as capacity building projects for municipalities to realise the necessary waste management reforms in the country. The investments should also prioritise projects in waste prevention, including re-use projects and awareness raising. Investments should not be directed to the treatment of residual waste in incinerators with energy recovery.

2019 priority actions

- Introduce new policy instruments, including economic instruments. These instruments should: (i) promote waste prevention, (ii) make waste reuse and recycling more economically attractive.
- Shift reusable and recyclable waste away from incineration with energy recovery.

Climate change

The EU has committed to undertaking ambitious climate action internationally as well as in the EU, having ratified the Paris Climate Agreement on 5 October 2016. The EU targets are to reduce greenhouse gas (GHG) emissions by 20 % by 2020 and by at least 40 % by 2030, compared to 1990. As a long-term target, the EU aims to reduce its emissions by 80-95 % by 2050, as part of the efforts required by developed countries as a group. Adapting to the adverse effects of climate change is vital to alleviate its already visible effects and improve preparedness for and resilience to future impacts.

For emissions not covered by the EU ETS, Member States have binding national targets under the effort sharing legislation. Denmark has had lower emissions than its annual targets in each of the years from 2013 to 2017. For 2020, Denmark's national target under this Decision is to reduce emissions by 20 % compared to 2005, and for 2030 it is to reduce emissions by 39 % compared to 2005.

The current energy plan ends in 2020 and in June 2018 the government and the Parliament signed an energy agreement for the period after 2020. Funding has been agreed that sets a course towards a share of renewable

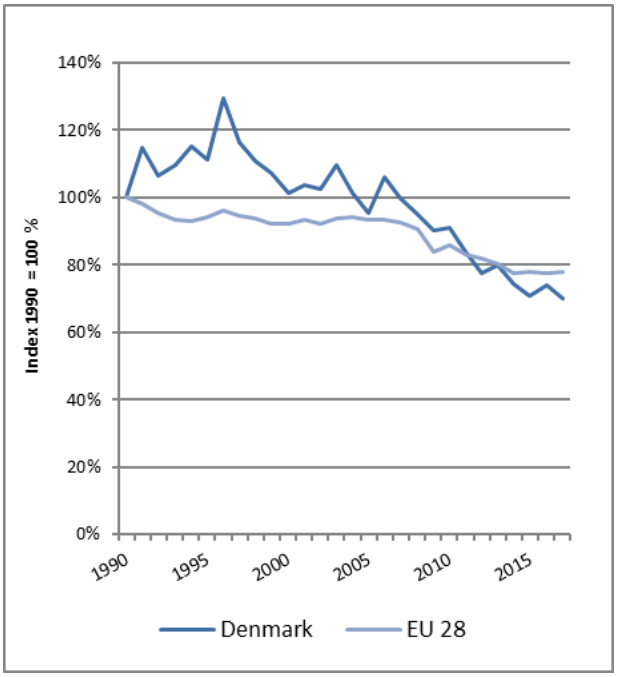
[19] Member States may choose a different method than the one used by ESTAT (and referred to in this report) to calculate their recycling rates and track compliance with the 2020 target of 50 % recycling of municipal waste.
[20] Eurostat, Municipal waste by waste operations.
[21] Eurostat, Recycling rate of municipal waste.

[22] Directive (EU) 2018/851, Directive (EU) 2018/852, Directive (EU) 2018/850 and Directive (EU) 2018/849 amend the previous waste legislation and set more ambitious recycling targets for the period up to 2035. These targets will be taken into consideration to assess progress in future Environmental Implementation Reports.

energy of approximately 55% by 2030. The plan will also phase out coal-based power and give Denmark a share of renewable energy in electricity above 100% of consumption, while ensuring that at least 90% of district heating consumption is based on energy sources other than coal, oil or gas by 2030. In accordance with the Paris Agreement, Denmark will work towards net zero emissions in the EU and Denmark by 2050 at the latest.

In October 2018, the Government presented a climate and air proposal "Together for a greener future" to ensure that Denmark continues to enjoy access to clean air and a stable climate.

Figure 7: Change in total GHG emissions 1990-2017 (1990=100 %)[23].



The proposal includes 38 concrete initiatives to spur the green transition in Denmark towards 2030. These include a stop on the sale of new petrol and diesel cars in 2030 and plug-in-hybrid cars in 2035 – and other initiatives for cleaner transport in cities and the countryside, a more efficient and modern agriculture, more environmentally-friendly shipping, and a green transition in housing and industry.

The draft national energy and climate plan, which is developed in the context of the Energy Union initiative, builds on the energy agreement and the climate and air proposal.

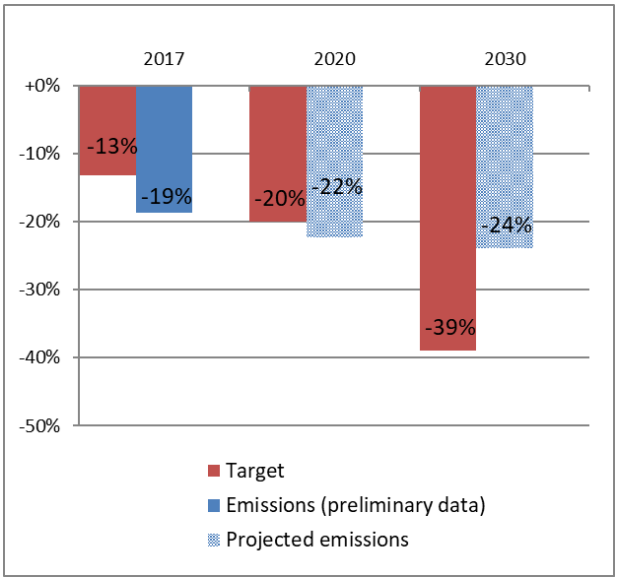
Transport emissions in Denmark increased by 2 % from 2012 to 2015.

The F-gas Regulation requires Member States to run training and certification programmes, introduce rules for penalties and notify these measures to the Commission by 2017. Denmark has notified both measures.

The accounting of GHG emissions and removals from forests and agriculture is governed by the Kyoto Protocol. A preliminary accounting exercise for the period 2013-2016 shows that Denmark had net credits of, on average, -2.8 Mt CO_2-eq, which corresponds to 2.4% of the EU-28 accounted sink of -115.7 Mt CO_2-eq.

The EU Strategy on adaptation to climate change, adopted in 2013, aims to make Europe more climate-resilient, by promoting action by Member States, better-informed decision making, and promoting adaptation in key vulnerable sectors. By adopting a coherent approach and providing for improved coordination, it seeks to enhance the preparedness and capacity of all governance levels to respond to the impacts of climate change.

Figure 8: Targets and emissions for Denmark under the Effort Sharing Decision and Effort Sharing Regulation[24].



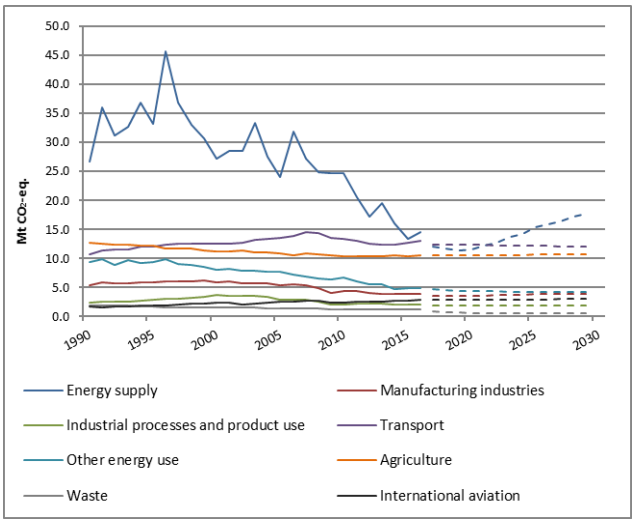
The Danish national adaptation strategy was adopted in 2008. It identifies 14 priority sectors: construction and housing, coasts and ports, transport, water, agriculture, forestry, fisheries, energy, tourism, nature, health, emergency preparedness, insurance and spatial planning. An action plan for a climate-proof Denmark was launched in 2012, based on the belief that a responsible climate policy must involve both short-term and long-term actions. So far, Denmark does not appear to have set up

[23] Annual European Union greenhouse gas inventory 1990–2016 (EEA greenhouse gas data viewer). *Proxy GHG emission estimates for 2017Approximated EU greenhouse gas inventory 2017* (European Environment Agency). Member States national projections, reviewed by the European Environment Agency.

[24] *Proxy GHG emission estimates for 2017Approximated EU greenhouse gas inventory 2017* (European Environment Agency). Member States national projections, reviewed by the European Environment Agency.

an overall monitoring and evaluation mechanism for climate-change adaptation. Nor does Denmark appear to have produced clear reports detailing its progress on adaptation in different sectors.

Figure 9: GHG emissions by sector (Mt. CO2-eq.) (historical data 1990-2016; projections 2017-2030)[25].



The total revenue from the auctioning of emission allowances under the EU ETS in the years 2013-2017 was EUR 301 million. Denmark does not earmark auctioning revenues for specific uses. On average, 100 % of the auctioning revenues is reported to have been spent on climate and energy policies.

2019 priority action

In this report, no priority actions have been included on climate action, as the Commission will first need to assess the draft national energy and climate plans which the Member States needed to send by end of 2018. These plans should increase the consistency between energy and climate policies and could therefore become a good example of how to link sector-specific policies on other interlinked themes such as agriculture-nature-water and transport-air-health.

[25] Annual European Union greenhouse gas inventory 1990–2016 (EEA greenhouse gas data viewer). *Proxy GHG emission estimates for 2017. Approximated EU greenhouse gas inventory 2017* (European Environment Agency). Member States national projections, reviewed by the European Environment Agency.

2. Protecting, conserving and enhancing natural capital

Nature and biodiversity

The EU biodiversity strategy aims to halt the loss of biodiversity in the EU by 2020. It requires full implementation of the Birds and Habitats Directives to achieve favourable conservation status of protected species and habitats. It also requires that the agricultural and forest sectors help to maintain and improve biodiversity.

Biodiversity strategy

Denmark's national biodiversity strategy is entitled 'The Danish Nature Policy — Our Shared Nature'. Adopted in 2014, it contains a long-term vision to 2050 and serves as Denmark's revised national biodiversity strategy and action plan. Since 2016, it has been under revision by the Danish government.

Setting up a coherent network of Natura 2000 sites

On the basis of the latest update on the assessment of The Birds and Habitats directives, Denmark's terrestrial Natura 2000 network under the Birds and Habitats Directives is now considered to be complete.

The Danish government has initiated a procedure to adjust the boundaries of the sites within its Natura 2000 network. This procedure will be finished by the end of 2018. The Commission will then carry out a detailed analysis of the proposed changes.

In early 2016, 8.3 % of the Danish national territory was covered by Natura 2000 sites (the EU average was 18.1 %). Birds Directive special protection areas (SPAs) covered 6.0 % (EU average 12.3 %) and Habitats Directive sites of community importance (SCIs) covered 7.4 % (EU average 13.8 %). Furthermore, Denmark has designated substantial marine areas, covering around 17 % of Danish waters. Altogether, there are 364 Natura 2000 sites in Denmark (113 SPAs and 261 Special Areas of Conservation), although many of these overlap with each other.

Designating Natura 2000 sites and setting conservation objectives and measures

Based on an assessment of the sufficiency of the SCI network[26] for Annex II species and Annex I habitats occurring in Denmark, the Natura 2000 network in Denmark is almost complete and close to complete in the Atlantic and Continental terrestrial region, the Marine Atlantic region and the Baltic region.

All these sites have been designated as special areas of conservation (SAC). Conservation objectives and measures have been drawn up for each of these sites.

Denmark is an agricultural country, with approximately two thirds of the land area under cultivation, though this has been declining steadily for many years. The area of open natural habitat has also declined considerably over the past century, but is now relatively stable at around 10 % of Denmark's territory. The Danish marine environment is of great importance: its relatively shallow waters contain marine habitat types that sustain internationally significant numbers of waterfowl.

27 % of Denmark's plant and animal species that have been studied or assessed are 'red-listed'[27]. 54 % of red-listed species are associated with forest habitats. Threats facing these protected species and habitats include fragmentation of populations, deteriorating habitats and climate change. Intensive agriculture, including the use of pesticides and nutrients, continues to impact biodiversity, the aquatic environment, and drinking water. The nitrogen load has decreased in recent years. Although the use of pesticides has been increasing since 2014, pesticides with a higher impact on health and the environment have been substituted for pesticides with a lower impact.

The 2017 EIR referred to the latest report on the conservation status of habitats and species. New data will be available for the next EIR.

One especially alarming fact is that all forest habitat assessments are unfavourable. Most of Denmark's grassland, bog, mire and coastal habitat types also have unfavourable status. Denmark is one of the countries in the EU that reports the most habitat assessments with unfavourable status. Agriculture and pollution are the most frequently reported pressures of high importance in

[26] For each Member State, the Commission assesses whether the species and habitat types on Annexes I and II of the Habitats Directive, are sufficiently represented by the sites designated to date. This is expressed as a percentage of species and habitats for which further areas need to be designated in order to complete the network in that country. A scientific reserve is given when further research is needed to identify the most appropriate sites to be added for a species or habitat. The current data, which were assessed in 2014-2015, reflect the situation up until December 2013.

[27] The IUCN Red List is the world's most comprehensive inventory of the global conservation status of biological species. It is set upon precise criteria to evaluate the extinction risk of thousands of species.

