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Environmental Implementation Review 2022
Country Report - ESTONIA

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 2022: *Turning the tide through environmental compliance*

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Executive summary

The main challenges identified in past EIRs with regard to implementation of EU environmental policy and law by Estonia were:

- reducing the intensity of resource use to improve industrial resilience;
- creating greater capacity in recycling to offset the overcapacity in incineration and the mechanical biological treatment of waste.

Estonia is now on track to decouple municipal waste generation from economic growth and has made steady progress over the past decade on stepping up its **recycling** rate. However, with only 28.9% of municipal waste recycled in 2020, Estonia remains well below the EU average and needs to progress faster to achieve the 2025 targets. An increase in the **circular material usage** to 17.3% in 2020 - above the EU average - is a good achievement. However, with EUR 0.63 generated per kg of material consumed in 2020, **resource productivity** in Estonia is dragged down by resource intensive industries. After completion of the Technical Support Instrument project on Estonian waste system analysis, including good circular economy measures in the Recovery and Resilience Plan (RRP) and adoption of the circular economy action plan planned in 2022, Estonia has excellent conditions for accelerating its **transition towards a circular economy**.

Moving away from **oil shale** extraction and use is expected to bring along multiple benefits for the environment in terms of reduced amounts of waste and pollution, improved resource productivity and less pressure on water resources. This transition will be crucial to achieve the climate neutrality goal. Improvements are needed in the Land Use Land Use Change and Forestry (LULUCF) sector, as removals by sinks have decreased between 2013 and 2019 and **a six-fold decrease of the LULUCF carbon sink** by 2030 has been projected in the Estonian National Energy and Climate Plan (NECP).

In general terms of **biodiversity**, Estonia presents a mixed picture. It is the second-best Member State in the EU as to the share of EU-protected species and habitats in good conservation status and its uptake of organic farming of 22% is not far from the EU 2030 target of 25%. At the same time, most of its mire, forest and semi-natural grassland habitats remain at unfavourable status. Despite efforts to halt the deterioration, the numbers of key farmland and forest birds are declining under pressures from agriculture and forestry. For the **Natura 2000** network, Estonia has designated all Sites of Community Importance as Special Areas of Conservation, but still needs to establish site-specific conservation objectives and measures to meet its obligations under the Habitats Directive. Estonia also needs to improve the management of semi-natural grasslands and forests and enhance the protection and assessment requirements under Article 6 of the Habitats Directive by amending the Nature Conservation Act. Estonia is one the **pioneers** of **wetland restoration**. Estonia's expertise in promoting restoration will be very valuable under the future Nature Restoration Law, demonstrating that restored wetlands can bring multiple benefits and co-exist with successful farming practices. The new Estonian Nature Conservation Development Plan, which will be finalised by the end of 2022, would be an excellent tool to include the targets from the Nature Restoration Law – particularly in relation to the **restoration of peatlands, grasslands and forests**.

On **air pollution**, although the emissions of key air pollutants have decreased significantly over the last years, Estonia should continue to address emissions to air from usage of fossil fuels and other emitting sources replacing them with cleaner solutions.

On sustainable **water management**, Estonia demonstrates very high compliance with the Drinking Water Directive and the Urban Waste Water Treatment Directive except for the issues related to the use of individual or other appropriate systems in the sparsely populated areas. As for the Nitrates Directive, Estonia needs to reduce and prevent eutrophication of inland and marine surface waters where the agricultural pressure is significant. An acute **eutrophication** problem affecting 97% of the Baltic Sea is a shared problem with neighbouring states. A significantly large portion of waters in the region are assessed to be below good eutrophication status.

EU financing continues to provide support for the environmental implementation gap, and Estonia is due to receive over EUR 969.3 million from its RRP (2021-2026) in grants and EUR 2.2 billion from the cohesion policy (2021-2027). Estonia's environmental financing for investments was at an annual 1.25% of GDP in 2014-2020, with over two thirds of it coming from national sources. The environmental investment needs in the coming period (where country-level breakdown is available) are found to be in a similar range (1.13% of Estonia's GDP), suggesting that the majority of environmental investment needs would be met. Nevertheless, investment needs for water protection, wider environmental sustainability, higher circularity, R&D focused on environment-related issues as well as nature restoration can trigger additional needs for financing over baselines (i.e. an investment gap).

