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COMMISSION STAFF WORKING DOCUMENT

The EU Environmental Implementation Review 2019
Country Report - FINLAND

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

Finland and the Environmental Implementation Review (EIR)

In the 2017 EIR, the main challenges Finland faced with implementing EU environmental policy and law were:

- **improving air quality** (NO_2) around Helsinki; and
- **reducing diffuse pollution from agriculture** that was lowering the quality of water.

Finland organised an **EIR country dialogue** on water and the circular economy. It took place in a constructive atmosphere with the participation of the Ministry of the Environment, other ministries, state, regional and local authorities, NGOs, business, research, academia and trade unions. Finland stressed its support for efforts to reinforce implementation of EU environmental law, which it saw as important for EU economies.

In 2017, the Commission launched the TAIEX-EIR Peer-to-Peer (**EIR P2P**) tool as a practical way to support peer-to-peer learning between environmental authorities. Finland participated in a multi-country workshop in 2018 on the preparations of national circular economy action plans.

Progress in meeting challenges since the 2017 EIR

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

For **air quality**, the emission of numerous air pollutants has decreased significantly in Finland since 2014-2016, continuing the previous downward trend. NOx emissions especially have declined by over 10 per cent since 2014-2016.

For **water quality**, Finland states that good progress in reducing pollution from point sources has been achieved in urban and industry sectors and that there has also been progress with measures associated with forestry, rehabilitation of watercourses and in managing hydromorphological pressures as well as in groundwater protection. However, more measures are needed for example regarding agriculture.

For **industrial emissions,** the 2019 EIR report identifies two potential future challenges: (i) complying with recently adopted best available techniques associated emissions levels for large combustion plants for existing boilers using biomass and peat and (ii) issuing permits for and monitoring new types of biorefineries in the pulp and paper industry.

For **nature conservation**, thanks to an effective use of EU funding, **some** measures are being taken to restore and manage Natura 2000 sites. **Some progress** has also been made in better applying measures to protect species and habitats through agricultural management. However, it is currently unclear whether these measures are sufficient to offset the agricultural intensification and resulting eutrophication occurring in the wider countryside.

Finland has continuously demonstrated high levels of **eco-innovation** in the EU. One of the main drivers of eco-innovation is the country's outstanding performance in the circular economy.

Finland has put a lot of effort into improving its **recycling** rate. However, despite these efforts, the country is at risk of missing the 2020 municipal waste recycling target of 50 %. Finland will also have to do more to comply with the recycling targets after 2020. This will in particular require action to cut back on the incineration of municipal waste.

For **marine protection**, Finland has reported new measures for all descriptors and therefore taken the opportunity to develop new initiatives to address pressures in its marine environment. Although its programme of measures addresses the most relevant pressures and targets, the measures do not cover certain pressures and activities and associated impacts identified as important at the subregional level. Finland also reports that it does not expect to achieve good environmental status by 2020 for a number of aspects. Finland's programme of measures thus constitutes only a partially appropriate programme to meet EU requirements.

Examples of good practice

- Education plays an important role in developing experts in the **circular economy**. Finland is paving the way by including circularity in university curricula.
- Habitat banking in Finland may help to protect **biodiversity** and offset losses. The 'Habitat Bank of Finland' project is analysing, developing and piloting the principles of ecological compensation. The project aims to develop a new market-based mechanism for biodiversity conservation to complement the existing policy instrument mix. The Habitat Bank will operate as an intermediary between actors requiring and supplying ecological compensations.
- Finland has introduced a national strategy on **green public procurement** and set ambitious specific targets for central, regional and local government; targets have also been set which gradually increase over time.

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.

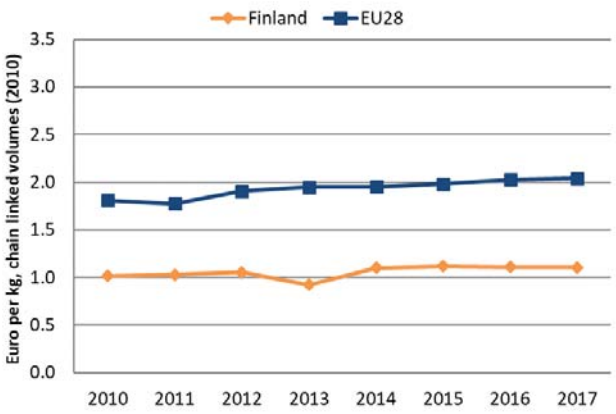
Following the adoption of the Circular Economy Action Plan in 2015 and the setting up of a related stakeholder platform in 2017, the European Commission adopted a new package of deliverables in January 2018[1]. This included additional initiatives such as: (i) an EU strategy for plastics; (ii) a Communication 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].

Among the 10 indicators covering the four dimensions of the circular economy, the monitoring framework[3] for a circular economy indicates that Finland performs lower than the average rate in the EU for the use of circular material (5.3 % in Finland, 11.7 % EU-28). Finland performs slightly below the EU-28 average in terms of the number of people employed in the circular economy (1.66 % of total employment in 2016, EU-28 average is 1.73 %).

In the 2017 Eurobarometer on attitudes of EU citizens towards the environment[4], 89 % of Finnish people said they were highly concerned about the effects of plastic products on the environment (EU-28 average 87 %), and 84 % were concerned about the impact of chemicals (EU-28 average 90 %). There appears to be strong support for circular economy initiatives and environmental protection actions in Finnish society.

Finland is performing below the EU average for resource productivity (how efficiently the economy uses material resources to produce wealth)[5], with EUR 1.10 per kg in 2017 (EU average is EUR 2.04 per kg). Figure 1 shows that this represents a slight decrease since 2016.

Figure 1: Resource productivity 2010-2017[6]



In the 2017 circular economy action plan, the Finnish Innovation Fund, Sitra, and the relevant ministries pledged to examine to what extent 'impact investing' and 'social impact bonds' were suitable for attaining the goals set for the circular economy. The aim is to start Europe's first 'environmental impact bond' project in 2019.

Finland is active in moving the circular economy higher up on the international agenda: the 2017 first-ever World Circular Economy Forum in Helsinki was a success and a source of inspiration for the circular community in Europe.

The Plastics Roadmap for Finland, published in September 2018 is the first step towards a new, sustainable plastic economy. Of the more than 100 proposals made, the roadmap now presents a set of key actions to find solutions to challenges caused by plastics[7].

Currently, out of a total of 71 707 EU Ecolabel products and 2167 licences in the EU, over 2 613 products and 18 licences come from Finland. This shows a high take-up on these licences[8]. Unlike EU Ecolabel registrations, the

[1] European Commission, 2018 Circular Economy Package.
[2] COM(2018) 029.
[3] COM(2018)029
[4] European Commission, 2017, Special 468 Eurobarometer, 'Attitudes of European citizens towards the environment'.
[5] Resource productivity is defined as the ratio between gross domestic product (GDP) and domestic material consumption (DMC).
[6] European Commission, Resource productivity.
[7] Finish Ministry of the Environment, The Plastics Roadmap for Finland
[8] European Commission, Ecolabel Facts and Figures.

country does not have a high number of organisations participating in the EU Eco-Management and Audit Scheme (EMAS), a premium management instrument developed by the European Commission for companies and other organisations to evaluate, report, and improve their environmental performance[9]. Nevertheless, the coverage of these EMAS registrations in Finland is broad given large company participation.

Education plays an important role in developing experts in circularity. Finland is paving the way by including circularity in curricula: Sitra is currently cooperating with 11 universities, 14 universities of applied sciences, and 12 vocational colleges to bring circularity into higher education. Finland's target is to train 60 000 future circular economy experts in 2018.

Municipalities are also active in circular economy. Fisu (Finnish Sustainable Communities) is a network of Finnish municipalities committed to working towards becoming carbon neutral and waste-free and curbing overconsumption by 2050. Today, the network consists of 11 municipalities[10].

SMEs and resource efficiency

Finnish SMEs performed above the EU average in the environmental dimension of the Small Business Act[7], as shown in Figure 2.

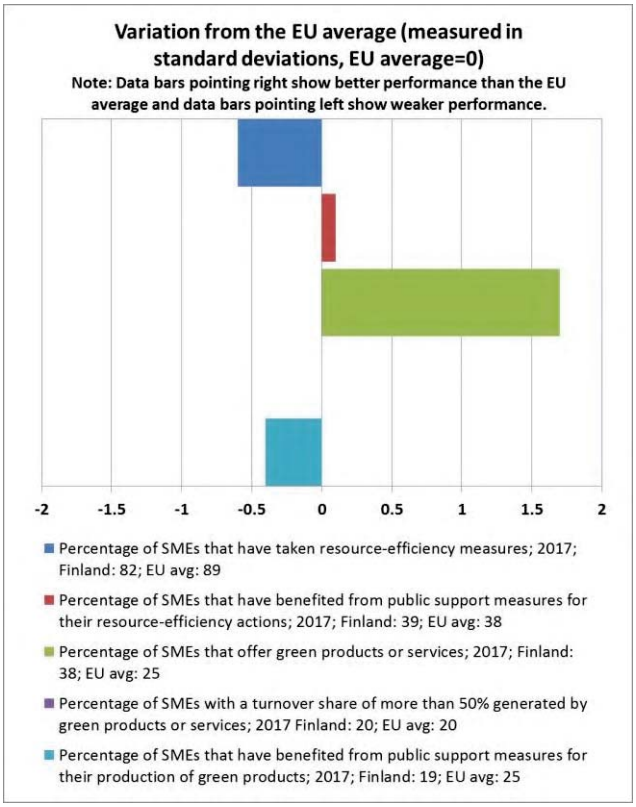
Compared to 2013 when its performance was on a par with the EU average, Finland strongly improved its position. A large increase in the number of companies producing green products and services was accompanied by a rise in the proportion of SMEs benefiting from public support.

Companies taking resource-efficiency measures benefit more from public support than the EU average. However, the percentage of SMEs that have benefited from public support measures for their production of green products is significantly lower than the EU average.

The latest Eurobarometer on 'SMEs, resource efficiency and green markets'[11] asked companies about both recent resource-efficiency actions they had taken and additional resource-efficiency actions they planned to take in the next 2 years. The Eurobarometer then compared these responses with responses given to the same questions in 2015. For recent investment, Finnish companies are at or below the EU average, and they invested less compared to 2 years earlier. Also, the outlook is not positive, with fewer companies intending to invest in all dimensions.

Only 22 % of Finnish companies (EU average 22 %, range 3 %-38 %) relied on external support in their efforts to be more resource-efficient. For them, private sector finance and consulting became more significant (41 % of Finnish companies used private sector finance and 43 % used private sector consulting). However, the use of public sector advice and funding declined and is at the EU average of around 25 %. Advice from business associations (21 % to 31 %) increased significantly compared to 2015.

Figure 2: Environmental performance of SMEs[12]



To be more resource-efficient, 33 % of Finnish companies (highest of all countries compared to EU average of 20 %) consider assistance for better cooperation between companies across sectors as helpful, 24 % (+7 %) mention grants and subsidies as helpful, and 23 % (stable) say consultancy is helpful.

The performance of Finnish SMEs on resource efficiency has improved significantly in the last few years, but investment and ambitions appear to have reached a plateau.

Academic excellence like at Aalto University and local actions for the circular economy like the 'resource

[9] European Commission, Eco-Management and Audit Scheme
[10] Finnish Sustainable Communities
[11] Flash Eurobarometer 456 'SME, resource efficiency and green markets' January 2018. The 8 dimensions 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.
[12] European Commission, 2018 SBA fact sheet - Finland, p. 13.

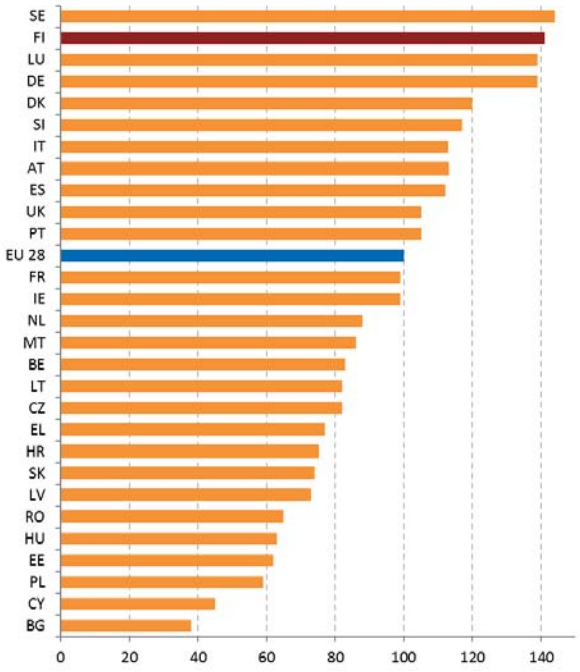
wisdom' project in Jyväskylä provide a good starting point for this.

Eco-innovation

Finland ranked 3rd on the European Innovation Scoreboard 2018, up 2.8 percentage points since 2010[13].

According to the latest eco-innovation index, Finland is one of the leading eco-innovation countries in the EU (see Figure 3).