Denmark. The structures and functions of all forest types are reported to be in highly unfavourable status. The high levels of airborne deposition of nitrogen are indicated as a threat.

Marine habitats in Denmark are still being affected by nutrients supplied from surface water and from atmospheric deposition. However, in recent years there have been good efforts to limit emissions.

Species assessments are generally more favourable than habitat assessments in Denmark. 34 % of species (other than birds) have favourable status (against an EU-27 average of 23 %). 13 % of species other than birds are assessed as having unfavourable-inadequate status (against an EU-27 average of 42 %). However 28 % of species other than birds have unfavourable-bad status (against an EU-27 average of 18 %).

The Danish government has informed the Commission that national initiatives planned in the country's Nature Package (Naturpakken) include an additional 13 300 ha of high-nature-value forest in the national forests (owned by the government) and at least 900 additional ha of high-nature-value privately owned forests. National funding for 2016-2021 is DKK 87.9 million and DKK 20 million annually from 2021 (not including EU-funding). The overall financial framework for the Natura 2000 sites for the management planning period 2016-2021 was decided with the political agreement on the Food and Agricultural Package with c. 1.8 billion DKK allocated for Natura 2000, mainly via the Rural Development Programme. The Government has also pledged to contribute DKK 48 million (c. EUR 6.5 million) to two new LIFE projects in Denmark, co-financed by the EU.

Progress in maintaining or restoring favourable conservation status of species and habitats

Considering that Member States report every 6 years on the progress made under both directives, no new information is available on the state of natural habitats and species, or on progress made in improving the conservation status of species and habitats in Denmark, as compared to the 2017 EIR.

Overall, it is acknowledged that improvements in the status of species and habitats have recently been reported in Denmark.

2019 priority actions

- Make further efforts to ensure that the Natura 2000 network is managed in a way that achieves the favourable conservation status of protected habitats and species, especially by reducing the pressures from agriculture.
- Put in place clearly defined conservation objectives, and the necessary conservation measures for the sites. Provide adequate resources so that they may meet their objective of maintaining or restoring species and habitats of community interest to a favourable conservation status across their natural range.

Maintaining and restoring ecosystems and their services

The EU biodiversity strategy aims to maintain and restore ecosystems and their services by including green infrastructure in spatial planning and restoring at least 15 % of degraded ecosystems by 2020. The EU green infrastructure strategy promotes the incorporation of green infrastructure into related plans and programmes.

The EU has provided guidance on the further deployment of green and blue infrastructure in Denmark[28] and a country page on the Biodiversity Information System for Europe (BISE)[29]. This information will also contribute to the final evaluation of the EU Biodiversity Strategy to 2020.

In Denmark, green infrastructure is addressed in several national and regional documents that deal with spatial planning. Green infrastructure is also referred to in legislation dealing with nature protection, forestry, national parks and land distribution.

Denmark has been recognised and awarded for its efforts to create liveable urban areas in which green infrastructure plays an important role. The Copenhagen municipality has adopted a policy to make trees a greater priority in the city between 2016 and 2025. In addition, the 2016 Nordic Council of Ministers gave a Nordic Built Cities Challenge award to a park in Copenhagen. The award recognised the park's innovative use of 'blue-green infrastructure' to manage rainwater from cloudbursts in the Hans Tavsens Park in Copenhagen.

[28] The recommendations of the green infrastructure strategy review report and the EU Guidance on a strategic framework for further supporting the deployment of EU-level green and blue infrastructure.
[29] Biodiversity Information System for Europe.

To help municipalities develop a 'green map' of Denmark[30] and improve land-use planning, the Danish Environmental Protection Agency developed a new digital mapping service of biodiversity in Denmark ('biodiversitetskort'). This map provides information about the distribution of threatened and vulnerable species. It also provides an overview of high-value natural areas. It is part of a suite of mapping services known as the Nature Map ('naturkort').

The Danish government agreed on a package of nature policies in May 2016 and a package of food and agriculture policies[31] in December 2016. These policies will constitute the framework for promoting green infrastructure in agriculture. In 2016-2019, a national scheme is being implemented to support hedgerows. Its main purpose is to increase biodiversity in open agricultural land. In addition, 4 500 ha of carbon-rich organic soils will be set aside by 2020 to restore or improve natural habitats to support biodiversity and climate-change mitigation.

The government's reforestation scheme has been funded via the Danish Nature Protection Act, and co-funded by water utilities and municipal funds. The Nature Fund ('Den Danske Naturfond'[32]) is a public-private partnership that supports projects that expand and/or improve natural areas. Other green infrastructure initiatives can be financed by EAFRD measures and national budgets. The government has pledged to contribute DKK 48 million (around EUR 6.5 million) to two new LIFE projects in Denmark that are co-financed by the EU.

As a densely populated and highly urban and suburban country, Denmark faces high competition for space and potentially limited opportunities for the development of green infrastructure. 'Greening' agricultural land and management practices remains a challenge for developing green infrastructure.

Denmark is required to provide information about progress on a prioritisation framework for the restoration of biodiversity, as provided for under Action 6(a) of the EU biodiversity strategy. It is also required to provide information on other strategic approaches to biodiversity restoration.

Estimating natural capital

The EU biodiversity strategy calls on Member States to map and assess the state of ecosystems and their services[33] in their national territories by 2014, assess the economic value of such services and integrate these values into accounting and reporting systems at EU and national level by 2020.

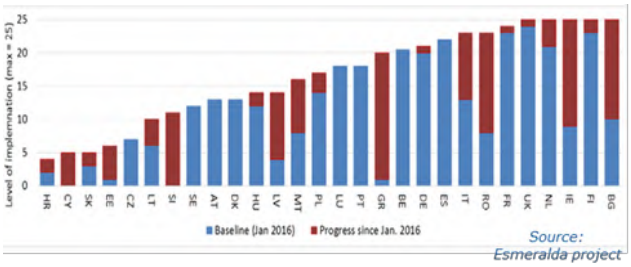
Denmark has its own MAES website on the Biodiversity Information System for Europe platform (BISE). Since 2015, Denmark has not provided any new information on this website about its work on the mapping and assessment of ecosystems and their services.

Denmark has accomplished a full-scale mapping of its ecosystems, and provided an overview of the status of the ongoing ecosystem-service mapping for 16 ecosystem services. An overview of existing data sources and methods used is synthesised in tables. The report shows that there is an unexploited potential for combining modelling and mapping of ecosystems services and economic valuation of biodiversity and ecosystem services in Denmark. Mapping of the distribution of species shows a clear correlation between land use categories and biodiversity.

A follow-up MAES project started 2015 and a report was published in 2017[34]. It illustrates in which cases and under which circumstances synergies and trade-offs are found for six different scenarios between six ecosystem services and biodiversity.

Overall, the project has shown that it is possible to combine existing spatial data layers and models and thereby facilitating analyses of the effects of land use changes across many ecosystem services and biodiversity indicators. Moreover, it has been shown that it is possible to combine bio-physical modelling of ecosystem services with spatially specific data and economic valuation.

Figure 10: Implementation of MAES (September 2018)



Business and biodiversity platforms, networks and communities of practice are key tools for promoting and

[30] The idea of a Green Map of Denmark ('Grønt Danmarkskort') was introduced in the Danish Spatial Planning Act in 2015 with the aim to, for instance, ensure that the most valuable Danish nature is sufficiently interconnected to allow species to spread and thrive.
[31] Fødevare- og landbrugspakke.
[32] The Danish Nature Fund.

[33] Ecosystem services are benefits provided by nature such as food, clean water and pollination on which human society depends.
[34] BISE, Green Infrastructure in Denmark.

facilitating natural capital assessments among business and financial service providers, for instance via the Natural Capital Coalition's protocol[35]. The assessments contribute to the EU biodiversity strategy by helping private businesses better understand and value both their impact and dependence on nature. Biodiversity platforms have been established at EU level[36] and in a number of Member States.

Denmark has not yet established such a platform.

2019 priority action

- Denmark is encouraged to start working on a nationwide MAES-type initiative to develop a natural capital accounting system.

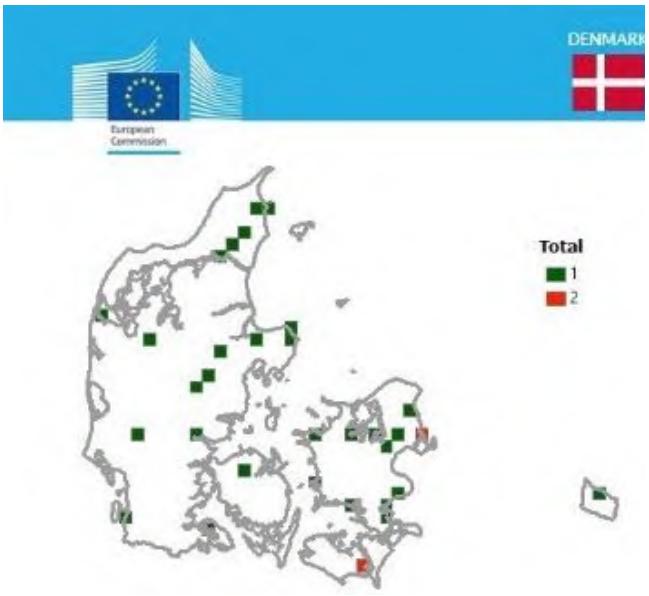
Invasive alien species

Under the EU biodiversity strategy, the following are to be achieved by 2020:
(i) invasive alien species identified;
(ii) priority species controlled or eradicated; and
(iii) pathways managed to prevent new invasive species from disrupting European biodiversity.
This is supported by the Invasive Alien Species (IAS) Regulation, which entered into force on 1 January 2015.

In 2017, the EU released a report on the baseline distribution of invasive alien species of Union concern (Figure 11). Denmark reviewed its country and grid-level data to contribute to this report. The report shows that of the 37 species on the first Union list, 13 have been observed in the environment in Denmark. 10 of these 13 invasive alien species are considered as 'established' in Denmark (a species being established in a new habitat means it can successfully produce viable offspring with the likelihood of continued survival). None of these established invasive alien species seem to be very widely spread across the country. According to the data, Denmark appears to be less subject to invasive alien species than its neighbouring countries. However, this may simply indicate that less data are available in Denmark due to listed species not being subject to surveillance before the adoption of the Union list. The country is facing a high invasion pressure of raccoon (*Procyon lotor*) from Germany.

Between the entry into force of the Union list and 18 May 2018 Denmark submitted one early detection notification to the European Commission. These notifications are required under Article 16(2) of the Invasive Alien Species Regulation whenever an invasive alien species of Union concern not previously present in a country is detected in a country for the first time. Notifications are also required when an invasive alien species of Union concern that was previously believed to be eradicated from a country reappears. The Danish notification was for ruddy duck (Oxyura jamaicensis). Eradication measures are ongoing.

Figure 11: Number of IAS of EU concern, based on available georeferenced information for Denmark[37]



Denmark has notified the Commission of its competent authorities responsible for implementing the IAS Regulation as required by Article 24(2) of the IAS Regulation. It has communicated to the Commission the national provisions on penalties applicable to infringements, as required by Article 30(4) of the IAS Regulation and has therefore fulfilled its notification obligations in this regard.

2019 priority action

- Investigate the apparent lack of data and seek ways of improving the surveillance system

Soil protection

The EU soil thematic strategy underlines the need to ensure a sustainable use of soils. This entails preventing further soil degradation and preserving its functions, as well as restoring degraded soils. The 2011 Roadmap to a Resource Efficient Europe states that by 2020, EU policies must take into account their direct and indirect impact on land use.

[35] Natural Capital Coalition, Natural Capital Protocol.

[36] Business and Biodiversity, The European Business and Biodiversity Campaign aims to promote the business case for biodiversity in the EU Member States through workshops, seminars and a cross media communication strategy.

[37] Tsiamis K; Gervasini E; Deriu I; D`amico F; Nunes A; Addamo A; De Jesus Cardoso A. Baseline Distribution of Invasive Alien Species of Union concern. Ispra (Italy): Publications Office of the European Union; 2017, EUR 28596 EN, doi:10.2760/772692.

Soil is a finite and extremely fragile resource and it is increasingly degrading in the EU.

The percentage of artificial land[38] in Denmark (Figure 12) can show the relative pressure on nature and biodiversity, and the environmental pressure on people living in urbanised areas.

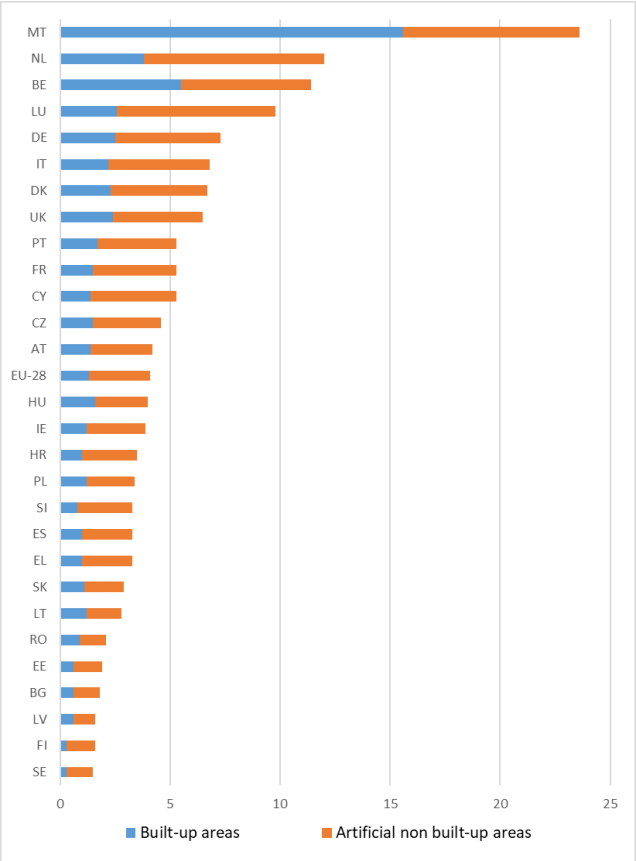
Denmark ranks around the EU average for artificial land coverage, with 6.7 % of artificial land (EU-28 average: 4.1 %). Denmark's population density is 136.4/km^2, which is also above the EU average of 118/km^2[39].

Contamination can severely reduce soil quality and threaten human health or the environment. A recent report of the European Commission[40] estimated that potentially polluting activities have taken or are still taking place on approximately 2.8 million sites in the EU. At EU level, 650 000 of these sites have been registered in national or regional inventories. 65 500 contaminated sites already have been remediated. Denmark has registered 16 865 sites where potentially polluting activities have taken or are taking place, and already has remediated or applied aftercare measures on 2 483 sites.

Soil erosion by water is a natural process, but this natural process can be aggravated by climate change and human activities such as inappropriate agricultural practices, deforestation, forest fires or construction works. High levels of soil erosion can reduce productivity in agriculture and can have negative and transboundary impacts on biodiversity and ecosystem services. High levels of soil erosion can also have negative and transboundary effects on rivers and lakes (due to increased sediment volumes and transport of contaminants). According to the RUSLE2015 model[41], Denmark has an average soil loss rate by water of 0.50 tonnes per hectare per year (t ha^{-a} yr^{-y}), compared to the EU mean of 2.46 t ha^{-a} yr^{-y}. This indicates that soil erosion in Denmark is under control. Note that these figures are the output of an EU-level model and can therefore not be considered as values measured in-field. The actual rate of soil loss can vary strongly within a Member State depending on local conditions.

Soil organic matter plays an important role as a carbon sink in the carbon cycle and in climate change. Denmark has an average concentration of soil organic carbon of 29.6 g/kg (across all land cover types) compared to a European mean of 47 g/kg.

Figure 12: Proportion of artificial land cover, 2015[42]



Marine protection

EU coastal and marine policy and legislation require that by 2020 the impact of pressures on marine waters be reduced to achieve or maintain good environmental status (GES) and ensure that coastal zones are managed sustainably.

The Marine Strategy Framework Directive (MSFD)[43] aims to achieve good environmental status of the EU's marine waters by 2020. To that end, Member States must develop a marine strategy for their marine waters, and cooperate with the EU countries that share the same marine (sub)region.

These marine strategies comprise different steps that must be developed and implemented over six-year cycles. The latest step required Member States to set up

[38] Artifical land cover is defined as the total of roofed built-up areas (including buildings and greenhouses), artificial non built-up areas (including sealed area features, such as yards, farmyards, cemeteries, car parking areas etc. and linear features, such as streets, roads, railways, runways, bridges) and other artificial areas (including bridges and viaducts, mobile homes, solar panels, power plants, electrical substations, pipelines, water sewage plants, and open dump sites).

[39] Eurostat, Population density by NUTS 3 region.

[40] Ana Paya Perez, Natalia Rodriguez Eugenio (2018), Status of local soil contamination in Europe: Revision of the indicator "Progress in the management Contaminated Sites in Europe".

[41] Panagos, P., Borrelli, P., Poesen, J., Ballabio, C., Lugato, E., Meusburger, K., Montanarella, L., Alewell, C., The new assessment of soil loss by water erosion in Europe, Environmental Science and Policy, 2015, 54, pp. 438-447.

[42] Eurostat, Land covered by artificial surfaces by NUTS 2 regions.

[43] Directive 2008/56/EC.

and report to the Commission their programme of measures by 31 March 2016.

The Commission could not assess whether Danish measures were appropriate to reach GES[44] given that Denmark reported its measures too late for the Commission to include them in this assessment exercise[45].

For Denmark, the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention) and the Baltic Marine Environment Protection Commission (Helsinki Commission) make a significant contribution to achieving the goals required by the Marine Strategy Framework Directive.

2019 priority action

- Ensure timely reporting of the different elements under the Marine Strategy Framework Directive so that Denmark can be part of future Commission assessments.

[44] COM(2018) 562 and SWD(2018) 393.
[45] Denmark reported its programme of measures to the Commission on 30 May 2017 whereas the due date was 31 March 2016.

3. Ensuring citizens' health and quality of life

Air quality

EU clean air policy and legislation require the significant improvement of air quality in the EU, moving the EU closer to the quality recommended by the World Health Organisation. Air pollution and its impacts on human health, ecosystems and biodiversity should be further reduced with the long-term aim of not exceeding critical loads and levels. This requires strengthening efforts to reach full compliance with EU air quality legislation and defining strategic targets and actions beyond 2020.

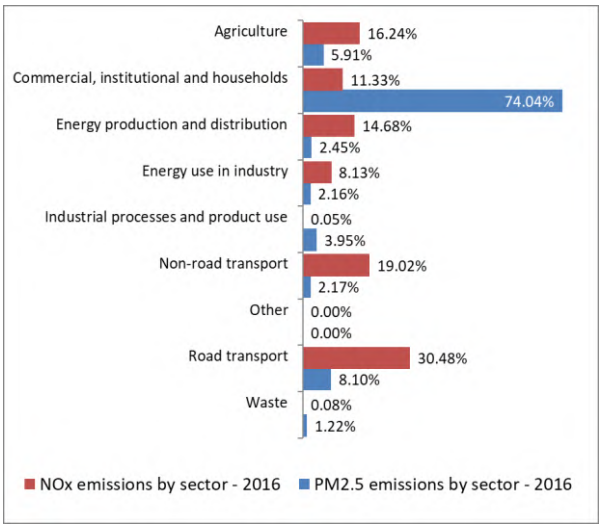
The EU has developed a comprehensive body of air quality legislation[46], which establishes health-based standards and objectives for a number of air pollutants.

The emissions of several air pollutants have decreased significantly in Denmark[47]. The emission reductions between 1990 and 2014, mentioned in the previous EIR, continued between 2014 and 2016. Emissions of sulfur oxides (SO_x) fell by 2.85 %, emissions of nitrogen oxides (NO_x) fell by 0.71 and emissions of volatile organic compounds (NMVOCs) fell by 0.36 %. Meanwhile, emissions ammonia (NH_3) increased by 1.76 % between 2014 and 2016 and emissions of fine particulate matter $PM_{2.5}$ have increased over the period. This is however mainly due to an alteration in the method for taking stock of wood burning stoves in private households. Residential heating constitutes approximately two thirds of $PM_{2.5}$ emissions (see also Figure 13 on the total $PM_{2.5}$ and NO_x emissions per sector).

According to a special report from the European Court of Auditors (ECA)[48], EU action to protect human health from air pollution has not had its expected impact. There is a risk that air pollution is being underestimated in some instances because it may not always be monitored in the right places. Member States are now required to report both real-time and validated air quality data to the Commission[49].

Hence, additional efforts are needed to attain the emission reduction commitments for NH_3 and $PM_{2,5}$ (compared 2005 emission levels) laid down in the new National Emissions Ceilings Directive[50] for the period 2020 to 2029 and for any year from 2030.

Figure 13: $PM_{2.5}$ and NO_x emissions by sector in Denmark[51]



According to the ECA[52], EU action to protect human health from air pollution has not delivered its expected impact. There is notably a risk that air pollution is being underestimated in some instances because it may not always be monitored in the right places. Indeed, Member States are required to report both real-time and validated air quality data to the Commission.

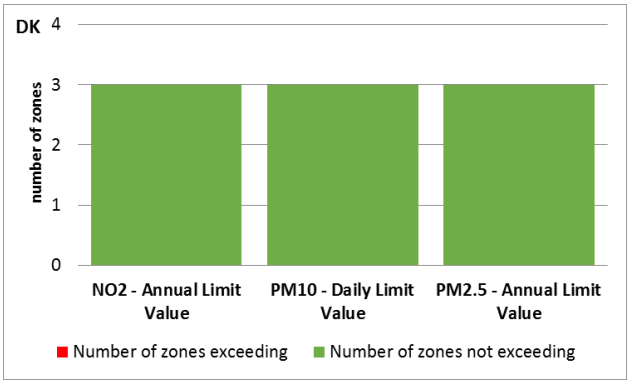
Air quality in Denmark is reported to be generally good with exceptions.. For 2015, the European Environment

[46] European Commission, Air Quality Standards, 2016.
[47] See EIONET Central Data Repository and Air pollutant emissions data viewer (NEC Directive).
[48] European Court of Auditors, Special report no 23/2018: Air pollution: Our health still insufficiently protected.
[49] Article 5 of Commission Implementing Decision 2011/850/EU of 12 December2011 laying down rules for Directives 2004/107/EC and 2008/50/EC of the European Parliament and of the Council as regards the reciprocal exchange of information and reporting on ambient air quality (OJ L 335, 17.12.2011, p. 86) requires Member States to provide Up-To-Date data.
[50] Directive 2016/2284/EU.
[51] 2016 NECD data submitted by Member State to the EEA.
[52] European Court of Auditors, Special report no 23/2018, Air pollution: Our health still insufficiently protected, p.41.

Agency estimated that about 2 800 premature deaths in Denmark were attributable to fine particulate matter[53] concentrations, 90 premature deaths were attributable to ozone[54] concentrations, and 80 premature deaths were attributable to nitrogen[55] dioxide concentrations[56]. For 2017, no exceedances above the EU air quality standards have been reported.

The past persistent breach of air quality requirements (for NO_2,) which have severe negative effects on health and the environment, are being followed up by the European Commission through infringement procedures covering in all the Member States concerned, including Denmark. The aim of these infringement procedures is that to encourage countries to put adequate measures in place to bring all zones into compliance. Demark reported no exceedances in 2017, which is encouraging for the future.

Figure 14: Air quality zones exceeding EU air quality standards in 2017[57]



The Danish Government launched a clean air package in October 2018[58], especially dedicated to reduce air pollution in larger cities and phase-out diesel and gasoline vehicles. Further, it has committed meet the reduction targets under the NEC directive. Concrete objectives include no new diesel or gasoline cars sold by 2030; no hybrid cars by 2035; cleaner transportation in urban and rural areas; more environment friendly shipping at sea and in harbours; an effective and modern agricultural sector; greener residential heating.

[53] PM is a mixture of aerosol particles (solid and liquid) covering a wide range of sizes and chemical compositions. PM_{10} ($PM_{2.5}$) refers to particles with a diameter of 10 (2.5) micrometres or less. PM is emitted from many anthropogenic sources, including combustion.
[54] Low level ozone is produced by photochemical action on pollution.
[55] NO_x is emitted during fuel combustion e.g. from industrial facilities and the road transport sector. NO_x is a group of gases comprising nitrogen monoxide (NO) and nitrogen dioxide (NO_2).
[56] European Environment Agency, Air Quality in Europe – 2018 Report, p.64. Please see details in this report as regards the underpinning methodology.
[57] EEA, EIONET Central Data Repository. Data reflects the reporting situation as of 26 November 2018.
[58] Together for a greener future.

2019 priority actions

- Take action, in the context of the forthcoming National Air Pollution Control Programme (NAPCP), to reduce the main emission sources, while giving special attention to measures reducing $PM_{2.5}$ and ammonia.
- Reduce ammonia (NH_3) emissions to comply with currently applicable national emission ceilings, for example by introducing or expanding the use of low-emission agricultural techniques.

Industrial emissions

The main objectives of EU policy on industrial emissions are to:
(i) protect air, water and soil;
(ii) prevent and manage waste;
(iii) improve energy and resource efficiency; and
(iv) clean up contaminated sites.
To achieve this, the EU takes an integrated approach to the prevention and control of routine and accidental industrial emissions. The cornerstone of the policy is the Industrial Emissions Directive[59] (IED).

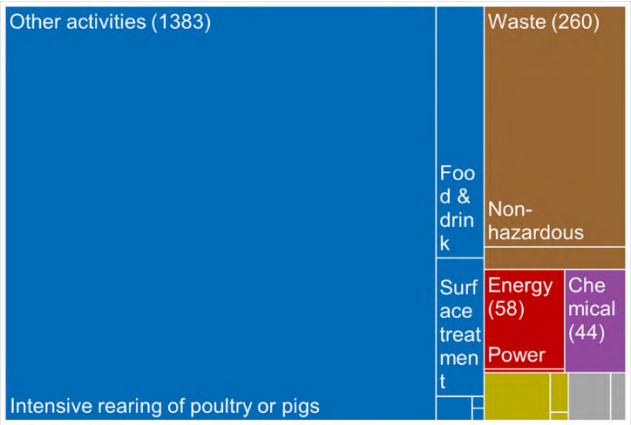
The below overview of industrial activities regulated by the IED is based on the 'industrial emissions policy country profiles' project[60].

In Denmark, around 1 800 industrial installations are required to have a permit based on the IED[61]. The industrial sectors in Denmark with the most IED installations in 2015 were the intensive rearing of poultry or pigs (70 % of total), followed by non-hazardous waste management (13 %).

The industrial sectors contributing the most emissions to air in Denmark are: (i) energy-power for most pollutants, and (ii) 'other activities' (mostly the intensive rearing of poultry or pigs and surface treatment) mainly for non-methane volatile organic compounds (NMVOC) and ammonia (NH3) emissions. Iron and steel production for most heavy metals also made a significant contribution, as did energy refining for several pollutants. The breakdown is shown in Figure 16.