Figure 3: 2017 Eco-innovation index (EU=100)[14]



Finland has continuously demonstrated high levels of eco-innovation in the EU, progressing from fourth in 2014 to its current position of second.

Accordingly, Finland's policy landscape can be considered supportive of eco-innovation. A multitude of different policies, directives, and policy documents have been agreed upon in recent years, the ultimate goal being to make Finland a global leader in eco-innovation.

One of the main drivers of eco-innovation is the country's outstanding performance in the circular economy. It is estimated that by 2030 this will benefit Finland's overall national economy with a volume of 2 to 3 billion euros in added-value potential[15].

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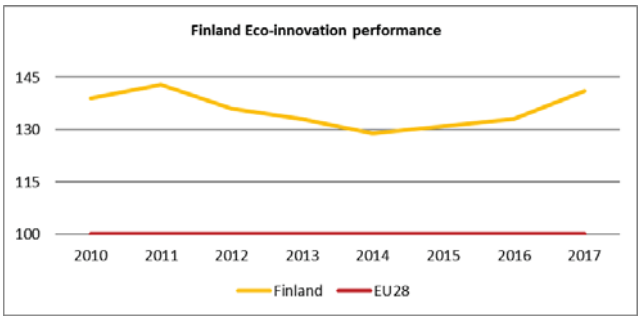
Figure 4: Finland's eco-innovation performance



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Finland's share in the global cleantech market exceeds the 1 % mark, which is about twice as much as the country's contribution to global GDP. Approximately 68 % of the cleantech companies operating in Finland are either micro-organisations or SMEs and have less than 250 employees.

Barriers to eco-innovation are: (i) a lack of nontechnical skills, (ii) an insufficient focus on internationalisation, and (iii) too little risk-taking readiness in Finnish business and academic spheres.

The government programme for 2015-2019 sets additional R&D policy objectives, and specifically highlights the importance of university-business collaboration. More specifically, new growth sectors where investments are being made include the bioeconomy, clean and green technologies, healthcare, and digitalisation. Finland has experienced substantial cuts in funding for R&D and R&I in recent years, potentially hampering further development for actors in this domain.

The Finnish authorities have also forced a trend of increasing public procurement for innovation (PPI). The government's overarching goal is that by 2019 5 % of all public procurement would be allocated to PPI.

[13] European Commission, European Innovation Scoreboard 2018, p. 15.
[14] European Commission, Eco-innovation Observatory: Eco-Innovation scoreboard 2017.
[15] European Commission, Eco-Innovation Observatory, Country profile 2016-2017: Finland.
[16] European Commission, Eco-Innovation Observatory, Country profile 2016-2017: Finland.

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].

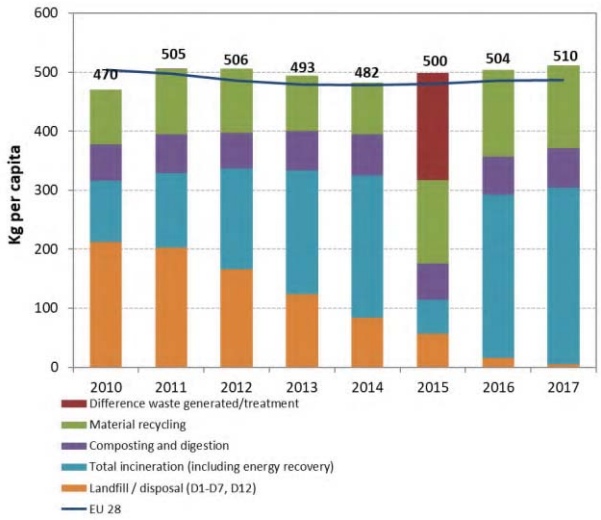
The amount of municipal waste generated in Finland amounted to 510 kg per capita in 2017, above the EU average (487 kg per year per capita in 2017)[19] and has fluctuated over past years.

Figure 5 depicts the municipal waste by treatment in Finland in terms of kg per capita. It shows a significant steady decrease in landfilling since 2013 and an increase in recycling. In 2017, more than half (59 %) of waste in Finland was incinerated, a level that has remained rather stable since 2014.

The landfilling rate in Finland is among the lowest in the EU (1 % in 2016) and far below the EU average (24 %).

Since 2014, a sizeable increase of 8 points has been achieved for the recycling of municipal waste, arriving at 41 % in 2017 (composting accounts for 13 %). This is slightly below the EU average of 46 % shown in Figure 6. This resulted from: (i) Finland's focus on separate collection in environmentally conscious urban areas, including in apartment blocks, (ii) a deposit refund scheme for beverage containers, (iii) the increased separate collection of biowaste since 2012[20], and (iv) a correction of data in 2015 to include cardboard from commercial enterprises (responsible for around 7 % of the increase). A ban on landfilling biodegradable and other organic waste stimulated significant investment in waste-to-energy (WtE) plants and in biowaste collection and treatment.

Figure 5: Municipal waste by treatment in Finland 2010-2017[21]



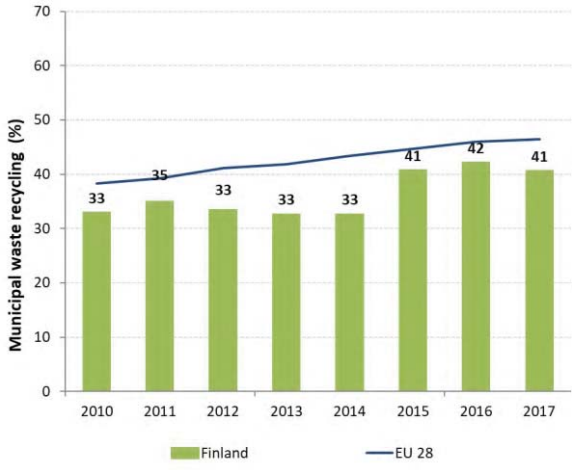
Finland has put a lot of effort into improving its recycling rate. However, despite this progress, the country was listed in the Commission's 'Early Warning report'[22] as one of the Member States at risk of missing the 2020 municipal waste recycling target of 50 %[23].

Parts of Finland are very rural, with low population densities. Collection in these areas has not been a priority because of the low collection volumes and long distances between properties. Door-to-door recycling collections in more suburban areas have also not been a priority, while the extended producer responsibility schemes have been fragmented. In addition, the roles and responsibilities of the municipalities have changed repeatedly in recent years. This has created uncertainty and lack of investment.

The Early Warning report delivered a set of key priority actions for Finland to help bridge the remaining implementation gap. Most importantly, the Commission recommended that Finland should set mandatory recycling targets for municipalities in line with the national targets of 50 %. It also recommended greater cooperation between producer responsibility organisations (PROs), municipalities and collection companies to drive efficiency savings and to reduce fragmentation. In addition, more focus on economic instruments is needed to ensure the cost of disposal and energy recovery is sufficiently high to incentivise recycling. The Commission concluded that Finland should introduce further requirements for sorting waste, including the requirement to sort business waste, with door-to-door recycling services.

[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.
[19] Eurostat, Municipal waste and treatment, by type of treatment method
[20] Biowaste has been separately collected in Finland since 1990's.
[21] Eurostat, Municipal waste by waste management operations
[22] SWD(2018) 417 final.
[23] Finland uses calculation method 4.

Figure 6: Recycling rate of municipal waste 2010-2017[24]



Investments in waste management should prioritise projects in waste prevention, including re-use projects and awareness raising. Other elements would include introduction of Pay-As-You-Throw schemes, separate collection, in particular to improve at home waste separation and out-of-home separate collection (recycling centres or civic amenity sites), sorting facilities for separately collected waste, and recycling infrastructure for dry and wet recyclables. The collection and treatment of bio-waste should also be prioritised. 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.

Despite these steps that need to be taken in the short term, Finland will also have to do more to comply with recycling targets after 2020[25]. This will especially require action to reduce the incineration of municipal waste.

2019 priority actions

- Introduce new policy instruments, including economic instruments, to promote prevention, make reuse and recycling more economically attractive. Reduce fragmentation of responsibilities within the EPR schemes and improve their functioning.
- Shift reusable and recyclable waste away from incineration.
- Set mandatory recycling targets for municipalities and shift responsibilities back to the municipalities, with measures in case of non-compliance. Introduce mandatory minimum service standards on separate collection.

[24] Eurostat, Recycling rate of municipal waste

[25] 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.

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.

The EU emissions trading system (EU ETS) covers all large greenhouse gas emitters in the industry, power and aviation sectors in the EU. The EU ETS applies in all Member States and has a very high compliance rate. Each year, installations cover around 99 % of their emissions with the required number of allowances.

For emissions not covered by the EU ETS, Member States have binding national targets under the Effort Sharing legislation. Finland had lower emissions than its annual emission allocations (AEAs) in each of the years 2013-2015, while in 2016 emissions where higher than the AEA. According to preliminary data, emissions in 2017 exceeded the AEA by 2 percentage points. For 2020, Finland's national target under the EU Effort Sharing Decision is to reduce emissions by 16 % compared to 2005. For 2030, Finland's national target under the Effort Sharing Regulation is to reduce emissions by 39 % compared to 2005. Finland has projected that without additional measures it may miss its 2020 target by 1 pp and its 2030 target by 17 pp.

The Finnish NECP is prepared on the basis of the Government Report on Energy and Climate Strategy for 2030 (autumn 2016), Medium Term Climate Policy Plan (autumn 2017) and other relevant documents. Finland's long-term goal is to be a carbon-neutral society by mid-century. Finland will be preparing a long-term strategy, with a view to carbon neutrality and with a time-frame of up to 2050. This strategy should be finalized during 2019.

Transport represents almost a quarter of the EU's GHG emissions and is the main cause of air pollution in cities. Transport emissions in Finland increased by 3 % from 2013 to 2016.

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. Finland has notified the Commission of both measures.

Figure 7: Change in total greenhouse gas emissions 1990-2017 (1990=100%)[26].

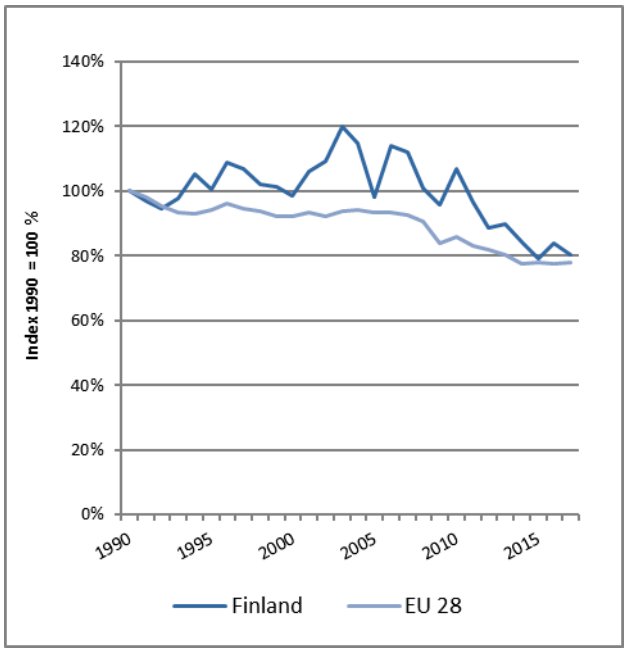


Figure 8: Targets and emissions for Finland under the Effort Sharing Decision and Effort Sharing Regulation[27].

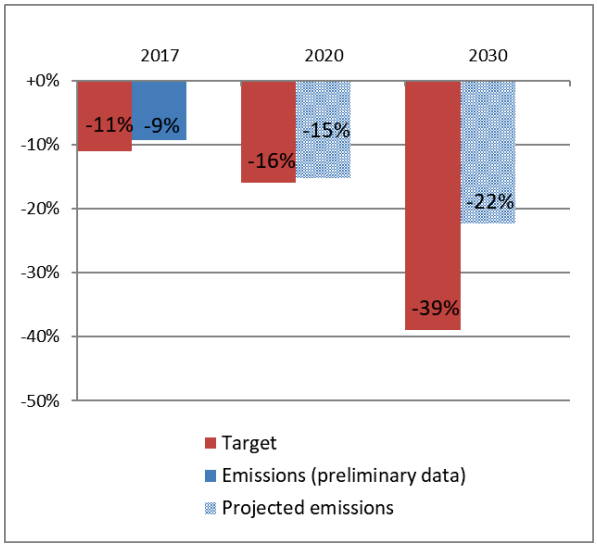
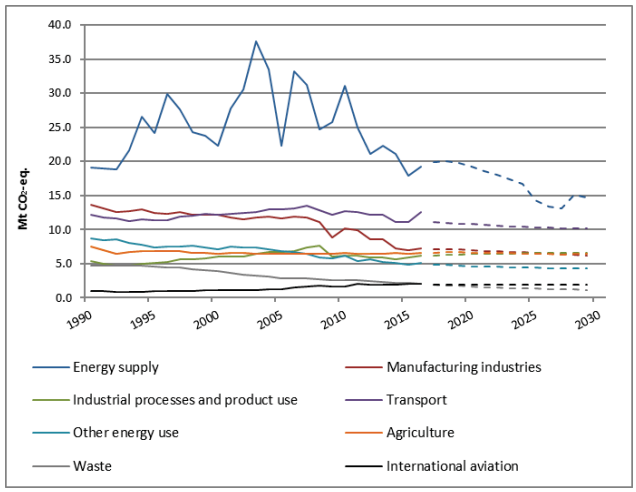


Figure 9: Greenhouse gas emissions by sector (Mt. CO2-eq.). Historical data 1990-2016. Projections 2017-2030[28].