[59] Directive 2010/75/EU covers industrial activities carried out above certain thresholds. It covers energy industry, metal production, mineral and chemical industry and waste management, as well as a wide range of industrial and agricultural sectors (e.g. intensive rearing of pig and poultry, pulp and paper production, painting and cleaning).
[60] European Commission, Industrial emissions policy country profile – Denmark.
[61] European Commission, Industrial emissions policy country profile – Denmark.

Figure 15: Number of IED industrial installations by sector, Denmark (2015)[62]



The chemical industry has quite a significant role in emissions to water according to reported E-PRTR data (although there are major data gaps). However, most Danish industrial wastewater is treated in municipal water treatment plants. The waste management sector is the main contributor to hazardous and non-hazardous waste generation.

The enforcement approach under the IED creates strong rights for citizens to have access to relevant information and to participate in the permitting process for IED installations. This empowers NGOs and the general public to ensure that permits are appropriately granted and their conditions respected.

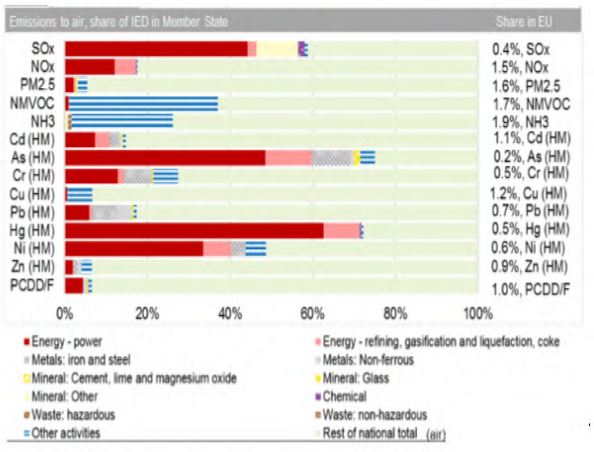
Best available techniques (BAT) reference documents and BAT conclusions are developed through the exchange of information between Member States, industrial associations, NGOs and the Commission. This ensures a good collaboration with stakeholders and a better application of the IED rules.

Thanks to the national competent authorities' efforts to apply the legally binding BAT conclusions and associated BAT emission levels in environmental permits, pollution has decreased considerably and continuously in the EU.

For example, by applying the recently adopted BAT emission levels for large combustion plants, emissions of sulphur dioxide will be cut on average by between 25 % and 81 %, nitrogen oxide between 8 % and 56 %, dust between 31 % and 78 % and mercury between 19 % and 71 % at EU level. The extent of the reduction depends on the situation in individual plants.

[62] European Commission, Industrial emissions policy country profile – Denmark.

Figure 16: Emissions to air from IED sectors and all other national total air emissions, Denmark (2015)



2019 priority actions

- Review permits to ensure that they comply with the newly adopted BAT conclusions.
- Strengthen control and enforcement to ensure compliance with the BAT conclusions.

Noise

The Environmental Noise Directive[63] provides for a common approach to avoiding, preventing and reducing the harmful effects of exposure to environmental noise.

Excessive noise from aircraft, railways and roads is one of the main causes of environmental health-related issues in the EU[64].

Based on a limited set of data[65], environmental noise causes around 100 premature deaths per year in Denmark, and is responsible for around 700 hospital admissions. Noise also disturbs the sleep of roughly 180 000 in Denmark. The noise mapping for the previous reporting round (reference year 2011) is complete as are the action plans (reference year 2013).

These instruments, adopted after a public consultation had been carried out, should include the measures to keep noise low or reduce it.

[63] Directive 2002/49/EC.

[64] WHO/JRC, Burden of disease from environmental noise, Fritschi, L., Brown, A.L., Kim, R., Schwela, D., Kephalopoulos, S. (eds), World Health Organisation, Regional Office for Europe, 2011, Copenhagen, Denmark.

[65] European Environment Agency, Noise Fact Sheets 2017.

Water quality and management

EU legislation and policy requires that the impact of pressures on transitional, coastal and fresh waters (including surface and ground waters) be significantly reduced. Achieving, maintaining or enhancing a good status of water bodies as defined by the Water Framework Directive will ensure that EU citizens benefit from good quality and safe drinking and bathing water. It will further ensure that the nutrient cycle (nitrogen and phosphorus) is managed in a more sustainable and resource-efficient way.

The existing EU water legislation[66] puts in place a protective framework to ensure high standards for all water bodies in the EU and addresses specific pollution sources (for example, from agriculture, urban areas and industrial activities). It also requires that the projected impacts of climate change are integrated into the corresponding planning instruments e.g. flood risk management plans and river basin management plans, including programme of measures which include the actions that Member States plan to take in order to achieve the environmental objectives.

Water Framework Directive

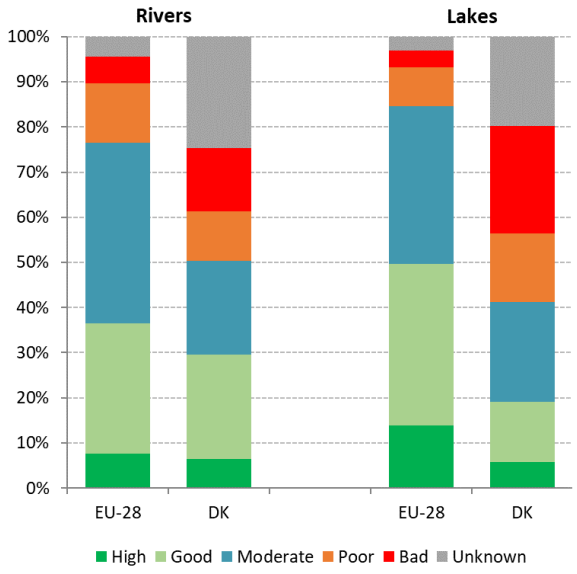
Denmark has adopted and reported the second generation of River Basin Management Plans under the Water Framework Directive and the European Commission has assessed the status and the development since the adoption of the first River Basin Management Plans, including suggested actions in the EIR report 2017.

The **most significant pressures** on surface water bodies overall were discharges not connected to sewerage network (49%), followed by dams, barriers and locks (26%), which was mainly applicable to river water bodies. Diffuse pollution from agriculture is not reported as a significant pressure overall for surface water bodies (4%). However, when it comes to coastal water bodies 98% have diffuse pollution from agriculture and 30% of lake water bodies. For **groundwater bodies the most significant pressure** is unknown anthropogenic pressure (25%) and pressures due to abstractions.

Organic pollution was the **most significant impact** on all surface water (49%), followed by altered habitats due to morphological changes (33%). For coastal water bodies the main impact was nutrient pollution affection 98% of water bodies and for lakes water bodies it was 62%. The most significant impact on ground water was chemical pollution (25%).

Overall it appears that there are gaps in the quality elements reported to be monitored in Denmark in relation to the **ecological status** and the **chemical status**.The ecological status/potential of surface water bodies is illustrated in Figure 17. It is difficult to compare the status between the first and second River Basin Management Plans due to the re-delineation of water bodies and change in assessment methods, nevertheless the overall picture indicates a deterioration in status/potential since the revised first River Basin Management Plans with 5-20% more water bodies in less than good status/potential in the second River Basin Management Plans, except coastal waters around Zealand, which has a slight improvement.

Figure 17: Ecological status or potential of surface water bodies in Denmark[67]



For **chemical status** changes have been minimal with a large majority of sites in unknown status (98.5% reduced from 99.3% in the first cycle), which is due to the fact that less than 1% of surface water bodies are monitored for chemical status. The proportion of surface water bodies with good chemical status is 0.8% and the proportion failing to achieve good chemical status is 0.7%.

The assessment of the chemical status of groundwater bodies shows that 44% of groundwater bodies are in good chemical status, 25% are failing good status and 31% are of unknown status.

[66] This includes the Bathing Waters Directive (2006/7/EC), the Urban Waste Water Treatment Directive (91/271/EEC) (on discharges of municipal and some industrial wastewaters), the Drinking Water Directive (98/83/EC) (on potable water quality), the Water Framework Directive (2000/60/EC) (on water resources management), the Nitrates Directive (91/676/EEC) and the Floods Directive (2007/60/EC).

[67]. EEA, WISE dashboard.

The number of groundwater bodies monitored for quantitative status increased slightly and the total groundwater body area failing good quantitative status decreased significantly from 42% to 2%. The water balance is calculated differently compared to the first River basin management Plans where the water balance was assessed by screening criterion of the maximum abstraction/exploitation of groundwater, which should not exceed 35% of the natural recharge of groundwater. This criterion was now changed to 30%.

There is a shortage of meaningful information reported regarding measures so it is not possible to judge whether progress has been made other than the indication that some measures have been completed. There is a clear financial commitment for the implementation of Programmes of Measures.

Nitrates Directive

To fulfil its obligations under the Nitrates Directive, Denmark applies mandatory measures on its whole territory. On water quality and nitrate concentrations, data show that progress has slowed in recent years. Denmark still has problems with nitrate concentrations, in particular in groundwater. It also still has problems with the eutrophication of surface waters. In addition, agricultural activities remain the main cause for Danish land-based nitrogen load to coastal waters. This is a particularly serious issue considering that approximately half of the country's rivers drain into the Baltic Sea is already largely eutrophic and strongly affected by nutrient pollution.

Denmark is changing its legislation towards a more targeted implementation system. Agricultural pressures and the existing water quality issues mean that Denmark must ensure that these changes are accompanied by clear environmental objectives and targets and effective enforcement mechanisms. This will ensure the necessary and timely reduction of nutrient pollution in Danish waters and in the Baltic Sea.

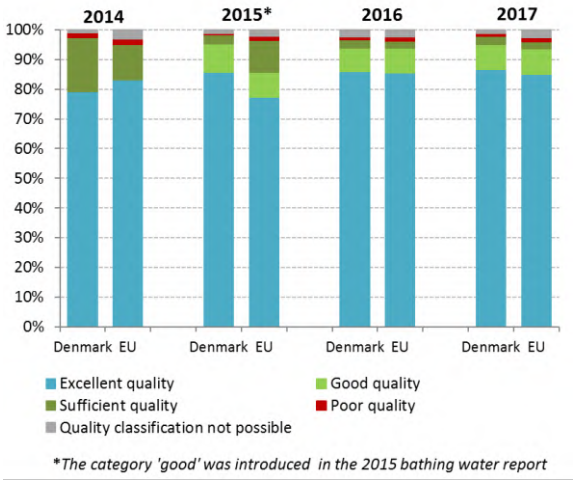
Drinking Water Directive

On drinking water, no new data are available since the 2017 EIR report[68].

Bathing Water Directive

Figure 18 shows that in 2017, out of the 1 029 Danish bathing waters, 86.7 % were of excellent quality, 8.5 % of good quality and 2.7 % of sufficient quality (85.9 %, 8 % and 2.9 % respectively in 2016). In 2017, there were 10 bathing waters of poor quality in Denmark[69]. Detailed information on the Danish bathing waters is available from a national portal[70] and via an interactive map viewer on the European Environment Agency's website[71].

Figure 18: Bathing water quality 2014–2017[72]



Urban Waste Water Treatment Directive

Denmark demonstrates excellent levels of compliance with the requirements of the Urban Waste Water Treatment Directive. Overall in Denmark, 100 % of waste water is collected, and 99.8 % of the load collected is subjected to secondary treatment. 95.4 % of the waste water load collected undergoes even more stringent treatment. Investment in water treatment in 2017 is greater than in previous years, but this increase in investment is expected to slow in the coming years[73].

Floods Directive

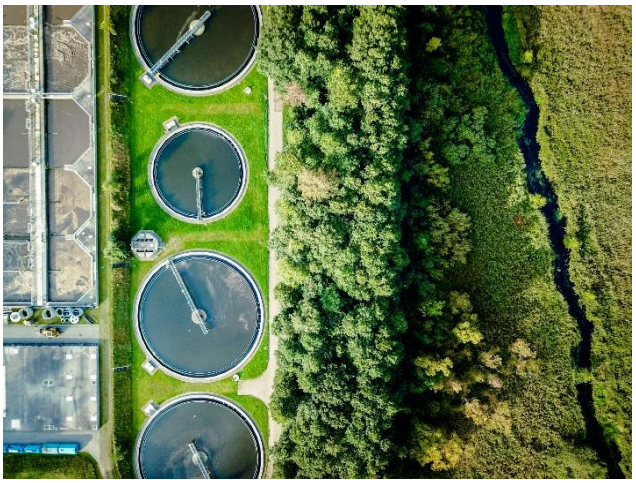
Significant investment needs still exist in Denmark to accelerate the implementation of the Water Framework Directive and the Floods Directive, such as the removal of obstacles to fish migration, renaturalisation of the flow of rivers, and various measures for flood prevention and mitigation.

The Floods Directive established a framework for the assessment and management of flood risks, aiming at the reduction of the adverse consequences associated with significant floods.

Denmark has adopted and reported its first Flood Risk Management Plans under the Directive and the European Commission conducted an assessment.

[68] Compliance with the Drinking Water Directive microbiological and chemical parameters as last reported was very high.
[69] European Environment Agency, European bathing water quality in 2016, 2017, p. 17.
[70] Badevandskvaliteten ved de danske strande i 2017.
[71] European Environment Agency, State of bathing waters.
[72] European Environment Agency, European bathing water quality in 2017, 2018, p. 21.
[73] European Commission, Ninth Report on the Implementation Status and the Programmes for Implementation of the Urban Waste Water Treatment Directive (COM(2017)749) and Commission Staff Working Document accompanying the report (SWD(2017)445).

The Commission's assessment found that good efforts were made with positive results in setting objectives and devising measures focusing on prevention, protection and preparedness. The assessment also showed that, as was the case for other Member States, Denmark's Flood Risk Management Plans do not yet include clearly prioritised measures and an as complete as possible estimation of the cost of measures with identification of specific sources of funding. In addition, there is scope for improving the integration of the flood risk management cycle including amongst the various levels of administration.



2019 priority actions

- Take steps in order to improve monitoring of surface waters by covering all relevant biological, physico-chemical and hydromorphological quality elements in all water categories and increase the proportion of water bodies covered by monitoring for River Basin Specific Pollutants.
- Complete the development of assessment methods for all biological quality elements in all water categories, including methods that are sensitive to nutrients in rivers and include hydromorphological quality elements in the classification of ecological status.
- Ensure that legislation addressing nutrients pollution from agriculture includes measures proportionate to the Danish agricultural pressures and water quality issues. The measures chosen to implement the Directives should improve water quality both in the short and long term.
- Consider to improve the integration of the flood risk management cycle including amongst the various levels of administration.

Chemicals

The EU seeks to ensure that by 2020 chemicals are produced and used in ways that minimise any significant adverse effects on human health and the environment. An EU strategy for a non-toxic environment that is conducive to innovation and to developing sustainable substitutes, including non-chemical options, is being prepared.

The EU's chemicals legislation[74] provides baseline protection for human health and the environment. It also ensures stability and predictability for businesses operating within the internal market.

In 2016, the European Chemicals Agency (ECHA) published a report on REACH and the CLP Regulation[75] that showed that enforcement activities are still evolving. Member States cooperate closely within the Forum for Exchange of Information on Enforcement[76]. This dialogue has shown that there is scope to increase the effectiveness of enforcement activities, particularly for registration obligations and safety data sheets where the level of non-compliance is still relatively high.

While progress has been made, there is room to further improve and harmonise enforcement activities across the EU, including controls on imported goods. Enforcement remains weak in some Member States, particularly for controls on imports and supply chain obligations. The enforcement architecture is complex in most EU countries and enforcement projects reveal differences in compliance between Member States.

A 2015 Commission study already emphasised the importance of harmonised market surveillance and enforcement when implementing REACH at Member State level, deeming it a critical success factor in the operation of a harmonised single market[77].

In March 2018, the Commission published an evaluation of REACH[78]. The evaluation concludes that REACH delivers on its objectives, but that progress made is slower than anticipated. In addition, the registration dossiers often are incomplete. The evaluation underlines the need to enhance enforcement by all actors, including registrants, downstream users and in particular for

[74] Principally for chemicals: REACH (OJ L 396, 30.12.2006, p.1.); for Classification, Labelling and Packaging, the CLP Regulation (: OJ L 252, 31.12.2006, p.1.), together with legislation on biocidal products and plant protection products.
[75] European Chemicals Agency, Report on the Operation of REACH and CLP 2016.
[76] ECHA, On the basis of the projects REF-1, REF-2 and REF-3.
[77] European Commission, Monitoring the Impacts of REACH on Innovation, Competitiveness and SMEs, Final Report, 2015.
[78] COM(2018) 116.

importers, to ensure a level playing field, meet the objectives of REACH and ensure consistency with the actions envisaged to improve environmental compliance and governance. Consistent reporting of Member State enforcement activities was considered important in that respect.

In Denmark, the Chemical Inspection Service at the Danish Environmental Protection Agency is the prime enforcement authority for legislation regulating chemicals. The main legislation regulating chemicals is the Danish Act on Chemical Substances and Products. In addition, chemicals are regulated by statutory orders and EU chemical regulations. Some parts of the regulations are enforced by other authorities.

The Chemical Inspection Service conducts enforcement campaigns every year for different chemical substances, products and articles. In addition, the Chemical Inspection Service receives and responds to complaints about chemical products from companies, NGOs, the general public, and other authorities[79].

Making cities more sustainable

EU policy on the urban environment encourages cities to put policies in place for sustainable urban planning and design. These should include innovative approaches to urban public transport and mobility, sustainable buildings, energy efficiency and urban biodiversity conservation.

The population living in urban areas in Europe is projected to rise to just over 80% by 2050[80]. Urban areas pose particular challenges for the environment and human health, but they also provide opportunities for using resources more efficiently. The EU encourages municipalities to become greener through initiatives such as the Green Capital Award[81], the Green Leaf Award[82] and the Green City Tool[83].

The Green City Tool, launched during the European Commission's Green Week 2018, allows cities to assess and benchmark their environmental performance. It also offers advice and recommendations with examples of good practice on how to green cities.

Financing greener cities

Denmark participates in the European Urban Development Network (UDN)[84]. This network includes more than 500 cities across the EU that are responsible for implementing integrated actions based on sustainable urban development strategies financed by the European Regional Development Fund (ERDF) in the 2014-2020 period.

One of the UDN initiatives supported by the ERDF is Urban Innovative Actions (UIA). UIAs are a way to test new and unproven solutions to address urban challenges. The total ERDF budget for UIAs is EUR 372 million for 2014-2020[85].

One of the UIA projects is called TUPPAC (Transforming Urban Planning Providing Autonomous Collective mobility). TUPPAC will receive EUR 3.4 million in funding, and is taking place in Albertslund in the suburbs of Copenhagen. The TUPPAC project will address the 'first-and-last-mile' challenge, the name given to the problem of public transport rarely stopping directly in front of the passenger's destination (whether that destination is work, home or a shop). The TUPPAC project will address this challenge via LOOP City — a collaboration between 10 municipalities on the outskirts of Copenhagen. In the years 2018-2024 a new light-rail system with 29 new stations will be built in LOOP City. Its goal is to encourage passengers to make use of public transport focusing on the physical environment and station proximity.

The project will address future challenges of urban transport related to the introduction of driverless technology. Driverless technology is developing fast and will disrupt urban mobility in the coming decades. But it also raises questions such as: how can autonomous vehicles be an integrated part of public transportation and how will they affect urban planning? The TUPPAC project will make it easier for completely new types of innovative mobility services to appear. It will achieve this by addressing the 'first-and-last-mile' challenge in proximity to the new light-rail stations being built.

Participation in EU urban initiatives and networks

Danish municipalities are generally involved in EU initiatives on environmental protection and climate

[79] ECHA, National Inspectorates - Denmark.
[80] European Commission, Pollution, by degree of urbanisation.
[81] European Commission, European Green Capital.
[82] European Commission, European Green Leaf Award.
[83] European Commission, Green City Tool.
[84] European Commission, The Urban Development Network.
[85] European Commission, Urban Innovative Actions.

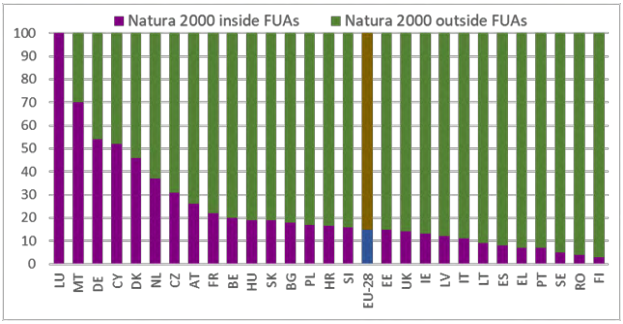
change.

Four Danish cities, communities and regions are involved in the URBACT initiative to support sustainable urban development. They are involved in 10 of URBACT's thematic networks[86].

Several Horizon 2020 network projects have also contributed to the sustainability of Danish cities. The CIVITAS project includes three municipalities representing Denmark in a common effort to achieve cleaner and better transport in cities[87].

Danish cities are also actively involved in initiatives such as Eurocities and the EU Covenant of Mayors. 37 Danish cities are involved with the EU Covenant of Mayors under the coordination of the central Denmark region, the KKR Zealand and Region Zealand. As of May 2018, Frederikshavn, Helsingør, Norddjurs, Ringkøbing-Skjern, Ringsted, Slagelse, Solrød, Sønderborg and Vordingborg have already submitted their 2020 action plans. The results of these action plans are now being monitored. Another 6 cities have at least presented their climate action plan and commitments for 2020 or 2030[88].

Figure 19: Proportion of Natura 2000 network in Functional Urban Areas (FUA) [89]



These urban initiatives and networks should be welcomed and encouraged, as they contribute to a better urban environment. In 2017, 12.7 % of the Danish population living in cities considered that their residential area was affected by pollution, grime or other environmental problems. This is an increase from 2015 and 2016 when 10.0 % of the Danish population living in cities were of this view. However, these figures are significantly lower than the EU-28 levels (20% in 2017, 18.9 % in 2016 and 19.2 % in 2015), and similar to the results seen in Sweden and Finland[90].

[86] URBACT, Associated Networks by country.
[87] European Commission, Horizon 2020 Civitas Project.
[88] Covenant of Mayors for Climate and Energy, Country signatories.
[89] European Commission, the 7th Report on Economic, Social and Territorial Cohesion, 2017, p. 121.
[90]. European Commission, Eurostat, Pollution, grime or other environmental problems by degree of urbanisation.

Nature and cities

More than 46 % of the Natura 2000 network in Denmark is within functional urban areas[91], well above the EU average of 15 % (see Figure 19).

Urban sprawl

Denmark had a weighted urban proliferation rate, at 3.04 UPU/m^2 [92] in 2009 compared to a European average (EU-28+4) of 1.64 UPU/m^2, having increased by 2 % from 2006 to 2009[93].

Traffic congestion and urban mobility

Traffic congestion is not one of the main environmental issues affecting Denmark. However, many subjects addressed in this report are to some extent related to traffic congestion, especially air quality and noise.

The total number of road vehicles in Denmark reached 2.8 million in 2015, increasing the rate of vehicles per 1 000 habitants from 494 in 2014 to 501 in 2015. This increase has resulted in more hours spent annually in road congestion by the average driver, from 21.5 hours in 2014 to 22.1 hours in 2016. Denmark is far below the UK, which is the EU's worst performer on this measure at 45.1 hours[94].

Road traffic intensity per unit of GDP in Denmark in 2014 was 248 vehicle kilometres per 1 000 USD, which is close to the OECD Europe average of 254 vehicle kilometres per 1 000 USD[95].

On urban mobility, in 2016 around 65 % of Danish employees commuted more than 5 km to work[96]. Private vehicles are the most frequently used mode of transport in Denmark, accounting for 60 % of all commuter trips in 2009. However, bicycles made up a remarkable share, accounting for more than 20 % of all trips. Public transport is also a major contributor, providing transport to 13 % of the commuters[97].

The modal split of passenger transport in 2015 shows that passenger cars accounted for 80.8 % of inland passenger transport in Denmark (EU-28 83.4 %). Buses and trolley buses accounted for around 9.9 % (EU-28 9.1 %) and trains for 9.3 % (EU-28 7.6 %)[98].

[91] European Commission, Definition of Functional Urban Areas.
[92] Urban Permeation Units measure the size of the built-up area as well as its degree of dispersion throughout the region.
[93] EEA, Urban Sprawl in Europe, Annex I, 2014, pp.4-5.
[94] European Commission, Hours spent in road congestion annually.
[95] OECD, Road traffic intensity per unit of GDP, 2014 or latest available year », in Sectoral and Economic Trends of Environmental Significance, OECD publications, Paris, 2015.
[96] Statistics Denmark, Employed persons (end November 2016) by area of workplace, time, commuting distance and sex.
[97] Danish Ministry of Transport, The Danish Transport System, Facts and Figures, 2011.
[98] Eurostat, Passenger transport Statistics by modal split.

Part II: Enabling framework: implementation tools

4. Green taxation, green public procurement, environmental funding and investments

Green taxation and environmentally harmful subsidies

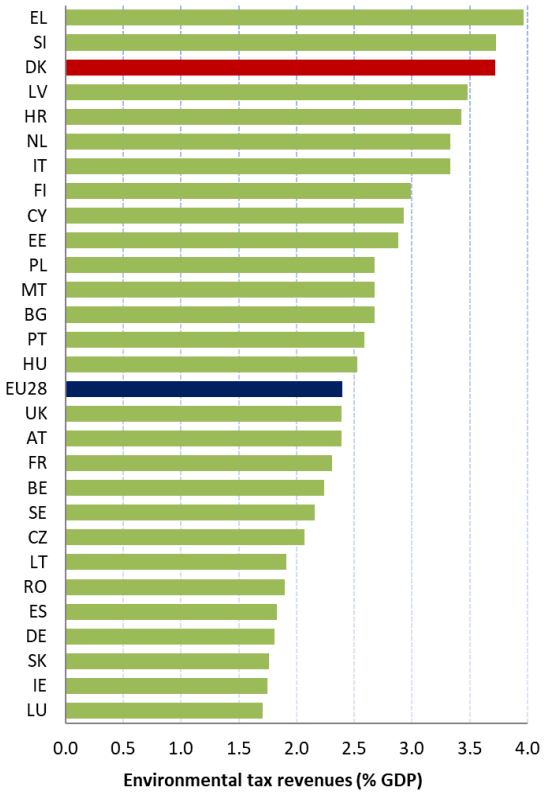
Financial incentives, taxation and other economic instruments are effective and efficient ways to meet environmental policy objectives. The circular economy action plan encourages their use. Environmentally harmful subsidies are monitored in the context of the European Semester and the energy union governance process.