The accounting of GHG emissions and removals from forests and agriculture is governed by the Kyoto Protocol. Reported quantities under the Kyoto Protocol for Finland show net removals of, on average, -49.2 Mt CO_2-eq for the period 2013 to 2016. In this regard, Finland contributes with 12.8% to the annual average sink of -384.4 Mt CO_2-eq of the EU-28. Accounting for the same period depicts net debits of, on average, 0.8 Mt CO_2-eq, which corresponds to a negative contribution of -0.7% of the EU-28 accounted sink of -115.7 Mt CO_2-eq. Finland is one of six EU Member States, which show net debits in this preliminary accounting exercise. Finland is one of eight EU Member States, which exceed the cap of 3.5% from emissions of the base year (1990).[29]

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.

In Finland, a National Adaptation Strategy (NAS) was adopted in 2005 as an independent element of the wider National Energy and Climate Strategy. The NAS revision resulted in 2014 in the publication of a new national climate change adaptation framework known as the National Adaptation Plan for Climate Change 2022. The key principle of the adaptation plan concerns the incorporation of climate change adaptation into the regular planning, implementation and development of all

[26] 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.

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

[28] 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.

[29] COM (2018) 716 final and SWD (2018) 453 final.

sectors and actions. A national monitoring group is appointed to follow and evaluate the implementation of the adaptation plan, with representatives from the relevant ministries, research institutions, and regional and local bodies and actors. Monitoring indicators related to risks to human health and adaptation measures executed in flood risk areas have been developed, with a report released in 2017.

The total revenues from the auctioning of emission allowances under the EU ETS over the years 2013-2016 were EUR 295 million. 43% of the auctioning revenues has been spent on climate and energy purposes.

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.

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

Finland has a comprehensive biodiversity strategy for 2014-2020, and its action plan for 2013-2020[30] covers many issues relevant to the implementation of the Nature Directives.

Setting-up a coherent network of Natura 2000 sites

The Birds and Habitats Directives require Member States to establish a coherent national network of Natura 2000 sites. The Commission assesses compliance with this requirement individually for each species and habitat type occurring on the national territory of the Member States. The latest update of this assessment was carried out by the Commission with the assistance of the European Environment Agency. On the basis of this latest update, Finland's terrestrial Natura 2000 network under the Birds and Habitats Directives is now considered to be complete.

By the end of 2017, there were 468 Birds Directive SPAs and 1 721 Habitats Directive SCIs in Finland. Due to overlaps, that amounts to 1 865 marine and terrestrial Natura 2000 sites, 87 of which are located in the Åland Islands. The terrestrial part of the network covers 14.45 % of the Finnish national territory (EU average 18.17 %), with the SPAs covering 7.3 % (EU average 12.4 %) and the SCIs covering 14.4 % (EU average 13.9 %).

Designating Natura 2000 sites and setting conservation objectives and measures

Based on an assessment of the sufficiency of the SCI network[31] for Annex II species and Annex I habitats occurring in Finland, the Natura 2000 network in Finland is considered complete in the Alpine region and almost complete in the Boreal and Marine Baltic region. However, there are insufficiencies in designation for the marine components of the SCIs network, as shown in Figure 5[32].

The process of designating the sites as special areas of conservation (SAC) is almost complete, except in the Åland Islands.

Outside the autonomous region of the Åland Islands where the legal framework and management tools for Natura 2000 still have to be stabilised, Finland has developed a new planning and monitoring system for its protected areas. This system includes a specific periodic assessment of the status of the habitats and species of the Natura 2000 sites. Management plans are linked to the system. As 80 % of the Natura 2000 sites are state-owned, most of the Finnish Natura 2000 sites are managed by one state-owned organisation,

[30] The Republic of Finland, Suomen luonnon monimuotoisuuden suojelun ja kestävän käytön strategia ja sen toimintasuunnitelma

[31] 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. The current data, which were assessed in 2014-2015, reflect the situation up until December 2013.

[32] The percentages in Figure 5 refer to percentages of the total number of assessments (one assessment covering 1 species or 1 habitat in a given biographical region with the Member State); if a habitat type or a species occurs in more than 1 Biogeographic region within a given Member State, there will be as many individual assessments as there are Biogeographic regions with an occurrence of that species or habitat in this Member State.

Metsähallitus, which is responsible for the use of state-owned land and waters.

The number of nature-related complaints and infringements is low in Finland. Most complaints and infringement cases relate to the derogations under Articles 9 (Birds Directive) and 16 (Habitats Directive).

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.

There is good knowledge of the species present on the Finnish territory. Of the 45 000 species living in Finland, it has been possible to evaluate the threat status for over 21 000 species. The conclusion is that one tenth of the species evaluated in Finland is endangered.

The latest Red List of Birds (2015)[33] indicates that out of 245 bird species, 36 % are *threatened*, 9 % are *nearly threatened* and 55 % are of *least concern*. Targeted conservation actions are bringing results, as shown by the increasing populations of golden eagles, white-tailed sea eagles, white-backed woodpeckers and peregrine falcons. On the other hand, there have been concerns recently surrounding the decline of common forest birds in managed forests in southern Finland. The Red List assessment of mammals (2015) shows that the Arctic fox is *critically endangered* and the Saimaa ringed seal, wolverine, wolf and natterer's bat are *endangered*. However, the mountain hare and otter are no longer *threatened*. For birds, the most important threats are in breeding areas when there are changes, along migration routes and in wintering areas. For mammals, the main threats are hunting (including illegal killing), climate change and random factors linked to small populations.

Some 78 % of Finland's surface is forest land. However, only about 9 % of the forest area is strictly protected from any forestry measures, and most of the protected areas are in northern Finland. The country currently has an ambitious bioeconomy target which also foresees an increasing use of timber.

[33] IUCN, Red List

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

Member States report every 6 years on the progress made under both Directives. Therefore, since the 2017 EIR, no new information is available on the state of natural habitats and species, nor on progress made in improving the conservation status of species and habitats in Finland.

Overall, and given the forest coverage in Finland, it is acknowledged that the favourable conservation status for the forest- and peatland-related species and habitats will not be achieved unless commercial forestry better pursues biodiversity goals, including outside the Natura 2000 network. For example, the legal framework for felling operations during the nesting season might need to be adjusted to better take into account the needs of the species and European legal requirements. It is also acknowledged that action has to be taken to develop coexistence with some protected species, such as some large carnivores and some bird species that are developing large colonies. Doing so will ensure that their conservation status is improved or maintained in the long term.

2019 priority actions

- Complete the designation of the Natura 2000 network, especially for marine sites, establish the necessary conservation measures for all the sites, including in the Åland Islands and ensure they maintain/restore species and habitats of community interest to a favourable conservation status across their natural range.
- Better integrate biodiversity concerns into other policies and promote better communication between actors.
- Develop a strategy with the forest sector in order to ensure the forestry sector better integrates biodiversity goals, including outside Natura 2000.

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 Finland[34] and a

[34] European Commission, 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.

country page on the Biodiversity Information System for Europe (BISE)[35]. This information will also contribute to the final evaluation of the EU Biodiversity Strategy to 2020.

In Finland, green infrastructure is incorporated through sector-specific and integrative instruments. Sector-specific instruments include legislation on agriculture, forestry, mining, land extraction and the utilisation of water resources. Integrative instruments can be found in spatial planning and impact assessment procedures.

The Finnish biodiversity strategy and action plan for 2020 provides the basis for the country's policy on green infrastructure and sets measures for incorporating green infrastructure into spatial planning. Several objectives related to biodiversity and green infrastructure are part of the Land Use and Building Act[36] and the National Land Use Guidelines. A national strategy for the sustainable and responsible use of mires and peatlands[37] was adopted in 2012, directing the use of peatlands to non-pristine areas. Green infrastructure is also incorporated in forestry and landscape planning through ecosystem-based natural resource plans (ENRP) and landscape ecological plans.

The EnRoute project (2017-2018), joined by the municipality of Helsinki, offers opportunities to make green infrastructure a mainstream part of urban policy and city governance. The SustainBaltic project (2016-2018)[38], which deals with marine and coastal policy, focuses on the development of integrated coastal zone management (ICZM) plans sustaining human and ecological networks. In the area of health care, Finland has developed nature-based preventive measures to increase the wellbeing of vulnerable social groups.

In future, habitat banking in Finland may help to protect biodiversity and offset losses. The 'Habitat Bank of Finland' project (2016-2017)[39] analysed, developed and piloted the principles of ecological compensation. The project aims to develop a new market-based mechanism for biodiversity conservation, to complement the existing policy instrument mix. The 'habitat bank' will operate as an intermediary between actors requiring and supplying ecological compensations.

Green infrastructure activities are funded by biodiversity and nature conservation instruments and by sector-specific instruments and a mix of EU financial instruments. However, it is estimated that there is a funding gap for biodiversity funding. For example, it is estimated that an additional EUR 46 million are needed annually to implement the national biodiversity action plan (2016-2020).

There are still challenges with incorporating green infrastructure in policy-making. These relate to political ownership, policy coherence and coordination across sectors, as there are no policy tools for systematic and comprehensive action to preserve and improve green infrastructure. Green infrastructure could be incorporated by making more efficient and systematic use of the available instruments, such as land use planning. However, this requires more sharing of information and dialogue between authorities, a stronger knowledge base and the development of monitoring systems.

Finland is encouraged to continue its efforts in deploying green and blue infrastructure and making it a mainstream part of other policies, consistent with the MAES framework. It is also encouraged to consider the recommendations of the green infrastructure strategy review report and to make full use of the EU Guidance on a strategic framework for further supporting the deployment of EU-level green and blue infrastructure [40]. Finland is invited to provide regular updates on developments relating to its green infrastructure via its green infrastructure country page on BISE[41]. This information will also feed into the final evaluation of the EU biodiversity strategy to 2020 to be communicated to the Council and European Parliament in 2020.

Finland is invited to provide information about progress on a prioritisation framework for restoration as provided for under action 6a of the EU biodiversity strategy. It is also asked to report on other strategic approaches to restoration or on anything relating to practical implementation.

Estimating natural capital

The EU biodiversity strategy calls on Member States to map and assess the state of ecosystems and their services[42] 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.

Finland has actively participated in the ESMERALDA project[39]. This project has continued the previous assessment work done on the value and social

[35] Biodiversity Information System for Europe.
[36] The Republic of Finland, the Land Use and Building Act
[37] The Republic of Finland, A national strategy for the sustainable and responsible use of mires and peatland
[38] University of Turku, EU project SustainBaltic
[39] Finnish Environment Institute, Habitat Bank of Finland

[40] 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.
[41] BISE, Finland profile
[42] Ecosystem services are benefits provided by nature such as food, clean water and pollination on which human society depends.

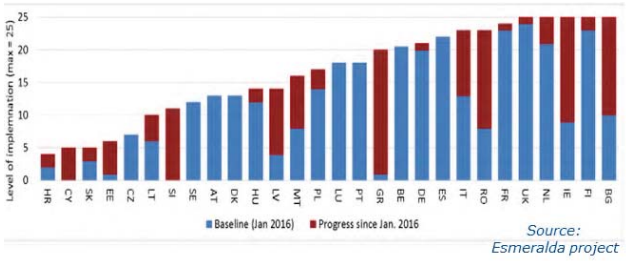
significance of ecosystem services in Finland and pursued the development of the Finish ecosystem services indicators. The project is close to completing the implementation. However, a comprehensive national report on ecosystems and their services is lacking.

Finland has developed an internet portal[43] to bring together the knowledge on the status of biodiversity, ecosystem services, genetic resources and biosafety. The portal serves as a Finnish national clearing house mechanism under the Convention on Biological Diversity.

MAES-related developments fall into four categories:

1. *Networking and information sharing*: in 2016, a first networking meeting was organised for volunteers and interested stakeholders to discuss recent findings and report on the MAES process. The intention is to repeat this yearly.
2. *Supporting land-use planning*: several individual mapping projects have been carried out in several regions in Finland by interested country planners and natural resource managers, e.g. for integrated coastal zone management or carbon storages.
3. *Integrated natural capital accounting*: The Finnish Environment Institute, the Natural Resource Institute and Statistics Finland have discussed the possibility of collaborating to integrate MAES and INCA work. A pilot study was conducted in 2017.
4. *Preparing for assessment of ecosystem conditions*: the ENVIBASE project has improved facilities to use new earth observation data (e.g. Sentinels, Copernicus data services) in monitoring ecosystem conditions. The Finnish Environment Institute explored various remote sensing options and other environmental monitoring techniques and tested them in 2017.