Denmark's revenues from environmentally relevant taxes remain among the highest in the EU. Environmental taxes accounted for 3.72 % of GDP in 2017 (EU-28 average: 2.4 %) as shown in Figure 20. In the same year, energy taxes accounted for 2 % of GDP against an EU average of 1.84 %[99]. Environmental tax revenues in 2017 were 7.98 % of total revenues from taxes and social-security contributions (higher than the EU-28 average of 5.97 %).

The structure of taxation in Denmark shows the share of revenues from labour taxation in total tax revenues is high, at 50.7 % in 2016. The implicit tax burden on labour in 2016 was 34.6 %[100]. Consumption taxes remained relatively low (31.1 %, 19th in the EU-28). This suggests there is considerable potential to shift taxes from labour to consumption and in particular to environmentally harmful consumption in cases where charges and fees are the right instrument.

The Commission has repeatedly stressed in the European Semester that taxation on pollution and taxation to combat climate change in Denmark is higher than elsewhere in Europe. However, the Commission has also pointed out that previous increases in the duty on emissions of nitrogen oxides are being rolled back[101]. One of the most effective environmental taxes in the country is the pesticide tax, which has helped reduce the load of pesticides on the environment and human health by 40 % between 2011 and 2016[102]. Another environmentally beneficial tax is the animal feed mineral-phosphorus tax, which has helped reduce the consumption of mineral phosphate in animal feeds by 15 % since 2005. However, the tax on phosphorus might have been environmentally and economically more effective if it applied to all sources, including mineral fertilisers[103].

Figure 20: Environmental tax revenues as % of GDP, 2017[104]



Meanwhile, fossil fuel subsidies fell in the past decade, thanks to the phasing out of indirect tax subsidy for diesel, which has a reduced energy duty compared to petrol[105]. In 2016, fossil fuel subsidies, essentially the the reduced energy duty on diesel, amounted to EUR 1.2 billion.

However, little progress has been made on reducing the 'diesel differential' (the difference in the price of diesel versus petrol) since 2005. In 2016, there was still a 46 % gap between petrol and diesel tax rates, one of the highest diesel differentials in the EU[106]. However, it

[99] Eurostat, Environmental tax revenues, 2018.
[100] European Commission, Taxation Trends Report, 2017.
[101] SWD(2018) 203., p.39.
[102] Evaluering af den differentierede pesticidafgift.
[103] IEEP, Animal feed mineral phosphorus tax in Denmark.
[104] Eurostat, Environmental tax revenues, 2018.
[105] OECD, Inventory of Support Measures for Fossil Fuels, 2018.
[106] European Environment Agency, Environmental taxation and EU environmental policies, 2016, p. 27.

should be noted that a compensatory fee or countervailing charge for certain diesel vehicles is applied in Denmark that on average offsets the 'diesel differential'. Excise tax rates levied on petrol and diesel in 2016 were similar to those levied in 2015 (EUR 0.61 per litre for petrol and EUR 0.44 for diesel)[107].

The tax treatment of company cars is not cause for concern in Denmark. New tax rules for company cars were introduced in 2018. The most significant of these increased annual road tax, cut taxes on electric cars[108].

Denmark imposes CO_2-based motor vehicle taxes. The annual circulation tax (also known as the green owners' tax) is based on the car's average fuel consumption per kilometre. Biogas- and natural gas-powered vehicles have the same tax treatment as diesel cars, while petrol cars pay more on average[109]. Incentives to purchase cars with lower CO_2 emissions were common in 2016. Some of these incentives were linked to annual circulation taxes, road tolls, congestion zones or low-emission zone charges. Other incentives were related to the acquisition of cars or use of public infrastructure[110].

This EIR 2019 report also suggests that the tax system can be used for environmental policy while simultaneously raising revenue. In particular (see Chapter 3 on Air Quality) more equal tax treatment of transport fuels (for example, diesel) would improve the environment and create incentives to reduce nitrogen dioxide pollution.

Denmark has adjusted an agreement on future tax conditions for electric cars, plug-in hybrid cars and fuel-cell cars by more slowly phasing in taxes on electric, plug-in hybrid and hydrogen cars. One of the main elements of this adjustment is in the registration fee for electric cars, which will now remain at 20 % of the level of ordinary fees (plus a basic deduction of 10 000 DKK) until 5 000 of these cars are newly registered or no later than 1 January 2019. After that, the fee will be gradually increased annually until 2022 when it is fully phased in. In 2017-2021 there will be a temporary reduction in the registration fee of DKK 1 700 per kWh battery capacity (for batteries with a capacity not exceeding 45 kWh). The phase-in schemes for plug-in hybrid cars and hydrogen cars are similar to the phase-in scheme for electric cars.

The use of alternative fuels in new passenger cars sold in Denmark has been increasing in recent years. In 2015, the number of new passenger cars using alternative fuels was 10 times greater than in 2011. However, 2016 was the first year since 2013 when the market share of alternative-fuel passenger cars fell (from 2.42 % in 2015 to 0.66 %). The decrease is mainly because the subsidy on electric cars was removed in 2015. The Danish government wants to stop the sale of new petrol and diesel cars in 2030 and plug-in-hybrid cars in 2035. The Government is also working for a climate neutral (net zero emissions) society by 2050 at the latest, meaning that Denmark will absorb at least as much greenhouse gas as emitted[111].

Green public procurement

The EU green public procurement policies encourage Member States to take further steps to apply green procurement criteria to at least 50 % of public tenders. The European Commission is helping to increase the use of public procurement as a strategic tool to support environmental protection.

The purchasing power of public procurement amounts to around EUR 1.8 trillion in the EU (approximately 14% of GDP). A substantial proportion of this money goes to sectors with a high environmental impact such as construction or transport. Therefore, green public procurement (GPP) can help to significantly lower the negative impact of public spending on the environment and can help support sustainable innovative businesses. The Commission has proposed EU GPP criteria[112].

[107]European Commission, Search tax.
[108] Fleet Europe, Major changes to company car taxation in Europe, 2018.
[109] ACEA, Co2 Based Motor Vehicle Taxes in the EU.
[110] European Environmental Agency, Appropriate taxes and incentives do affect purchases of new cars, 2018.

[111] European Commission, Transport in the European Union Current Trends and Issues, 2018, pp.27-28.
[112]In the Communication 'Public procurement for a better environment' (COM (2008) 400) the Commission recommended the creation of a process for setting common GPP criteria. The basic concept of GPP relies on having clear, verifiable, justifiable and ambitious

A national strategy on GPP is being implemented as part of the government strategy on 'intelligent public procurement'. Denmark has adopted an indicative political target that 50 % of all public procurement should be green.

Mandatory rules on GPP have been drawn up for purchases of wood and wood-based products; energy-using products; and road transport vehicles. The Danish government recommends that EU GPP criteria be used for the product groups where there is no national guidance.

A national task force was launched in 2016 with the aim of helping public institutions (municipalities) to implement GPP. The national task force is supplementing the Partnership for Green Public Procurement and a Forum on Sustainable Purchasing.

To help procurers assess the total cost of ownership, specific tools have been developed in Denmark for 13 different product groups. These product groups are computers, computer displays, multi-function devices, servers, storage devices, projectors, large network equipment, small network equipment, UPS, add-on bidets, lighting, self-service machines and fridges and freezers. More tools are developed as a part of the government's Strategy for circular economy.

The Danish government conducted a national-level investigation of GPP in 2013. The report covered nine of the product areas that are subject to the 50 % target. It published a report on this investigation in 2016. The report finds that in 24 % of the tenders covered all relevant green criteria were applied, and in 71 % of the tenders one or more criteria were applied.

A separate study on GPP by the European Parliament shows that Denmark is amongst the frontrunners in the EU on the implementation of its GPP national action plan[113].

Environmental funding and investments

European Structural and Investment Fund (ESIF) rules oblige Member States to promote environment and climate in their funding strategies and programmes for economic, social and territorial cohesion, rural development and maritime policy.

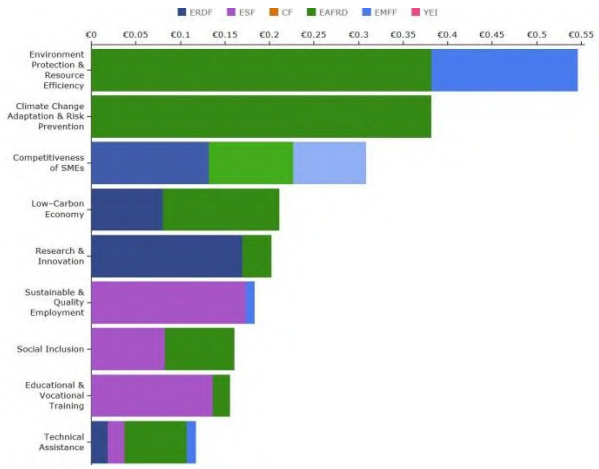
Achieving sustainability involves mobilising public and private financing sources[114]. Use of the European Structural and Investment Funds (ESIFs)[115] is essential if countries are to achieve their environmental goals and integrate these into other policy areas. Other instruments such as Horizon 2020, the LIFE programme[116] and the European Fund for Strategic Investments (EFSI)[117] may also support the implementation and spread of good practices.

Making good use of ESIF[118] is essential to achieve the environmental goals and integrate these into other policy areas. Other instruments such as the Horizon 2020, the LIFE programme and the EFSI[119] may also support implementation and spread of good practice.

In the 2017 Special Eurobarometer[120] on attitudes of EU citizens towards the environment, 87 % of Danes supported greater EU investment in environmental protection in general (the EU-28 average was 85 %).

European Structural and Investment Funds 2014-2020

Figure 21: ESIF 2014-2020 – EU allocation by theme, Denmark (EUR billion)[121]



Through four national programmes, Denmark has been allocated EUR 1.25 billion from ESIF funds for 2014-2020. This means that, with its national contribution of EUR 722

environmental criteria for products and services, based on a life-cycle approach and scientific evidence base.

[113] European Parliament, Green Public Procurement and the Action Plan for the Circular Economy, 2017, pp. 79-80.

[114] See, for example, Action plan on financing sustainable growth (COM(2018) 97).

[115] i.e. the European Regional Development Fund (ERDF), the Cohesion Fund (CF), the European Social Fund (ESF), the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF). The ERDF, the CF and the ESF are referred to as the 'cohesion policy funds'.

[116] European Commission, LIFE programme.

[117] European Investment Bank, European Fund for Strategic Investments, 2016.

[118] ESIF comprises five funds — the European Regional Development Funds (ERDF), the Cohesion Fund (CF), the European Social Fund (ESF), the European Agricultural Fund for Rural Development (EAFRD), and the European Maritime and Fisheries Fund (EMFF). The ERDF, the CF and the ESF together form the Cohesion Policy funds.

[119] European Investment Bank, European Fund for Strategic Investments, 2016.

[120] European Commission, Special 468 Eurobarometer, 'Attitudes of European citizens towards the environment', 2017.

[121] European Commission, European Structural and Investment Funds Data by Country.

million, Denmark has a total budget of EUR 1.97 billion to invest in various areas, such as SME support to social inclusion, the low-carbon economy and aquaculture.

Cohesion policy

For 2014-2020, Denmark manages two operational programmes under EU cohesion policy. Of these, one will receive funding from the European Regional Development Fund (ERDF) and one from the European Social Fund (ESF).

For 2014-2020, Denmark has been allocated around EUR 553 million in total cohesion policy funding. This money is being distributed as follows:

- EUR 84 million for transition regions (Zealand);
- EUR 329 million for more developed regions (northern Jutland, mid-Jutland, southern Denmark, the capital region (greater Copenhagen) and Bornholm);
- EUR 140 million for European Territorial Cooperation.

Of this 553 million, the ESF in Denmark will represent a minimum of EUR 206.6 million. The precise amount of ESF funding will be set in light of the specific challenges the country needs to address in the areas covered by the ESF.

The EU investments will boost competitiveness. They will also promote employment and growth by supporting innovation, the low-carbon economy, training and education. In addition, the EU investments will promote entrepreneurship, fight social exclusion, and help build an environmentally-friendly and resource-efficient economy.

Rural development

Denmark faces several environmental pressures in rural areas. These pressures are mainly caused by emissions due to intensive crop and livestock production.

The Danish Rural Development Programme (RDP) outlines the country's priorities for using EUR 1.191 billion available for 2014-2020. This funding includes EUR 919 million from the EAFRD, EUR 268 million in national co-funding, and EUR 4 million of additional national funding top-ups.

The RDP plans to provide funding support for investments in the following areas.

- At farm level, support is available for the installation of new, more resource-efficient equipment in stables for animal production. For example, this equipment might lead to: more precise feeding of animals; lower electricity and water consumption; reduced emissions; and better animal welfare. Support is also provided for new farm machinery that allows for more precise (and therefore reduced) application of fertiliser and pesticides. Machinery with lower fuel consumption (and therefore lower emissions) is also eligible for support. In total, there are plans to support 2 400 projects during the programming period.
- Another important area that will receive support is the creation of wetlands. The aim is for these wetlands to extract nitrogen and phosphorous from drain water before it runs into lakes, rivers and the sea. Two types of wetlands are planned: large wetlands established mainly by municipalities and involving several landowners, and constructed wetlands at the level of individual farms. The aim is to establish 1 000 constructed wetlands.
- Support is also being given to projects for extensification of farming in low-lying areas and peaty or organogenic soils.
- Other types of projects eligible for funding are: (i) the preparation of Natura 2000 areas for grazing, and (ii) the establishment of areas to improve the conditions for species listed in Annex IV of the Habitats Directive.
- Afforestation is another initiative to enhance the environment and promote the attractiveness of the landscape. In total, the RDP contains plans to plant 7 500 ha of new forest.