Figure 10: Implementation of MAES (September 2018)



At the MAES working group meeting held in Brussels in September 2018, it was noted that Finland had made substantial progress in implementing MAES since January 2016 (Figure 10). This assessment was made by the ESMERALDA project[44] and based on 27 implementation questions. The assessment is updated every six months.

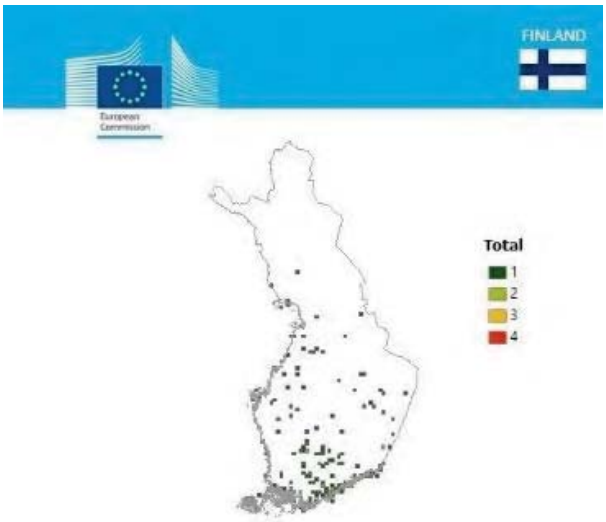
[43] The Republic of Finland, Finnish ecosystem service indicators.
[44] EU project, Esmeralda.

The Corporate Responsibility Network (FIBS)[45] in Finland aims to raise awareness of biodiversity and introduce tools for companies to help them discover their dependencies on ecosystem services. It is also helping them to manage their impact on nature and has set up a training programme for companies on the application of the natural capital protocol. In addition to public events, selected companies are participating in Master Class training to deepen their insight into biodiversity and share information between the companies.

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.

Figure 11: Number of IAS of EU concern, based on available georeferenced information for Finland[46]



The report on the baseline distribution (Figure 11), for which Finland reviewed its country and grid-level data, shows that of the 37 species on the first EU list, seven have been observed in the environment in Finland, all of them are established, but none of them seems to be very widely distributed. The Chinese mittencrab (*Eriocheir sinensis*) is widely spread along the coast.

Between the entry into force of the EU list and 18 May 2018, Finland did not notify any new appearances of IAS

[45] The Corporate Responsibility Network.
[46] 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.

of Union concern, pursuant to Article 16(2) of the IAS Regulation.

Finland 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.

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.

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

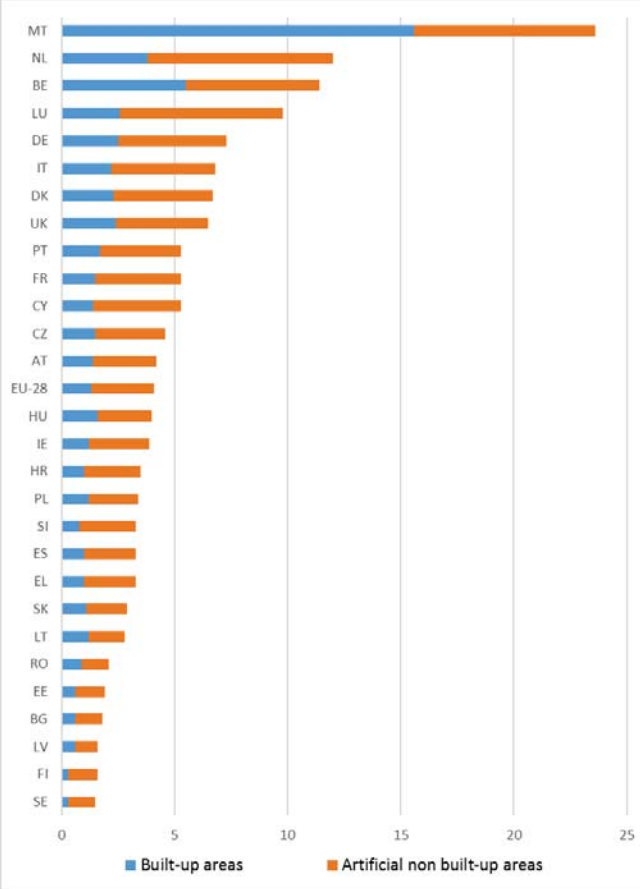
The percentage of artificial land[47] in Finland (Figure 12) can be seen as a measure of the relative pressure on nature and biodiversity, as well as the environmental pressure on people living in urbanised areas. A similar measure is population density.

Finland ranks below the EU average for artificial land coverage, with 1.6 % of artificial land (EU-28 average: 4.1 %). The population density is 18.1/km^2, which is also below the EU average of 118[48].

Contamination can severely reduce soil quality and threaten human health or the environment. A recent report of the European Commission[49] 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. Finland has registered 26 200 sites where potentially polluting activities have taken or are taking place, and already has remediated or applied aftercare measures on 5 700 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, as well as on rivers and lakes (increased volume of sediments, transport of contaminants). According to the RUSLE2015 model[50], Finland has an average soil loss rate by water of 0.06 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 Finland is under control. It is important to note that these figures are the output of a model and therefore should not be considered values measured in-field. The actual soil loss rate can vary widely within a Member State depending on local conditions.

Figure 12: Proportion of artificial land cover, 2015 [51]



Soil organic matter plays an important role in the carbon cycle and in climate change. Soils are the second largest carbon sink in the world after the oceans.

[47] 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).
[48] Eurostat, Population density by NUTS 3 region.
[49] 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".
[50] 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, (2015) Environmental Science and Policy, 54, pp. 438-447. .
[51] Eurostat, Land covered by artificial surfaces by NUTS 2 regions.

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)[52] 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.

Member States have to develop a marine strategy for their marine waters and cooperate with those Member States sharing the same marine (sub)region.

For Finland, the Baltic Marine Environment Protection Commission (Helsinki Commission) plays an important role in achieving the goals required by the Marine Strategy Framework Directive. These marine strategies comprise different steps to be developed and implemented over six-year cycles. The latest step required Member States to set up their programme of measures and report it to the Commission by 31 March 2016. The Commission assessed whether Finnish measures were appropriate to reach Good Environmental Status[53].

Finland has reported new measures for all descriptors and therefore taken the opportunity to develop new initiatives to address pressures in its marine environment specifically under the MSFD. For example, for marine litter and underwater noise, a gradual roll-out of certain measures is planned. This is positive as it indicates detailed planning. In these cases, the first phases of the measures (2016-2017) will focus on addressing data gaps through research and studies, while the latter phases (2018 and beyond) will focus on implementing specific action plans tackling the pressures in the marine environment (direct measures).

Although the programme of measures addresses most relevant pressures and targets, the measures do not cover certain pressures and activities and associated impacts identified as significant at the subregional level (e.g. heat inputs into the marine environment and the impact of fisheries on the biodiversity of fish). Finland also reports that it does not expect to achieve GES by 2020 for a number of aspects, namely commercial fish and shellfish, eutrophication and contaminants in seafood. Finland's programme of measures is partially appropriate in meeting the requirements of the MSFD.

2019 priority actions

- Determine the timelines for achieving good environmental status when these have not been reported.
- Ensure regional cooperation with Denmark, Estonia, Germany, Latvia, Lithuania, Poland and Sweden in the Baltic Sea region to address predominant pressures.

[52] European Union, Marine Strategy Framework Directive 2008/56/EC
[53] COM(2018) 562 and SWD(2018) 393.

3. Ensuring citizens' health and quality of life

Air quality

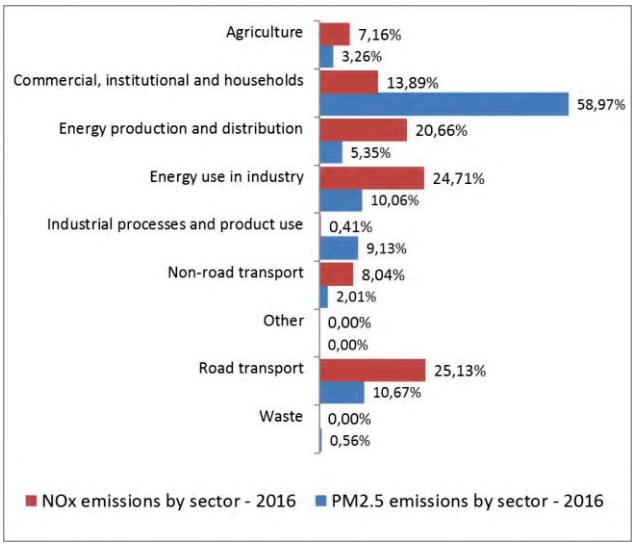
EU clean air policy and legislation require the significant improvement of air quality in the EU, moving the EU closer to the quality recommended by the World Health Organisation. Air pollution and its impacts on human health, ecosystems and biodiversity should be further reduced with the long-term aim 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[54], which establishes health-based standards and objectives for a number of air pollutants.

According to a special report from the European Court of Auditors[55], 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[56].

The emission of several air pollutants has decreased significantly in Finland. The emission reductions from 1990-2014, mentioned in the 2017 EIR, continued in 2014-2016. Emissions of sulphur oxides (SO_x) fell by 10.08 % between 2014 and 2016, emissions of ammonia (NH_3) by 6.28 %, emissions of volatile organic compounds (NMVOCs) by 5.62 %, emissions of fine particulate matter $PM_{2.5}$ by 4.24 % and emissions of nitrogen oxides (NO_x) by 11.49 % over the same period (see also Figure 13 on the total PM2.5 and NO_x emissions per sector).

Figure 13: $PM_{2.5}$ and NO_x emissions by sector in Finland [57]



Nevertheless, air quality in Finland continues to give cause for concern.. The European Environment Agency[58] estimated that in 2015 about 1 500 premature deaths were attributable to fine particulate matter concentrations[59], 80 to ozone concentrations[60], and 40 to nitrogen dioxide concentrations[61]. Although concentrations above EU air quality standards are rare, significant health risks still exist.

For 2017, no exceedances above the EU air quality standards have been reported.

[54] European Commission, 2016. Air Quality Standards

[55] European Court of Auditors, Special report no 23/2018, Air pollution: Our health still insufficiently protected, p.41.

[56] 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.

[57] 2016 NECD data submitted by Member State to the EEA.

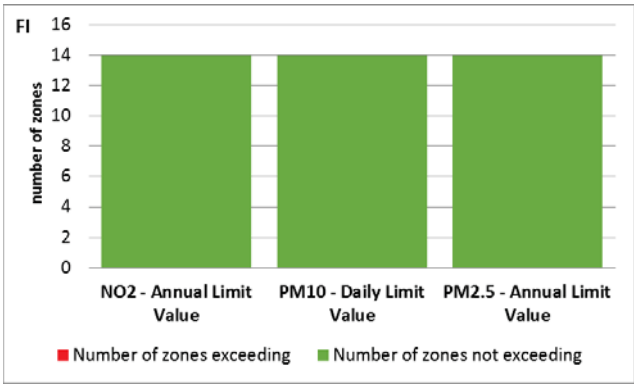
[58] European Environment Agency, 2016. Air Quality in Europe — 2016 Report (Table 10.2, please see details in this report as regards the underpinning methodology).

[59] Particulate matter (PM) is a mixture of aerosol particles (solid and liquid) covering a wide range of sizes and chemical compositions. PM10 (PM2.5) refers to particles with a diameter of 10 (2.5) micrometres or less. PM is emitted from many anthropogenic sources, including combustion.

[60] Low level ozone is produced by photochemical action and it is also a greenhouse gas.

[61] European Environment Agency, Air Quality in Europe – 2018 Report, p.64. Please see details in this report as regards the underpinning methodology.

Figure 14: Air quality zones exceeding EU air quality standards in 2017[62]



It is estimated that the health-related external costs from air pollution in Finland are over EUR 2 billion per year (income adjusted, 2010). These external costs include not only the intrinsic value of living a full healthy life but also direct costs to the economy. These direct economic costs relate to 542 000 workdays lost each year due to sickness from air pollution, with associated costs of EUR 74 million per year for employers (income adjusted, 2010), over EUR 8 million per year for healthcare (income adjusted, 2010), and EUR 29 million per year for losses in farmcrops (2010)[63].

2019 priority action

- Take, in the context of the National Air Pollution Control Programme (NAPCP), actions towards reducing the main emission sources - and meet all air quality standards.

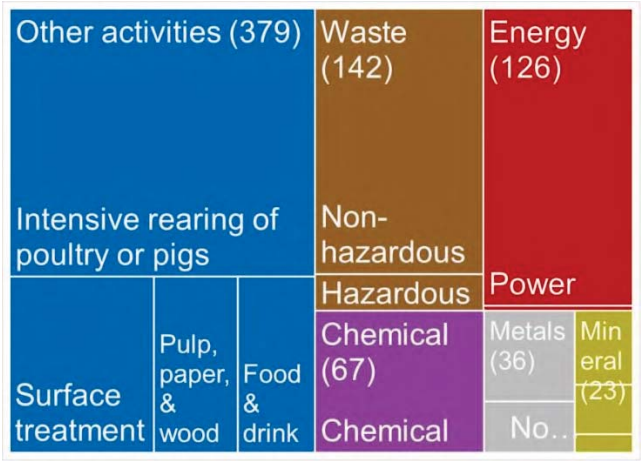
Industrial emissions

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[64] (IED).