The RDP also contains plans for area-based support schemes, two of which are discussed below.

- The biggest measure under the area-based support schemes is support to organic farming with about 250.000 ha covered by organic farming methods in 2017, an increase of 100.000 ha in 10 years. The support is provided for conversion to organic farming and for maintaining organic farming practices.
- The other primary area-related scheme is support for the management by grazing or mowing of grassland and nature areas. The targeted areas for this scheme are Natura 2000 areas, high-nature-value (HNV) areas, and low lying organogenic lowland and wetland areas. The grassland management scheme helps fulfil the Natura 2000 plans and the EU objective of maintaining biodiversity. Denmark's target is to have at least 90 000 ha contracted under this scheme primarily located within the Nature 2000 areas by 2020.

To ensure that these different environmental schemes are well understood and correctly implemented, Denmark has provided training for advisors and local authorities since 2015. The current training is planned for a three year period from 2017-2019 as a measure in the government agreement on Nature Package from 2016. In total more than 1 600 people have received training in management of nature and nature friendly farming

methods in the period from 2015-2018..

European Maritime and Fisheries Fund

For 2014-2020, Denmark's investment package for its maritime, fisheries and aquaculture sectors totalled EUR 267.6 million, including EUR 208.4 million of EU funds.

One of the main objectives of the Danish programme is to promote implementation of the discard ban. Support from the European Maritime and Fisheries Fund will therefore target investments that aim to decrease and handle unwanted catches. Other areas that will receive significant support are: (i) the protection of marine biodiversity, and (ii) the restoration of rivers to protect biodiversity and facilitate the migration of fish.

The Connecting Europe Facility (CEF)

The CEF is a key EU funding instrument developed specifically to direct investment towards European transport, energy and digital infrastructure to address identified missing links and bottlenecks and promote sustainability.

By the end of 2017, Denmark had signed agreements for EUR 668 million for projects under the CEF[122].

Horizon 2020

Denmark has benefited from Horizon 2020 funding since the programme started in 2014. As of January 2019, 681 participants have been granted a maximum amount of EUR 282.3 million for projects from the Societal Challenges work programmes dealing with environmental issues[123] [124].

In addition to the abovementioned work programmes, climate and biodiversity expenditure is present across the entire Horizon 2020. In Denmark, projects accepted for funding in all Horizon 2020 working programmes until December 2018 included EUR 284 million destined to climate action (28.5 % of the total Horizon 2020 contribution to the country) and EUR 64 million for biodiversity-related actions (6.5 % of the Horizon 2020 contribution to the country)[125].

[122] European Commission, European Semester Country Report for Denmark, 2018, p. 13.
[123] European Commission own calculations based on CORDA (COmmon Research DAta Warehouse). A maximum grant amount is the maximum grant amount decided by the Commission. It normally corresponds to the requested grant, but it may be lower.
[124] i.e. (ii) Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy; (iii) Secure, clean and efficient energy; (iv) Smart, green and integrated transport; and (v) Climate action, environment, resource efficiency and raw materials.
[125] European Commission own calculations based on CORDA (COmmon Research DAta Warehouse).

LIFE programme

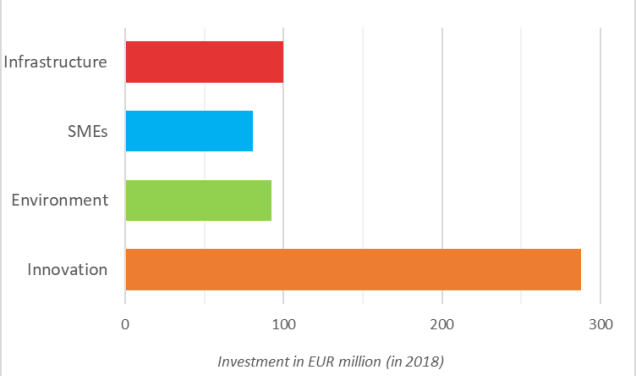
The LIFE programme is the EU's funding instrument for the environment and climate. Since its launch in 1992, the LIFE programme has co-financed a total of 95 projects in Denmark[126]. Altogether, these projects account for a total investment of EUR 242 million, of which EUR 108 million has been provided by the EU. Of these projects, 57 have focused on environmental innovation; 35 have focused on nature conservation and biodiversity; two have focused on information and communication; and one has focused on technical assistance.

For 2014-2017, the EU has allocated EUR 13 million to Danish projects[127]. RigKilde-LIFE is one of these projects. It involves actions to restore and conserve petrifying springs, calcareous fens and alkaline fens in Denmark. The contribution requested from the EU for Rigkilde-LIFE is more than EUR 3.5 million[128].

European Investment Bank

European Investment Bank (EIB) loans in Denmark amounted to nearly EUR 3.5 billion (DKK 26 billion) in 2013-2017[129]. In 2018 alone, the EIB Group (the European Investment Bank and the European Investment Fund)[130] loaned Danish businesses and public institutions about EUR 560.8 million, as shown in Figure 22. Of this amount, EUR 92.4 million (16 %) was directly invested in environment-related projects.

Figure 22: EIB loans to Denmark in 2018[131]



In 2018, the EIB signed a EUR 100 million loan agreement for the development of two residential complexes with nearly-zero-energy-building (NZEB) standards. The project comprises six buildings, which together will provide 660 new apartments in the Copenhagen metropolitan area. The new buildings will already comply

[126] European Commission, LIFE in Denmark, 2017.
[127] Commission services based on data provided by EASME.
[128] European Commission, RigKilde-LIFE.
[129] European Investment Bank, 2017 — a record year in Denmark, 2018.
[130] The EIB Group includes EIB and EFSI investments and loans.
[131] EIB, Denmark and the EIB, 2018.

with the future NZEB requirements for Denmark, as they will have significantly lower net primary energy consumption than current Danish NZEB standards. The average value for energy consumption in these new apartments is expected to be around 18 kWh per m^2 per year. It is expected that the project will yield overall primary energy savings of 764 MWh/year (for all six buildings) when compared with the existing building standards regulation.

European Fund for Strategic Investments

The European Fund for Strategic Investments is an initiative to help overcome the current investment gap in the EU. As of January 2019, it has mobilised EUR 748 million in Denmark, and the secondary investment triggered by this is expected to be EUR 4.6 billion[132].

One of the investment funds supported by the EFSI is an EFSI infrastructure fund that invests in large energy-related projects, with a focus on offshore wind, biomass and electricity transmission, mainly in northern and western Europe. This will benefit Denmark, which has a variety of such offshore projects.

National environmental financing

Danish government spending on environmental protection in 2016 was EUR 1.7 billion, a 1 % increase from 2015[133]. 6 % of these payments were allocated to waste management activities (the average in the EU was 49.7 %). EUR 25.7 million was allocated to wastewater management (2.2 % of the EUR 1.7 billion total) and EUR 144.8 million to pollution abatement (12.4 % of the EUR 1.7 billion total). EUR 561.2 million of environmental expenditure was allocated to the protection of biodiversity and landscape (48 % of the EUR 1.7 billion total). Between 2012 and 2016, general government funding for environmental protection was EUR 5.8 billion[134].

Total spending (both private and public) on environmental protection in Denmark came to EUR 5.83 billion in 2015, a fall of 2.5 % from 2013[135]. 20.3 % of these payments came from the public sector (the average in the EU is 26.3 %), and 45.9 % came from business.

Green infrastructure initiatives (such as afforestation, carbon-wetlands and wetlands) are financed through EARDF (see above) measures at 75-100 %. Other initiatives, such as hedgerows, are financed entirely nationally.

[132] European Investment Bank, EFSI project map.
[133] Eurostat, General Government Expenditure by function, 2018.
[134] Eurostat, General Government Expenditure by function, 2018.
[135] Eurostat, National expenditure on environmental protection by institutional sector.

5. Strengthening environmental governance

Information, public participation and access to justice

Citizens can more effectively protect the environment if they can rely on the three 'pillars' of the Aarhus Convention:
(i) access to information;
(ii) public participation in decision making; and
(iii) access to justice in environmental matters.

It is of crucial importance to public authorities, the public and business that environmental information is shared efficiently and effectively[136]. Public participation allows authorities to make decisions that take public concerns into account. Access to justice is a set of guarantees that allows citizens and NGOs to use national courts to protect the environment[137]. It includes the right to bring legal challenges ('legal standing')[138].

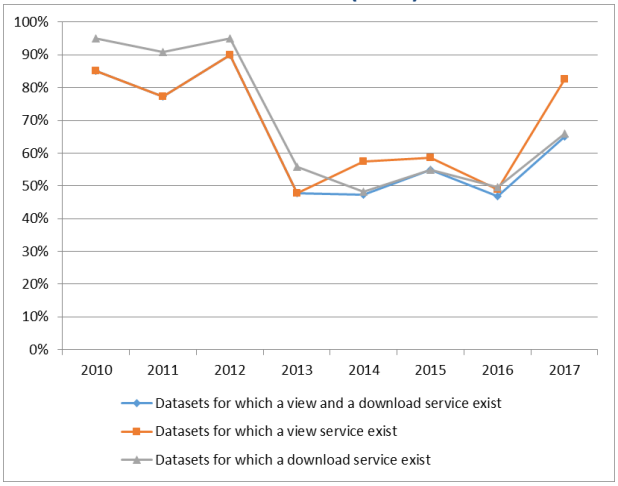
Environmental information

In Denmark, environmental information is provided by a number of different organisations. This has created a number of online portals that are not strongly interconnected – each online portal has its own identity and approach. The official Danish Natural Environment Portal (Danmarks Miljøportal, www.miljoeportal.dk) explicitly caters for different types of users. The Danish Environmental Protection Agency covers a broad number of environmental subjects in its portal (mst.dk). Denmark's Agency for Data Supply and Efficiency maintains an INSPIRE-compliant metadata portal (geodata-info.dk).

Environmental information is easier to access for certain environmental topics. For example, there is a lot of information available on air quality, whereas less information is available for other areas. Although the Danish government has created a central official environmental data portal, it does not contain all of Denmark's officially available information: the user still needs to search for certain data on the website of the Danish Environmental Protection Agency.

Denmark's performance on the implementation of the INSPIRE Directive leaves room for improvement. Its performance was reviewed based on its 2016 implementation report[139] and its most recent monitoring data from 2017[140]. Denmark has made good progress in coordination, data policies, dataset identification and documentation of data. Additional efforts are needed to make data accessible through services. More effort is also needed (and is indeed underway) to prioritise environmental datasets, in particular those identified as high-value spatial datasets for the implementation of environmental legislation[141].

Figure 23: Access to spatial data through view and download services in Denmark (2017)



Public participation

Denmark has mainly regulated public participation in decision making through the Danish Environmental Assessment Act and some sectoral legislation. The National Planning Law also contains provisions governing the involvement of the public in local planning. These provisions require stakeholder consultation; publication of plans with time to consult in advance; minimum consultation periods; consideration of input; and publication of comments and revisions. The 2017 Eurobarometer[142] shows there is a strong agreement in Denmark (88 % of respondents) that an individual can

[136] The Aarhus Convention, the Access to Environmental Information Directive, 2003/4/EC and the INSPIRE Directive, 2007/2 together create a legal foundation for the sharing of environmental information between public authorities and with the public. This EIR focuses on INSPIRE.
[137] The guarantees are explained in Commission Notice on access to justice in environmental matters, OJL 275, 18.8.2017 and a related Citizen's Guide.
[138] This EIR looks at how well Member States explain access to justice rights to the public, and at legal standing and other major barriers to bringing cases on nature and air pollution.

[139] INSPIRE DK country sheet 2017.
[140] INSPIRE, Monitoring dashboard.
[141] List of high value spatial data sets.
[142] European Commission, Special 468 Eurobarometer, "Attitudes of European citizens towards the environment", 2017.

play a role in protecting the environment. This percentage is largely unchanged compared to 2014.

Access to justice

Denmark provides clear, user-friendly information to the public about access-to-justice rights. It provides this information through the MEF website, a joint website created by two state bodies, the Environment and Food Appeals Board and the Energy Appeals Board. Denmark has relatively liberal legal standing rights, which make it possible for individuals and/or NGOs to bring both nature and air pollution cases to court.

2019 priority action

- Improve access to spatial data and services by making stronger linkages between the country INSPIRE portals , identify and document all spatial datasets required to implement environmental law, and make the data and documentation at least accessible *'as is'* to other public authorities and the public through the digital services envisaged in the INSPIRE Directive.

Compliance assurance

Environmental compliance assurance covers all the work undertaken by public authorities to ensure that industries, farmers and others fulfil their obligations to protect water, air and nature, and manage waste[143]. It includes support measures provided by the authorities, such as:
(i) compliance promotion[144];
(ii) inspections and other checks that they carry out, i.e. compliance monitoring[145]; and
(iii) the steps that they take to stop breaches, impose sanctions and require damage to be remedied, i.e. enforcement[146].
Citizen science and complaints enable authorities to focus their efforts better. Environmental liability[147] ensures that the polluter pays to remedy any damage.

Compliance promotion and monitoring

Online information is given to farmers on how to comply with obligations on nitrates and nature. The quality of this information is an indicator of how actively authorities promote compliance in areas with serious implementation gaps. Detailed information is available to Danish farmers on their obligations when using fertiliser and storing manure in nitrate vulnerable zones[148]. Online information is also available to Danish farmers about their nature obligations[149].