The below overview of industrial activities regulated by the IED is based on the 'industrial emissions policy country profiles' project[65].

In Finland, around 775 industrial installations are required to have a permit based on the IED[66]. The industrial sectors in Finland with the most IED installations in 2015 (i.e. IED installations with a permit in 2015) were the intensive rearing of poultry or pigs (30 % of total), followed by non-hazardous waste management (16 %) and power generation (16 %).

Figure 15: Number of IED industrial installations by sector, Finland (2015)



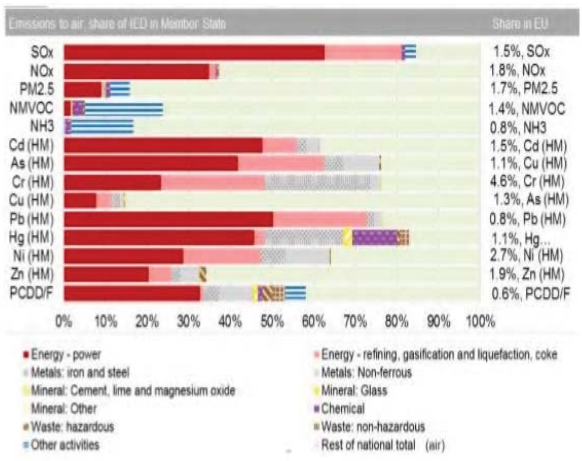
The industrial sectors identified as contributing the largest burden to the environment for emissions to air are: (i) 'energy-power' mainly for heavy metals, sulphur oxides (SOx) and nitrogen oxides (NOx); (ii) 'energy-refining' for heavy metals and SOx; (iii) the 'metals' sector for heavy metals; and (iv) 'other activities' (mostly the intensive rearing of poultry or pigs and surface treatment) for non-methane volatile organic compounds (NMVOC) and ammonia (NH_3). The breakdown is shown in the following graph.

The industrial sectors of 'other activities', 'metals — iron and steel', and 'non-hazardous waste management' were identified as making a significant contribution to emissions to water. The 'metals' industrial sector generates the most hazardous waste of all industrial sectors.

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.

[62] EEA, EIONET Central Data Repository. Data reflects the reporting situation as of 26 November 2018.
[63] These figures are based on the Impact Assessment for the European Commission Integrated Clean Air Package (2013).
[64] 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).
[65] European Commission, Industrial emissions policy country profile – Finland.
[66] European Commission, Industrial emissions policy country profile – Finland.

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



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

Thanks to the efforts by the national competent authorities 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 by between 8 % and 56 %, dust by between 31 % and 78 % and mercury by between 19 % and 71 %. The extent of the reduction depends on the situation in individual plants.

A future challenge identified was complying with the recently adopted associated BAT emission levels for large combustion plants with existing boilers using biomass and peat.

2019 priority actions

- Review of permits to comply with new adopted BAT conclusions.
- Strengthen monitoring and enforcement to ensure compliance with BAT conclusions.
- Address challenges to comply with the recently adopted BAT conclusions for large combustion plants for existing boilers using biomass and peat by August 2021.

Noise

The Environmental Noise Directive[67] provides for a common approach to avoiding, preventing and reducing the harmful effects of exposure to environmental noise.

Excessive noise from aircrafts, railways and roads is one of the main causes of health problems in the EU[68].

In Finland, based on a limited set of data, environmental noise causes at least around 200 premature deaths and 700 hospital admissions per year[69]. Noise also disturbs the sleep of some 170 000 people. The noise mapping for the previous reporting round for the reference year 2011 is complete. The action plans for the reference year 2013 are complete.

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

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[70] 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.

[67] Directive 2002/49/EC.
[68] WHO/JRC, 2011, 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, Copenhagen, Denmark.
[69] European Environment Agency, Noise Fact Sheets 2017.
[70] 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).

Water Framework Directive

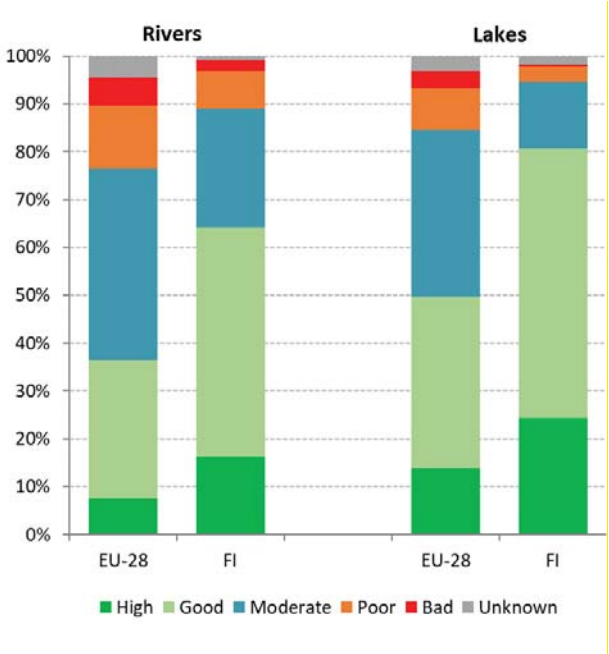
Finland has adopted and reported the second generation of River Basin Management Plans under the Water Framework Directive and the European Commission has assessed the status and the development since the adoption of the first River Basin Management Plans, including suggested actions in the EIR report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

The **most significant pressures** on surface water bodies in Finland is from atmospheric deposition (53%) diffuse agricultural pressures (24%) and diffuse polution from forestry (17%). For groundwater bodies the significant pressure was diffuse pollution from transport with 7% of groundwater bodies affected.

Chemical pollution was the **most significant impact** on surface water (51% of surface water bodies), followed by nutrient pollution (29%). For 97% of groundwater bodies the impact type was unknown.

A large percentage of surface water bodies had unknown status/potential in the first River Basin Management Plans (52.8%) which was reduced to 1.4% in the second River Basin Management Plans. Significant progress has therefore been made. The ecological status/potential in Finland is illustrated in Figure 17.

Figure 17: Ecological status or potential of surface water bodies in Finland[71]



Overall, there has been a 2.3 fold increase in the number of monitoring sites in Finland between the first and second River Basin Management Plans.

A significant proportion of surface water bodies included in surveillance monitoring were not monitored for all required biological quality elements. There is still a predominant focus on the monitoring of phytoplankton in coastal waters and lakes, and on the physicochemical quality elements in all water categories. There has been some progress on this aspect since the first River Basin Management Plans but Finland is still not consistent with the Water Framewrok Directive on this issue.Overall, there was a decrease in the proportion of surface water bodies with **good chemical status** from 64% down to 49%, similar decreases occurred across all water body types (artificial, heavily modified and natural). In the meantime, the proportion of surface water bodies that fail to achieve good chemical status dramatically increased between the two cycles, from 0.44 % to 49 %, which is linked to the considerable reduction in surface water bodies at unknown status.The **quantitative status of groundwater bodies** deteriorated slightly overall but 98% were still considered to be in good quantitative status. It should in this context be noted that 96% of groundwater bodies are not monitored for quantitative status.

In general, the amount and quality of readily available information regarding the Programmes of Measures has improved between the first and the second River Basin management Plan. However, some significant pressures identified in the RBMPs are not addressed by measures and indicators of the gaps to be filled for significant pressures were reported fairly sporadically across River Basin Districts and only for 2015.

Finland states for example that good progress in reducing pollution from point sources has been achieved in urban and industry sectors and that there has also been progress with measures associated with forestry, rehabilitation of watercourses and in managing hydromorphological pressures as well as in groundwater protection. But more measures are needed for example regarding agriculture.

Nitrates Directive

In accordance with the Nitrates Directive, Finland applies mandatory measures over its whole territory. Data for 2012-2015 showed that nitrate concentrations in groundwater and surface waters did not raise particular concern. However, issues with nutrients should not be underestimated. Finland is one of the countries bordering the Baltic Sea, which is still heavily affected by nutrients pollution, despite improvements in data on the trophic status for coastal waters.

[71] EEA, WISE dashboard.

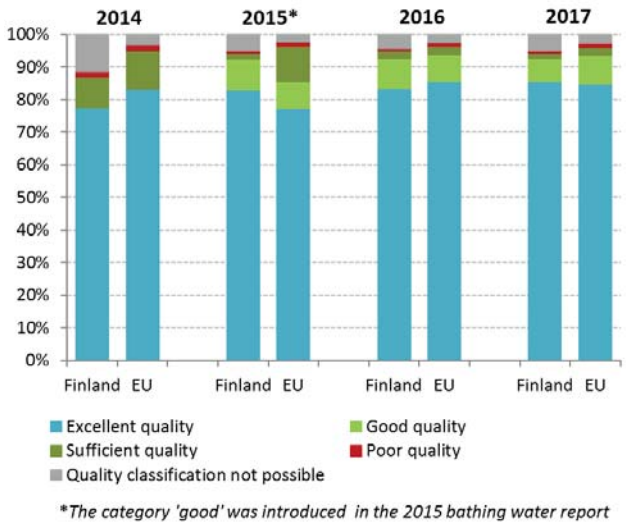
Drinking Water Directive

On drinking water, no new data is available since the previous EIR report[72].

Bathing Water Directive

Figure 18 shows that in 2017, out of the 299 Finnish bathing waters, 85.6 % were of excellent quality, 7 % of good quality and 1.7 % of sufficient quality (83.4 %, 9.3 % and 2.3 % respectively in 2016). In 2017, two bathing waters were of poor quality in Finland[73]. Detailed information on Finnish bathing waters is available on a national portal[74] and via an interactive map viewer of the European Environment Agency[75].

Figure 18: Bathing water quality 2014 – 2017[76]



**The category 'good' was introduced in the 2015 bathing water report*

Urban Waste Water Treatment Directive

Finland has a high level of compliance with the requirements of the Urban Waste Water Treatment Directive. Overall, in Finland, 100 % of the wastewater is collected, and 95.2 % of the load collected is subjected to secondary treatment. Finally, 91.1 % of the wastewater load collected undergoes more stringent treatment. The estimated investment needed to ensure adequate treatment of the remaining urban wastewater is EUR 25.7 million[77].

Floods Directive

Significant investment needs still exist in Finland to accelerate compliance with 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. Finland has estimated its investment costs for 99 measures related to flood risk management planning at EUR 472 million.

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.

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

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, Finland's Flood Risk Management Plans do not yet include a strong link between the objectives and the measures and do not clarify whether the planned measures are sufficient to reach the objectives and by when. In addition, there is scope for ensuring coordination with the National Climate Change Adaptation Strategy.

2019 priority actions

- Take steps to further improve monitoring of surface waters, to cover all water bodies for all relevant quality elements, including hydromorphological quality elements and River Basin Specific Pollutants in coastal waters
- Take effective basic and supplementary measures to address diffuse pollution from agriculture, mainly phosphates (e.g. measures to prevent soil runoff and sedimentation, proper disposal of manure, integrated pest management).
- Take steps to ensure that the Flood Risk Management Plans are coordinated with the National Climate Change Adaptation Strategy.

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.

[72] Compliance with the Drinking Water Directive microbiological and chemical parameters as last reported was very high.
[73] European Environment Agency, 2017. European bathing water quality in 2016, p. 17.
[74] Valvira, National Supervisory Authority for Welfare and Health, Finnish bathing waters
[75] European Environment Agency, State of bathing waters
[76] European Environment Agency, 2018. European bathing water quality in 2017, p. 21.
[77] 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 EU's chemicals legislation[78] 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[79] that showed that enforcement activities are still evolving. Member States cooperate closely within the Forum for Exchange of Information on Enforcement [80]. This cooperation 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 harmonies national 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 (e.g. some tend to systematically report higher compliance than the EU average and others lower).

A 2015 Commission study already highlighted the importance of harmonised market surveillance and enforcement when implementing REACH at Member State level, deeming it to be a critical success factor in the operation of a harmonised single market[81].

In March 2018, the Commission published an evaluation of REACH[82] underlining the need to improve enforcement in order to ensure a level playing field, meet the REACH objectives and ensure consistency with measures that aim to improve environmental compliance and governance. For this, consistent reporting of Member States' enforcement activities was considered of key importance.

Various authorities are responsible for the enforcement of the REACH, CLP and Biocide Product Regulations in Finland[83].

The Ministry of Social Affairs and Health and the Ministry of the Environment are responsible for the overall management and supervision of the REACH, CLP and Biocide Product Regulations in Finland.

The Finnish Safety and Chemicals Agency (Tukes) has been appointed as the Competent Authority of REACH and CLP and the Competent Authority of the Biocides Product Regulation (BPR). Tukes is responsible for enforcement of all REACH, CLP and BPR provisions on the marketing of chemicals, biocides and treated articles. Tukes is responsible for the national helpdesk for REACH, CLP and BPR.

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[84]. 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[85], the Green Leaf Award[86] and the Green City Tool[87].

Financing greener cities

Finland has earmarked EUR 39.5 million or 5 % of its allocation under the European Regional Development Fund (ERDF) for investment in sustainable urban development actions (as part of its 'integrated territorial investment') mainly in the six biggest cities of Finland[88].

Finland participates in the European Urban Development Network[89]. The network includes more than 500 cities across the EU responsible for implementing integrated actions based on sustainable urban development strategies financed by ERDF in the 2014-2020 period.

Among the network's initiatives, the ERDF is supporting urban innovative actions (UIA) as a way of testing new and unproven solutions to address urban challenges. The

[78] 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.
[79] European Chemicals Agency, Report on the Operation of REACH and CLP 2016.
[80] ECHA, on the basis of the projects REF-1, REF-2 and REF-3.
[81] European Commission. (2015). Monitoring the Impacts of REACH on Innovation, Competitiveness and SMEs. Brussels: European Commission.
[82] COM(2018) 116 final: Commission General Report on the operation of REACH and review of certain elements. Conclusions and Actions. Brussels, 5.3.2018.
[83] ECHA, National Inspectorates - Finland
[84] European Commission, Eurostat, Urban Europe, 2016, p.9.
[85] European Commission, European Green Capital
[86] European Commission, European Green Leaf Award
[87] European Commission, Green City Tool
[88] European Commission, Summary of the Partnership Agreement for Finland 2014-2020, 2014.
[89] European Commission, The Urban Development Network.

UIA has a total ERDF budget of EUR 372 million for 2014-20[90].

One UIA project (CitiCAP, with a budget of EUR 3.8 million) is running in Lahti and deals with sustainable urban mobility. Its aim is to find the most inspiring ways of getting more people to walk, cycle and use public transportation. Through CitiCAP, Lahti will develop a completely new public incentive, the personal carbon trade, that it hopes will revolutionise people's participation in climate change mitigation.

Another UIA project (EUR 3.4 million budget) is being undertaken in Lappeenranta and deals with what is called the urban infra revolution. It concerns circular economy materials and the development of novel methods to produce recyclable and functional urban construction products. The hope is that its circular economy and low-carbon solution will revolutionise urban construction engineering. The side streams from industry are utilised in urban construction by combining them to produce a high-value material to replace concrete. CO2 emissions are reduced by avoiding the use of cement and preferring local sources for materials.

Participation in EU urban initiatives and networks

Finnish municipalities are generally involved in EU environmental protection and climate change initiatives.

Various Finnish cities, communities and regions are involved in the URBACT initiative to support sustainable urban development. It is through their participation in five different thematic networks that they are doing this[91].

The Urban Agenda for the EU also provides a network for different levels of government to address the sustainability of cities. The city of Helsinki is a lead partner in the partnership for Air Quality[92].

Urban development policy is becoming increasingly prominent in Finland. The major cities are being used more systematically as engines to power the growth of regions and the whole country. Major cities have signed growth agreements to increase their competitiveness and economic resilience, to improve land use, housing and transportation and to become more socially sustainable.

Several Horizon 2020 network projects have also contributed to the sustainability of Finnish cities. The *CIVITAS* project includes three municipalities representing Finland in a common effort to achieve cleaner and better transport in cities[93].

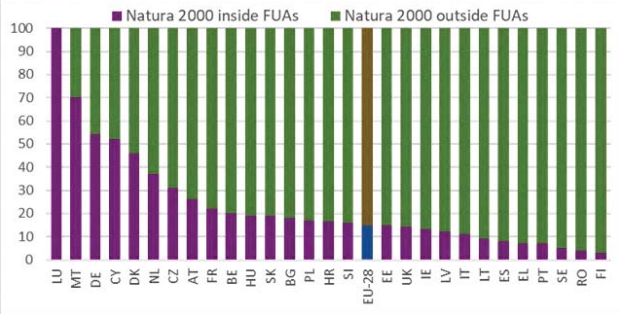
Finnish cities are also actively involved in initiatives such as Eurocities and the EU Covenant of Mayors (12 Finnish cities are participating in the EU Covenant of Mayors). By May 2018, Helsinki, Joensuu, Lahti, Oulu, Tampere and Vantaa had already submitted their 2020 action plans and their results are now being monitored. Another 3 cities have presented their climate action plan and commitments for either 2020 or 2030[94].

These urban initiatives and networks should be welcomed and encouraged, as they contribute to a better urban environment. In 2017, 10.3 % of the Finnish population living in cities considered their residential area to be affected by pollution, grime or other environmental problems, up from 8.6 % in 2016 and 10.1 % in 2015. These figures are significantly lower than the EU-28 levels (20% in 2017 and 18.9 % in 2016), and similar to Sweden and Denmark[95].

Nature and cities

Only 3 % of the Natura 2000 network in Finland is to be found in functional urban areas[96], well below the EU average of 15 % (see Figure 19).

Figure 19: Proportion of Natura 2000 network in Functional Urban Areas (FUA) [97]



Urban sprawl

Finland had a weighted urban proliferation rate, at 0.61 UPU/m^2 [98] in 2009 compared to a European average (EU-28+4) of 1.64 UPU/m^2, having increased by 3.4 % from 2006 to 2009[99].

[90] European Commission, Urban Innovative Actions.
[91] URBACT, Associated Networks by country.
[92] European Commission, Urban Agenda for the EU
[93] European Commission, Horizon 2020 Civitas Project.
[94] Covenant of Mayors for Climate and Energy, Country signatories.
[95] European Commission, Eurostat, Pollution, grime or other environmental problems by degree of urbanisation.
[96] European Commission, Definition of Functional Urban Areas.
[97] European Commission, The 7th Report on Economic, Social and Territorial Cohesion, 2017, p. 121.
[98] Urban Permeation Units measure the size of the built-up area as well as its degree of dispersion throughout the region.
[99] EEA, Urban Sprawl in Europe, Annex I, 2014, pp.4-5.

Traffic congestion and urban mobility

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

The total number of road vehicles in Finland rose to 3.3 million in 2016, increasing the rate of vehicles per 1 000 inhabitants from 580 in 2014 to 604 in 2016.

However, this increase has resulted in the average driver spending a lower number of hours annually in road congestion, from 19.9 in 2014 to 17.9 hours in 2016. This means that Finland was well below the worst performer in the EU (i.e. the UK with 45.1 hours)[100].

Road traffic intensity per unit of GDP in Finland in 2014 was 310 vehicle kilometres per USD 1 000, which was above the OECD Europe average of 254 veh.-km per USD 1 000[101].

The modal split of passenger transport[102] in 2015 shows that passenger cars in Finland accounted for 85 % of inland passenger transport (EU-28 83.4 %), with buses and trolley buses accounting for around 9.7 % (EU-28 9.1 %) and trains for 5.3 % (EU-28 7.6 %)[103].

[100] European Commission, Hours spent in road congestion annually.
[101] 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.
[102] The relation between mode of transport and kilometres travelled (excluding bicycles and other alternative methods).
[103] 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

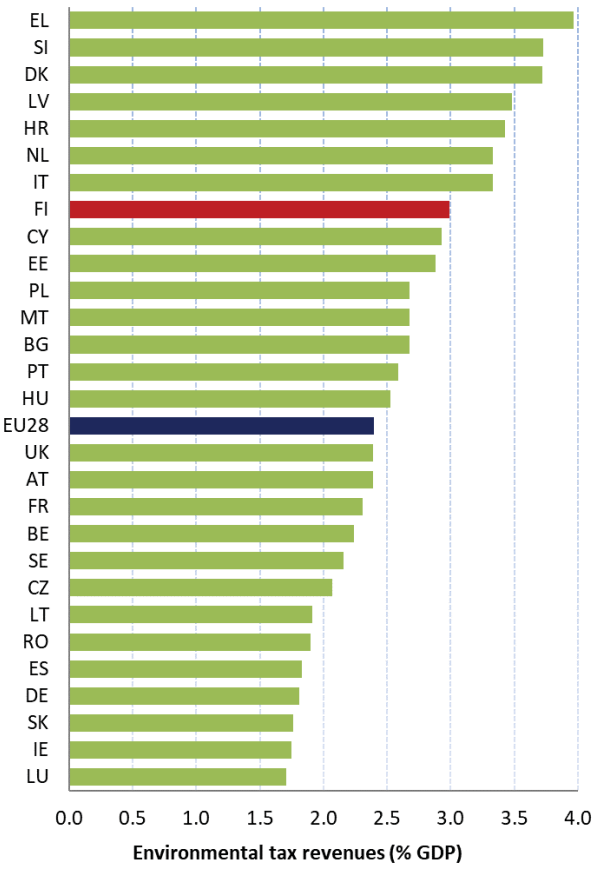
Financial incentives, taxation and other economic instruments are effective and efficient ways to meet environmental policy objectives. The circular economy action plan encourages their use. Environmentally harmful subsidies are monitored in the context of the European Semester and the energy union governance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

Finland's revenue from environment-related taxes remains above the EU average. Environmental taxes accounted for 2.99 % of GDP in 2017 (EU-28 average 2.4 %) as shown in Figure 20, and energy taxes for 1.99 % of GDP against an EU average of 1.84 %[104]. In the same year, environmental tax revenues were 6.88 % of total revenues from taxes and social security contributions (higher than the EU-28 average of 5.97 %).

The taxation structure shows that the proportion of revenues from labour tax in relation to total tax revenues is higher than the EU average, with 51.3 % in 2016, while the implicit tax burden on labour was 40.7 %[105]. Consumption taxes remained relatively low (32.7 %, 15th in EU-28), which points to some potential for shifting taxes from labour to consumption and in particular to environmental taxes. Nevertheless, taxes have recently been increased on transport fuels and on the energy content tax and CO2 tax on heating fuels.

The Commission has repeatedly noted in the European Semester that revenue from environmental taxes in Finland has increased in recent years and is one of the highest in the EU. In the 2018 country report for Finland, the Commission pointed out that the composition of environmental taxes has changed, with taxes on CO_2 from heating, power plants and machinery gradually increasing and with the taxation on waste also rising[106]. Similarly, the report suggests introducing new policy instruments, such as taxes or charges, to promote waste prevention, make reuse and recycling more economically attractive and shift reusable and recyclable waste away from incineration (see Chapter 1 on Waste management).

Figure 20: Environmental tax revenues as % of GDP in 2017[107]



It is also worth mentioning that the deposit refund system and packaging tax are considered very successful thanks to close cooperation between the parties concerned[108].

Meanwhile, fossil fuel subsidies decreased in the past decade and had almost disappeared by 2016. Tax exemptions, however, increased during the last years and were in place in 2016 for fossil fuels used in transport, leisure flights, mobile machinery, agriculture, energy intensive enterprises, heating, etc. These exceptions added up to EUR 1 600 million in 2016[109].

Substantial progress has been made in reducing the 'diesel differential' (difference in the price of diesel in

[104] Eurostat, Environmental tax revenues, 2018.
[105] European Commission, Taxation Trends Report, 2017.
[106] European Commission, European Semester Country Report 2018, p. 17.
[107] Eurostat, Environmental tax revenues, 2018.
[108] Institute for European Environmental Policy, Case Studies on Environmental Fiscal Reform, Deposit refund system in Finland.
[109] OECD, Inventory of Support Measures for Fossil Fuels, 2018.

relation to petrol) since 2005. In 2016, there was a 32 % gap between petrol and diesel tax rates, while in 2005 it was 84 %[110]. Excise tax rates levied on petrol and diesel in 2016 remained constant in comparison with 2015 rates (EUR 0.68 per liter for petrol and EUR 0.51 for diesel)[111].

CO_2-based motor vehicle taxes are in place in the country. The registration tax and the annual circulation tax for cars are based on emissions. The excise duties for road traffic fuels are dependent on the energy content and CO_2 emissions[112].

Incentives to encourage the purchase of cars with lower CO_2 emissions were in place in 2016. These incentives were linked to annual circulation taxes and subsidies and to road tolls, congestion and low emission zone charges. But they were also linked to the acquisition of cleaner vehicles. There were no incentives connected to the preferential use of road infrastructures[113]. New vehicles purchased in Finland are as environmentally friendly as the average in the EU, with average CO_2 emissions of 120 grams per kilometre (EU average of 118 grams in 2016)[114].

The use of alternative fuels in new passenger cars sold in Finland has considerably increased in recent years. The share of new passenger cars using alternative fuels was four times higher in 2016 than in 2013[115]. A growing number of charging points and aid for acquiring fully electric vehicles are also supporting the market uptake of electric cars.

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[116].

A national strategy on green public procurement is included in the Finnish government's 2013 Decision on the Promotion of Sustainable Environmental and Energy Solutions (cleantech solutions) in Public Procurement.

Finland has set ambitious targets for the central government but also for regional and local government, as recommendations. Targets have also been set which increase progressively over time and aim to achieve 100 % GPP at the central level[117]. Finland is aiming for near-zero energy building after 2017 in the new construction of public buildings. The percentage of new motive power solutions used (e.g. electric, ethanol, natural gas or hybrid) must account for at least 30 % of all vehicles in use. In addition, 10 % of the food served in public institutions must be organic by 2015 and 20 % by 2020.