Major industrial installations can present serious pollution risks. Public authorities are required to have plans to inspect these installations and to make individual inspection reports available to the public[150]. Denmark publishes both plans[151] and reports[152] online.

Citizen science and complaint handling

Engaging the general public through citizen science can promote knowledge about the environment and help the authorities in their work. The 'Biodiversity Now'[153] project uses citizen volunteers to track biodiversity in Denmark via a mobile app. The availability of clear online information about how to make a complaint is an indicator of how responsive authorities are to complaints from the public. Denmark clearly explains to the general public how to submit complaints about environmental problems, for example on the citizen portals for pollution[154], agricultural pollution[155], noise[156], and waste[157].

Enforcement

When monitoring identifies problems, a range of responses may be appropriate. The Danish government makes available reports that provide an overview of administrative warnings and the application of sanctions[158]. It also publishes statistics on environmental crimes[159]. However, there is no published information on responses to cross-compliance breaches on nitrates and nature.

Tackling waste, wildlife crimes and other environmental offences is especially challenging. It requires close cooperation between inspectors, customs authorities, police and prosecutors. Following a 2011 report by the Environmental Protection Agency giving guidance to

[143] The concept is explained in detail in the Communication on 'EU actions to improve environmental compliance and governance' COM(2018)10 and the related Commission Staff Working Document, SWD(2018)10.
[144] This EIR focuses on the help given to farmers to comply with nature and nitrates legislation.
[145] This EIR focuses on inspections of major industrial installations.
[146] This EIR focuses on the availability of enforcement data and co-ordination between authorities to tackle environmental crime.
[147] Directive 2004/35/CE, creates the framework.
[148] Ministry of Environment and Food of Denmark, Gødningsplan.
[149] Ministry of Environment and Food of Denmark, Beskyttelse af Natura 2000-områderne.
[150] Article 23, Directive, 2010/75/EU.
[151] Ministry of Environment and Food of Denmark, Den fælles kontrolstrategi – kontrol baseret på tillid, 2017.
[152] Miljøministeren og KL's aftale om minimumsfrekvenser for samlede tilsyn med virksomheder og landbrug.
[153] Projekt Biodiversitet Nu.
[154] Borger, Industri og forurening.
[155] Borger, Landbrug og forurening.
[156] Ministry of Environment and Food of Denmark, Hvem kan jeg klage til?
[157] Borger, Affald.
[158] Ministry of Environment and Food of Denmark, Digital MiljøAdministration.
[159] Danmarks Statistik, Domme.

strengthen inter-agency cooperation[160], the Danish Attorney General drew up guidelines on the prosecution of environmental crimes. These guidelines aim to coordinate the roles of the police, the relevant administrative authorities and the prosecuting authority[161].

Denmark's consistent culture of transparency in environmental-compliance assurance can be considered as a good practice.

Environmental liability

The Environmental Liability Directive (ELD) establishes a framework based on the 'polluter pays' principle to prevent and remedy environmental damage. The 2017 EIR focused on better information on environmental damage, financial security and guidance. The Commission is still collecting evidence on the progress made in other areas.

2019 priority actions

- Better inform the public about compliance promotion, monitoring and enforcement.
- Take further steps to encourage the insurance industry to further develop and popularize insurance instruments covering environmental damage under the ELD.
- Improve financial security for liabilities and ELD-guidance and publish information on environmental damage.
- Publish information on the outcome of enforcement action and on the follow-up to detected cross-compliance breaches on nitrates and nature.

Effectiveness of environmental administrations

Those involved in implementing environmental legislation at EU, national, regional and local levels need to have the knowledge, tools and capacity to ensure that the legislation and the governance of the enforcement process bring about the intended benefits.

Administrative capacity and quality

Central, regional and local administrations must have the ability to carry out their own tasks and work effectively with each other within a system of multi-level governance.

In order to ensure effective environmental governance, environmental authorities need staff with the appropriate administrative and technical knowledge and skills. With the EIR 2017, the Commission has introduced TAIEX-EIR P2P as a new instrument facilitating peer-learning between experts from the environmental authorities of Member States.

Denmark has participated in a number of TAIEX-EIR P2P events, some of which are described below.

- A TAIEX-EIR P2P study visit to Belgium by experts working in Danish municipal waste took place on 24–25 September 2018. The purpose of the visit was to learn about networks for waste prevention, waste reuse, waste repair, and waste recycling in Belgian regions and municipalities.
- Experts from the competent authorities of the Netherlands and Denmark shared their experiences from the Nordic-Baltic network of EU Timber Regulation competent authorities (EUTRCAs) in a TAIEX-EIR peer-to-peer workshop in 2018. The workshop aimed to strengthen cooperation among the competent authorities from eight Mediterranean EU Member States to improve and harmonise implementation of the EU Timber Regulation in the Mediterranean region.
- A TAIEX-EIR P2P workshop was held in Bratislava on 2–3 July 2018. The workshop was attended by experts from Slovakia, Hungary, Czech Republic, Estonia, Latvia, Lithuania, Germany, Belgium, Poland, Ireland, United Kingdom, Denmark and Bulgaria. At the workshop, experts exchanged knowledge and experience on effective measures and good practices in reducing emissions from domestic heating.

Coordination and integration

As mentioned in the 2017 EIR, the transposition of the revised Environmental Impact Assessment (EIA) Directive[162] 2014/52/EU provides an opportunity for countries to streamline their regulatory framework on environmental assessments.

Denmark did not meet the May 2017 deadline for full transposition of the EIA Directive and the SEA-Directive in a new Environmental Impact Assessment Act (EIA Act). However, Denmark has now fully transposed the revised Directive.

The Commission encourages the streamlining of environmental assessments to reduce duplication and avoid overlaps in environmental assessments for projects. Streamlining helps to reduce unnecessary administrative burden. It also accelerates decision making, without compromising the quality of the

[160] Ministry of Environment, Kommunernes, miljøcentrenes og politiets håndhævelse af miljølovgivningen, 2011.
[161] Miljø-Behandling af sager om overtrædelse af miljølovgivningen.
[162] Directive 2014/52/EU.

environmental assessment procedure[163]. Denmark has introduced a streamlined procedure for assessments under the EIA and Habitats Directives.

Adaptability, reform dynamics and innovation (eGovernment)

On digital public services, Denmark performs very well. The country is a frontrunner in the delivery of digital public services among EU countries with a score of 73.2/100 based on Europe's Digital Progress Report 2017, higher than the EU28 average (57.5/100)[164]. In the DESI Report 2018, Denmark had a score of 73 out of 100 on digital public services, higher than the EU average of 58[165].

In terms of open data, Denmark continued to make considerable progress over the last year (after launching a new platform). Thanks to a high score in their completeness of online services (94 out of 100)[166], Denmark provides a good and user-friendly framework for eGovernment service for its citizens.

Enabling financing and effective use of funds

The Danish authorities, at national and regional level, have good experience in the management of EU funding and no major problems arise in this respect.

2019 priority action

- Denmark can further improve its overall environmental governance (such as transparency, citizen engagement, compliance and enforcement, as well as administrative capacity and coordination).

International agreements

The EU Treaties require the EU environmental policy to promote measures at international level to deal with regional or worldwide environmental problems.

The EU is committed to strengthening environmental law and its implementation globally. It therefore continues to support the Global Pact for the Environment process, which was launched by the United Nations General Assembly in May 2018[167]. The EIR is one of the tools to ensure that the Member States set a good example by respecting European Union environmental policies and laws and international agreements. Denmark's performance in signing and ratifying multilateral environmental agreements is one of the best in the EU.

Forests: EU Timber Regulation (EUTR)[168]/ Forest Law Enforcement, Governance and Trade (FLEGT) Regulation[169]

Denmark has a relatively large number of people employed in the implementation and enforcement of the EUTR.

From March 2015 to February 2017, Denmark planned and performed one check on businesses placing domestic timber on the EU market. In the same period, Denmark conducted 98 checks on operators importing timber. This is 145 % more checks than Denmark had originally planned to carry out at the start of this period. These numbers are low compared to the number of businesses placing timber on the EU market for the first time in Denmark over the same period[170]. Denmark performed one check on timber traders the whole two-year period.

Denmark issued the highest number of penalties for imported timber, with penalties issued in nearly 60 cases. These penalties included remedial actions that led to penalties and court cases. In addition, Denmark has worked to improve the quality of inspections and of due diligence systems. This has involved participation in informal meetings in third countries and study trips. Denmark has also developed EUTR guidelines for forest owners[171].

Article 12 of EUTR requires Member States to cooperate with each other and with third countries to implement the regulation. Denmark reported that it had exchanged information and received technical support from governmental institutions outside Denmark, in addition to cooperation with national customs and national CITES/regional and other government agencies.

Genetic resources: Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising (ABS)[172]

The EU ABS Regulation transposes into the EU legal order the required compliance measures under the Nagoya

[163] The Commission issued a guidance document in 2016 regarding the setting up of coordinated and/or joint procedures that are simultaneously subject to assessments under the EIA Directive, Habitats Directive, Water Framework Directive, and the Industrial Emissions Directive, OJ C 273, 27.7.2016, p. 1.
[164] European Commission, Europe's Digital Progress Report (EDPR) 2018 Country Profile Denmark, p. 10.
[165] European Commission, Digital Economy and Society Index Report 2018, Digital Public Services.
[166] European Commission, Europe's Digital Progress Report (EDPR) 2018 Country Profile Denmark, p. 10.
[167] UN General Assembly Resolution 72/277 and Organizational session of the ad hoc open-ended working group.
[168] Regulation (EU) No 995/2010.
[169] Regulation (EC) No 2173/2005.
[170] On the basis of customs' data, it was estimated that 28'000 Danish operators placed domestic timber onto the EU market and 2 800 imported timber.
[171] Ministry of Environment and Food of Denmark, Guideline for Danish forest owners on the EU Timber Regulation (EUTR), 2016.
[172] Regulation (EU) No 511/2014.

Protocol on access to genetic resources. Denmark is a party to the Nagoya Protocol since the protocol entered into force 10 October 2014. Denmark has designated competent authorities and enacted sanctions for infringements of the EU ABS Regulation. Denmark has not yet submitted a due diligence declaration and no penalties have been applied; nevertheless, Denmark has a plan for conducting checks on user compliance and has started inspections on user compliance. In late 2017, Denmark submitted its first report to the Commission on implementation of the EU ABS Regulation.

International wildlife trade: the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)[173]

In line with the obligations laid down in the Basic Regulation[174], which transposes the major obligations of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) into EU law, Denmark has established relevant national authorities and is processing (requests for) import, (re-) export and intra-EU trade documents on a regular basis. Reports on seizures of illegal wildlife shipments (in particular those reported every 6 months to TRAFFIC under its contract with the Commission, and those exchanged through the EU-TWIX platform) show the activity of customs authorities.

Sustainable development and the implementation of the UN SDGs

Sustainable development links environmental, social and economic policies in a coherent framework and therefore helps to implement environmental legislation and policies.

In 2009, the Danish government published its most recent national strategy for sustainable development. The sub-national levels of government were consulted in the preparation of the document. Municipalities have their own sustainable development strategies, which are required by the Planning Act. However, there is no direct link between these strategies and the national strategy.

In 2017 the government published an action plan to implement the SDGs[175]. The action plan contains 37 concrete (mostly) national targets that are largely measurable and quantifiable. This will allow systematic stocktaking and evaluation of progress, but it does not detail specific funding for implementing the SDGs. Denmark already assesses new legislative proposals in terms of their economic, environmental and gender equality consequences. The government supports policy consistency in sustainable development, and ministries must integrate sustainable development in their policymaking[176]. As part of the action plan to implement the SDGs, the government will in future assess the consequences of new legislation and major initiatives for the SDGs in case the impact is significant.

The Ministry of Finance is responsible for the coordination of the national implementation of the SDGs and the government's action plan. However, government ministries are responsible for integrating the SDGs in policy. The Ministry of Foreign Affairs is responsible for the SDGs at the United Nations and in other international fora. It is also responsible for implementing the SDGs in Danish foreign, security policy, trade and development policy.

Implementation of the action plan and sustainable development in general is funded by the budget allocations approved by the Danish parliament in the annual budget negotiations for the coming fiscal year. The government will continue to provide 0.7 per cent of Gross National Income in ODA to promote implementation of the SDGs. The government is also committed to mobilising significant resources in developing countries, and in 2017 launched an SDG fund[177]. This fund will combine public and private funds to mobilise private capital to help achieve the SDGs.

In 2017, a Nordic Council working group prepared a report on the most relevant SDGs and their state of implementation in the Nordic countries[178]. The Nordic Council is encouraging the integration of the SDGs into its own work, and across the countries of the region.

Following the publication of the action plan in 2017, the government will publish annual progress reports on the 37 targets, which will be sent to the Danish parliament. Every four years, the progress report will be replaced by a more comprehensive status report, which will also contain initiatives for achieving the SDGs and possible changes to the action plan[179]. Denmark submitted a voluntary national review on the SDGs to the UN in 2017[180].

[173] European Commission, The European Union and Trade in Wild Fauna and Flora.
[174] Regulation (EC) No 338/97.
[175] Handlingsplan for FN's verdensmål.
[176] The Danish Government, Report for the Voluntary National Review, 2017.
[177] UN City Copenhagen, New DKK 4bn fund contributes to UN Sustainable Development Goals in developing countries.
[178] Norden og FNs 2030-mål.
[179] The Danish Government, Report for the Voluntary National Review, 2017.
[180] The Danish Government, Report for the Voluntary National Review, 2017.