GPP criteria are developed at the national level. There is guidance and criteria for 16 procurement areas, including food and catering, vehicles and transport, construction, energy services, energy-related products, and textiles (workwear). GPP criteria are also under development for furniture, cleaning services, professional kitchen appliances, and printing services.

To support the strategic use of public procurement, Finland set up a national competence centre for sustainable and innovative public procurement in March 2018. Core services include implementing innovative procurement strategies, piloting Green Deals, sustaining a national network for change and creating pathways to international procurements and funding.

A European Parliament study notes that Finland has partially implemented the GPP national action plan[118].

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.

[110] European Environment Agency 2017, Environmental taxation and EU environmental policies, p. 27.
[111] European Commission, Taxes in Europe Database, 2018.
[112] ACEA, CO_2 based motor vehicle taxes in Europe.
[113] European Environmental Agency, Appropriate taxes and incentives do affect purchases of new cars, 18 May 2018.
[114] European Environment Agency, Average CO2 emissions from new passenger cars sold in EU-28 Member States plus Norway, Iceland and Switzerland in 2016.
[115] European Commission, Transport in the European Union Current Trends and Issues, 2018, pp.27-28.
[116] 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 environmental criteria for products and services, based on a life-cycle approach and scientific evidence base.
[117] Green public procurement and the EU action plan for the circular economy, European parliament, 2017.
[118] European Parliament, Green Public Procurement and the Action Plan for the Circular Economy, 2017, pp. 79-80.

Achieving sustainability involves mobilising public and private financing sources[119]. Use of the European Structural and Investment Funds (ESIFs)[120] 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[121] and the European Fund for Strategic Investments (EFSI)[122] may also support the implementation and spread of good practices.

In the 2017 Eurobarometer[123] on attitudes of EU citizens towards the environment, 87 % of Finnish citizens support greater EU investment in environmental protection in general (EU-28 average 85 %).

European Structural and Investment Funds 2014-2020

Finland has been allocated EUR 3.76 billion from ESIF over the period 2014-2020 for five national and regional programmes (See Figure 19). With this EU funding and a national contribution of EUR 4.66 billion, Finland has a total budget of EUR 8.42 billion for investing in various areas such as: improving competitiveness, boosting research and innovation, creating employment, facilitating education and training and transitioning to a low-carbon economy and protecting the environment.

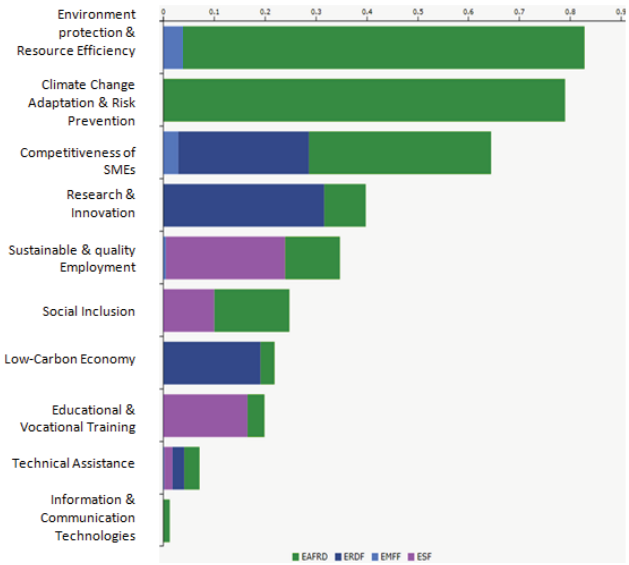
Cohesion policy

Finland is managing two operational programmes under EU cohesion policy for 2014-2020 (one for mainland Finland and one for the Åland Islands), which will receive funding from the European Regional Development Fund (ERDF) and the European Social Fund (ESF).

For 2014-2020, Finland has been allocated around EUR 1.47 billion in total cohesion policy funding of which:

- EUR 999.1 million for more developed regions (all);
- EUR 161.3 million for European territorial cooperation;
- EUR 305.3 million for the northern sparsely populated regions.

Figure 21: ESIF 2014-2020 – EU allocation by theme, Finland (EUR billion)[124]



Of this cohesion policy funding, ESF in Finland will represent a minimum of EUR 515 million. The actual amount will be determined based on the specific challenges the country needs to address in the areas covered by the ESF.

ERDF funding will be particularly targeted at innovation and research on innovative energy technology, including offshore energy production and energy efficiency, smart buildings, wood construction technology, the development of models and processes and pilot projects. ERDF funding will focus on new, low-carbon products and services, which will also become available on the market through the low-carbon strategies of towns and cities. SMEs will improve their energy efficiency through new energy-efficient innovations and investments that support sustainable growth. In particular, this will open up opportunities for new types of energy services, promote business activities in rural areas, and help find solutions for decentralised energy production.

The shift to a low-carbon economy is a high priority for ERDF in Finland: instead of allocating 20 % to this thematic objective (the regulatory requirement), Finland has allocated 25 %.

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

[120] 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'.

[121] European Commission, LIFE programme.

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

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

[124] European Commission, European Structural and Investment Funds Data By Country

Rural development

The rural development programme for mainland Finland outlines Finland's priorities for using around EUR 5.7 billion of public money. Of this package, 28 % will go toward agri-environment climate measures (EUR 1.6 billion) while other environmentally focused measures such as organic farming will receive about 6 % of the overall package (EUR 333 million).

For example, Finland has recently focused on the prevention of extensive forest damage caused by damaging agents already existing in Finland in order to provide compensation to the silviculture and forestry sector. The aim is to help maintain/restore forest ecosystems and biodiversity or the traditional landscape after damage or deterioration to the growth or quality of trees in Finland's forests caused by invertebrates, fungi, bacteria or viruses. This scheme focuses on supporting the use of biological pesticides and not chemically based substitutes that are more severe.

European Maritime and Fisheries Fund

Finland's investment package for its maritime, fisheries and aquaculture sectors amounts to EUR 140.9 million, including EUR 74.4 million of EU funds.

Finland's sustainable fishing operational programme aims to promote environmentally sustainable, resource-efficient, innovative, competitive and knowledge-based fisheries. The programme involves measures and investments that drive profitable operations, promote demand for fish, increase logistical efficiency, improve gear selectivity, approach maritime spatial planning from the perspective of fisheries and improve the public image of the fisheries sector by promoting dialogue and conflict management.

Multiannual innovation programmes for sustainable fishing and the environmental restoration of fisheries will be launched in cooperation with stakeholders. Working together, industry, administrators, scientists and environmental experts will develop methods to help fishermen adjust to operating close to a protected seal population, for example.

For aquaculture, the EMFF support will target investments that promote sustainable growth and renewal within the sector and encourage the diversification of production and a reduction in environmental impact. A multiannual research and development programme will operate in cooperation with stakeholders. International cooperation will be reinforced in the Baltic Sea region and with the Nordic countries.

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, Finland had signed agreements for EUR 164 million for projects under the CEF Transport[125].

Horizon 2020

Finland has benefited from Horizon 2020 funding since the programme started in 2014. As of January 2019, 584 participants have been granted a maximum amount of EUR 233.8 million for projects from the Societal Challenges work programmes dealing with environmental issues[126] [127].

In addition to the abovementioned work programmes, climate and biodiversity expenditure is present across the entire Horizon 2020. In Finland, projects accepted for funding in all Horizon 2020 working programmes until December 2018 included EUR 244 million destined to climate action (28.2 % of the total Horizon 2020 contribution to the country) and EUR 40 million for biodiversity-related actions (4.7 % of the Horizon 2020 contribution to the country)[128].

LIFE programme

The LIFE programme is the EU's funding instrument for the environment and climate action. Since 1992, when the LIFE programme was launched, a total of 141 projects have been co-financed in Finland[129]. Together, they represent a total investment of EUR 268 million, of which EUR 124 million from the EU. Of these projects, 89 focused on environmental innovation, 51 on nature conservation and 1 on information and communication.

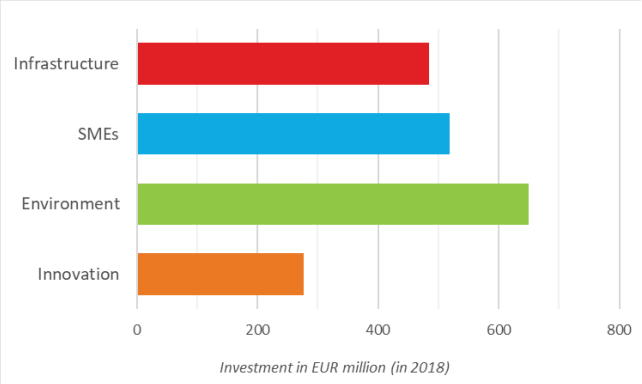
For 2014-2017, the EU allocated EUR 10 million in funding to Finnish projects[130]. The LIFE EconomisE project is one of these projects. It is working to unlock the investment potential for a resilient low-carbon building stock, with more than EUR 500 000 in EU funding[131].

[125] European Commission, Investments in Finland, 2019, p. 1.
[126] 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.
[127] 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.
[128] European Commission own calculations based on CORDA (COmmon Research DAta Warehouse).
[129] European Commission, LIFE in Finland, 2017.
[130] Commission services based on data provided by EASME.
[131] European Commission, LIFE EconomisE.

European Investment Bank

The EIB loans in Finland amounted to over EUR 7.1 billion for 2013-2017. In 2018 alone, the EIB Group[132] lent Finnish businesses and public institutions more than 1.9 EUR billion, as shown in Figure 22. Of this, EUR 649 million (34 %) were directly invested in environment-related projects.

Figure 22: EIB loans to Finland in 2018[133]



European Fund for Strategic Investments

The European Fund for Strategic Investments (EFSI) is an initiative to help overcome the current investment gap in the EU. By January 2019, the EFSI had mobilised more than EUR 2.0 billion in Finland, and the secondary investment triggered by those funds is expected to be more than EUR 7.9 billion[134].

Funding for green infrastructure comes from the overall framework for financing biodiversity conservation in Finland. This includes dedicated funding for nature conservation and funding under different sectors (agriculture, forestry, fisheries etc.). As in all EU countries, the funding is a blend of EU sources (e.g. rural development programme measures under the common agricultural policy) and national sources.

National environmental financing

Finland spent EUR 499 million on environmental protection in 2016, the same amount spent in 2015[135]. Of these payments, 15 % were allocated for waste management (EU average 49.7 %). EUR 175 million were allocated for pollution abatement (35 % of total). Of Finland's environmental expenditure, 14 % was allocated to protect biodiversity and the landscape (EUR 70 million)[136]. Between 2012 and 2016, the general government funding for environmental protection totalled EUR 2.54 billion[137].

As it has been mentioned through the report, one of the challenges for Finland is to ensure that environmental financing remains at an adequate level. Existent financial gaps in nature protection are delaying the correct implementation of EU environmental law and policies. Therefore, ensuring financial resources to reduce the implementation gap should be considered as a priority for the country.

2019 priority action

- Seize the funding possibilities for Natura 2000 under the next MFF, including in relation to preventive measures against potential damage caused by protected species.

[132] The EIB Group includes EIB and EFSI investments and loans.
[133] EIB, Finland and the EIB, 2018.
[134] European Investment Bank, EFSI project map.
[135] Eurostat, General Government Expenditure by function, 2018.
[136] No data is available on the funds used for waste water management.
[137] Eurostat, General Government Expenditure by function, 2018.

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.

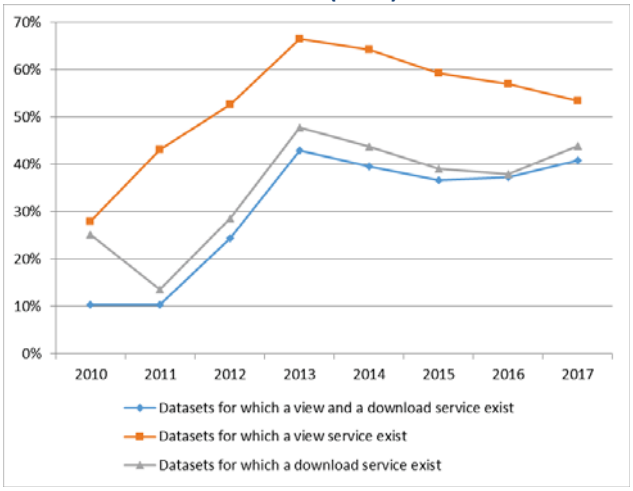
It is of crucial importance to public authorities, the public and business that environmental information is shared efficiently and effectively[138]. Public participation allows authorities to make decisions that take public concerns into account. Access to justice is a set of guarantees that allows citizens and NGOs to use national courts to protect the environment[139]. It includes the right to bring legal challenges ('legal standing')[140].

Environmental information

Finland has an interlinked approach for the provision of the Environmental Information. Finland's Environment administration portal[141] provides all environmental information. Information on water and waste can be found on the portal of the Ministry of the Environment.[142] There are some missing datasets however for habitat, water, chemicals and waste directives.

Finland's implementation of the INSPIRE Directive leaves room for improvement. The country's performance was reviewed based on its 2016 implementation report[143] and its most recent monitoring data from 2017[144]. Finland has made good progress in coordination, dataset identification and documentation of data and has achieved good levels of implementation. Additional efforts are needed to make the data accessible through services, improve the conditions for data reuse and prioritise environmental datasets in the implementation. This is particularly true for those datasets identified as high-value spatial datasets for the implementation of environmental legislation[145].

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



Public participation

In Finland, public participation is generally governed by the Administrative Procedure Act (APA, 434/2003)[146], which contains provisions on good administration and on the procedure applicable in administrative matters. Moreover, the Environmental Protection Act (527/2014) and the Environmental Protection Decree (713/2014) and other sector-specific environmental laws ensure that parties involved and 'other persons' can submit their statement with the application documents during the permit and decision-making procedure. In Finland, there is also a well-established practice in public participation in legislative drafting.

The guidelines on consultation when drafting legislation in Finland have been identified as good practice in the Commission's Better Regulation Toolbox[147].

Finland has an action plan on open government, which is encouraging public participation across the board. The

[138] The Aarhus Convention, the Access to Environmental Information Directive 2003/4/EC and the INSPIRE Directive 2007/2/EC together create a legal foundation for the sharing of environmental information between public authorities and with the public. This EIR focuses on INSPIRE.
[139] 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.
[140] 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.
[141] The Republic of Finland, Joint website of Finland's environmental administration.
[142] The Ministry of the Environment, web portal
[143] INSPIRE FI country sheet 2017.
[144] INSPIRE monitoring dashboard
[145] List of high value spatial data sets
[146] E-Justice (2016), *Access to Justice in Environmental Matters -Finland*, 14.9.2016.
[147] European Commission, the Commission's Better Regulation Toolbox

plan includes commitments and measures to promote openness and public participation. [148]

The 2017 Eurobarometer[149] shows that in Finland, an overwhelming majority of those surveyed (83 % of respondents) strongly agree that an individual can play a role in protecting the environment, a significant improvement from 2014.

Access to justice

Finland does not provide clear, user-friendly online information on access to justice in environmental matters. Finnish law appears to use the geographical location or mandate of an individual or an NGO to determine whether or not they can bring legal challenges or make environmental appeals in court, thus limiting their possibility to do so. For instance, the local branch of Friends of the Earth was refused legal standing for an appeal against a local mining permit because Friends of the Earth's mandate is global, not local.

2019 priority actions

- 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.
- Better inform the public about their access to justice rights, notably in relation to air pollution and nature.
- Ensure that there is legal standing for individuals and environmental NGOs to bring legal challenges on air pollution and nature.

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[150]. It includes support measures provided by the authorities, such as:
(i) compliance promotion[151];
(ii) inspections and other checks that they carry out, i.e. compliance monitoring[152]; and
(iii) the steps that they take to stop breaches, impose sanctions and require damage to be remedied, i.e. enforcement[153].
Citizen science and complaints enable authorities to focus their efforts better. Environmental liability[154] ensures that the polluter pays to remedy any damage.

Compliance promotion and monitoring

The quality of online information to farmers on how to comply with obligations on nitrates and nature is an indicator of how actively authorities promote compliance in subject-areas with serious implementation gaps. Finnish official websites lack detailed information for farmers on how to comply with these obligations.

Major industrial installations present serious pollution risks. Public authorities are required to have plans to inspect them and must make individual inspection reports available to the public[155]. Finnish official websites fail to make this information available to the public.

Citizen science and complaint handling

Engaging the general public, including through citizen science, can deepen people's knowledge about the environment and help the authorities in their work. Citizen science is used for biodiversity in Finland[156].The availability of clear online information about how to make a complaint is an indicator of how responsive the authorities are to complaints from the public. However, the Finnish authorities do not provide people with clear

[148] Avoin Hallinto (2016), *Open Government partnership: Finland's self-assessment report*, P. 10,
[149] European Commission, 2017, Special 468 Eurobarometer, 'Attitudes of European citizens towards the environment'.

[150] 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.
[151] This EIR focuses on the help given to farmers to comply with nature and nitrates legislation.
[152] This EIR focuses on inspections of major industrial installations.
[153]This EIR focuses on the availability of enforcement data and co-ordination between authorities to tackle environmental crime.
[154] The Environmental Liability Directive 2004/35/EC, creates the framework.
[155] Article 23, Industrial Emissions Directive 2010/75/EU.
[156] Luomus (2016), *Seurantauutiset kaikille luonnosta kiinnostuneille*, 4.4.2016.

online information about how to file an environmental complaint.

Enforcement

When monitoring identifies problems, a range of responses may be appropriate. The Finnish authorities do not publish information on how the administration follows up on reports of non-compliance. Furthermore, no information is published on responses to cross-compliance breaches on nitrates and nature. Finland has produced a yearly report on environmental crime since 1998, with detailed statistics on environmental offences.

Tackling waste, wildlife and other environmental offences is especially challenging. It requires close cooperation between inspectors, customs authorities, police and prosecutors. Finland has a national-level working group for the coordination of preventative work against Environmental crime, as well as regional-level working groups (17 groups all around the country). Co-operation between authorities is done at these two levels and across working groups[157].

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 gathering better information on environmental damage and on financial security and guidance. The Commission is still collecting evidence on progress made.

2019 priority actions

- Better inform the public about compliance promotion, monitoring and enforcement by at least ensuring that the following information is available online: (i) guidance to Finnish farmers on how to comply with obligations on nitrates and nature, (ii) inspection plans and reports on industrial inspections, and (iii) guidance on how to file environmental complaints
- Publish information on the outcome of administrative enforcement action and the follow-up to detected cross-compliance breaches on nitrates and nature;
- Improve financial security for liabilities and ELD-guidance and publish information on environmental damage.

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 administrations have to have staff with the appropriate administrative and technical knowledge and skills. With the 2017 EIR, the Commission introduced the TAIEX-EIR PEER2PEER (P2P) instrument to facilitate peer learning between experts from different environmental authorities of Member States.

An expert from the Finnish Ministry of the Environment participated in a TAIEX-EIR P2P workshop in Budapest on 17-18 May 2018. There participants from the governments of Hungary, the Czech Republic, Slovakia and Poland received advice and guidance on how to prepare a national circular economy action plan from government experts from Finland, the Netherlands and Slovenia which have already adopted such a plan or roadmap or are more advanced in the process.

Coordination and integration

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

Finland was late in transposing the Directive but recently submitted the complete legislation.

The Commission encourages the streamlining the 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 environmental assessment procedure. In 2016, the Commission published guidance[158] on setting up

[157] Yhteistyöryhmä (2018), Ympäristötorjunnan toimenpideohjelma vuosille 2017-2018.

[158] Commission notice — Commission guidance document on streamlining environmental assessments conducted under Article 2(3) of the Environmental Impact Assessment Directive (Directive

coordinated and/or joint procedures that are simultaneously subject to assessments under the EIA Directive, the Habitats Directive, the Water Framework Directive, and the Industrial Emissions Directive.

Adaptability, reform dynamics and innovation (eGovernment)

On digital public services, Finland is ranked best in the EU with a score of 78.6/100 based on Europe's Digital Progress Report 2018, well above the EU28 average (57.5/100)[159].

Finland is one of the EU countries with the highest online interaction between public authorities and citizens. In July 2017, the eGovernment portal Suomi.fi was revamped, merging the former Suomi.fi portal for citizens and Suomi.fi Workspace pages for authorities' services, while the activities of EnterpriseFinland.fi were added by the end of 2017. It now provides the possibility for citizens to get to know their own information in the authorities' registers. Consequently, Finland performed much better than the previous year for open data at 90/100 compared to 76/100 the previous year according to Europe's Digital Progress Report 2018[160].

Enabling financing and effective use of funds

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

2019 priority action

- Finland can further improve the overall environmental governance.

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[161]. 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.

Forests: EU Timber Regulation (EUTR)[162]/ Forest Law Enforcement, Governance and Trade (FLEGT) Regulation[163]

Between March 2015 and February 2017, Finland performed 20 checks on operators that were planned for domestic timber and 32 checks for imported timber instead of the 30 initially planned. In general, the number of checks remains low compared to the estimated number of operators placing timber on the EU market for the first time in Finland[164]. Of the 30 notices of remedial action that the Finnish authorities imposed on operators importing timber who were found to have an inappropriate due diligence system, only four resulted in injunctions.

On cooperation (Article 12, EUTR), the Finnish authorities reported that they cooperated with EU and non-EU institutions, particularly with authorities in the United States and with non-governmental organisations (NGOs). Finland is also a member of the Nordic Baltic cooperation network.

Genetic resources: Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising (ABS)[165]

In accordance with the EU ABS Regulation, which transposes into the EU legal order the required compliance measures under the Nagoya Protocol, Finland designated competent authorities and enacted sanctions for infringements of the EU ABS Regulation. No due diligence declaration has been submitted so far, and no penalties have been applied. Finland submitted its first report to the Commission on applying the EU ABS Regulation (end of 2017).

International wildlife trade: the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)[166]

Finland has established relevant national authorities and is regularly processing (requests for) documents for importing, (re-) exporting and intra-EU trade. This is

2011/92/EU of the European Parliament and of the Council, as amended by Directive 2014/52/EU).

[159] European Commission, Europe's Digital Progress Report (EDPR) 2018 Country Profile Finland, p. *10*.

[160] European Commission, Europe's Digital Progress Report (EDPR) 2018 Country Profile Finland, p. *10*.

[161] UN General Assembly Resolution 72/277 and Organizational session of the ad hoc open-ended working group.

[162] Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010

[163] Regulation (EC) No 2173/2005.

[164] On the basis of customs data, it was estimated that 350'000 Finnish operators placed domestic timber on the EU market, and 2'000 imported timber.

[165] Regulation (EU) No 511/2014 of the European Parliament and of the Council of 16 April 2014 on compliance measures for users from the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation in the Union Text with EEA relevance.

[166] The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

pursuant to the obligations laid down in the Basic Regulation[167], which involve transposing the major obligations of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) into EU law. Reports on seizures of illegal shipments, in particular those reported every 6 months to TRAFFIC under its contract with the Commission, and those exchanged through the EU-TWIX platform, testify to the activity of the customs authorities.

To ensure full implementation of the EU's wildlife action plan (2016) and improve the rate of detection of illegal activities, Finland reported on specific training courses organised for enforcement agencies, especially custom officers to develop their knowledge of EU wildlife regulations. Some of the training courses have been incorporated into the general curriculum on criminal activities, especially in police academies. Finland has also been financially supporting programmes against wildlife trafficking. It has been doing this through its development cooperation policy, e.g. through a multiannual project against illegal logging in Laos, conducted jointly with the World Bank.

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.

Finland has a long tradition of promoting sustainable development both in domestic policies and in international development cooperation[168]. The country has implemented various sustainable development programmes since the mid-1990s. In 2006, Finland adopted a comprehensive national strategy for sustainable development (*Towards Sustainable Choices. A Nationally and Globally Sustainable Finland*). It was prepared by the Finnish National Commission on Sustainable Development. The National Commission has a broad membership that includes approximately 90 organisations from civil society, industry, business, the labour market and the educational world. The National Commission also has representatives from the government, parliament, ministries, local and regional organisations, the Evangelical Lutheran Church of Finland, the indigenous Sámi people and other public, private and third sector stakeholders. The Prime Minister's Office acts as the Coordination Secretariat.

A key policy document for sustainable development (*The Finland We Want by 2050 — Society's Commitment to Sustainable Development*) was adopted in 2013. The document was updated in April 2016 to be in line with the 2030 Agenda for Sustainable Development (Agenda 2030).

The Prime Minister's Office is in charge of coordinating the country's national sustainable development policy and is responsible for implementing and drawing up the national implementation plan for Agenda 2030.

In addition to the National Commission on Sustainable Development, Finland has a Sustainable Development Expert Panel comprising eminent professors from different disciplines. The Panel challenges and enhances the work of the National Commission on Sustainable Development.

In 2016, Finland was one of the first four EU countries to submit a Voluntary National Review on the SDGs to the UN. According to Finland's Review, incorporating Agenda 2030 into national budget planning is a key precondition for its successful implementation in the country. The government aims to identify short and medium-term objectives that are tangible for inclusion in the budget planning of Finland's various administrative branches. Each administrative branch should incorporate these objectives in its budget proposals, as these proposals form the basis for preparing the national budget. In the public sector, implementation of Agenda 2030 will also require budgeting for objectives across administrative branches[169]. The ministries reported (*update) for the first time in August 2018 how the broader issues of the SDG implementation are progressing. The inclusion of SDG implementation in the budget is planned for 2019 [170].

[167] Council Regulation (EC) No 338/97.
[168] European Sustainable Development Network, Single country profile: Finland.
[169] Prime Minister's Office (2017), National report on the implementation of the 2030 Agenda for Sustainable Development. Finland, 10/2016.
[170] Finnish Government, Kestävän kehityksen toimintaohjelma Agenda 2030 etenee, 19.12.2017.