Part I: Thematic areas

1. Circular Economy and waste management

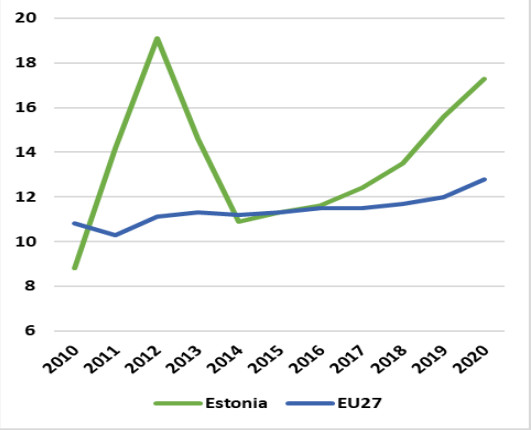
Measures towards a circular economy

The new Circular Economy Action Plan adopted in March 2020 is one of the main building blocks of the European Green Deal. The EU's transition to a circular economy will reduce pressure on natural resources and will create sustainable growth and jobs. It is also a prerequisite to achieve the EU's 2050 climate neutrality target and to halt biodiversity loss. The Action Plan announces initiatives along the entire life cycle of products, aiming to reduce the EU's consumption footprint and to double the EU's circular material use rate by 2030. It targets how products are designed, promotes circular economy processes, encourages sustainable consumption, and aims to ensure that waste is prevented and the resources used are kept in the EU economy for as long as possible.

The circular material use rate is a good indicator of an economy's circularity, as it includes all the materials that are fed back into our economy. Large differences in the circularity rate exist across countries. To help achieve the EU circular economy action plan's goal of doubling the EU circular material use rate by 2030, ambitious measures targeting the whole product life cycle are needed at a Member State's level. Such measures range from sustainable product design which can increase the durability, reparability, upgradability and recyclability of products, to other measures such as remanufacturing, increasing the circularity in production processes and recycling, as well as boosting eco-innovation and increasing the uptake of green public procurement.

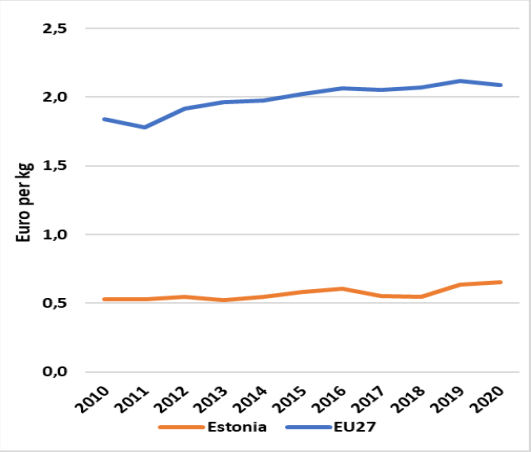
Estonia's circular (secondary) material use rate was 11.8% in 2016 and 17.3% in 2020, well above the EU average of 12.8%, demonstrating a strong increase in the secondary material usage in the past few years.

Figure 1 – Circular material use rate (%), 2010-20201



Resource productivity expresses how efficiently the economy uses material resources to produce wealth. Improving resource productivity can help minimise the negative impacts on the environment and reduce dependency on volatile raw material markets. As shown in Figure 2, with EUR 0.63 generated per kg of material consumed in 2020, resource productivity in Estonia is well below the EU average of EUR 2.09 per kg.

Figure 2: Resource productivity 2010-2020[2]



Circular Economy Strategy

The Commission encourages Member States to adopt and implement national/regional circular economy strategies covering the whole life cycle of products. This is because such strategies are one of the most effective ways to progress towards a more circular economy at Member State level. Since the launch of the European Circular

[1] Eurostat, Circular Economy Monitoring Framework.
[2] Eurostat, Resource productivity, EUR/kg, chain linked volumes.

Economy Stakeholder Platform in 2017[3], national, regional or local authorities have used the platform to share their strategies and roadmaps.

Currently, Estonia's circular economy action plan is in consultation. The strategy is entitled 'Estonian Circular Economy White Paper and Action Plan', and it is to be adopted in 2022. No implementation timetable is yet available. The strategy is also a part of the Environmental Development Plan scheduled for 2023. The Minister of Environment has established an advisory group at the level of deputy secretary-generals that consists of all ministries as well as the Government Office and will advise the Minister of the Environment in the process of developing policy measures under the Circular Economy White Paper. Transition to a circular economy is also stated as one of the priority reforms the new holistic national strategy document 'Estonia 2035' which was adopted by the Parliament in 2021.

Estonia does not have a specific sectoral strategy for plastics; the sector is currently being addressed only through the Single Used Plastics Directive. Nor does it have a specific sectoral strategy for textiles. A strategy on construction, however, is in place. In 2021, the long-term view on 'Construction 2035' was adopted. Through seven steps, the focus is on identifying the best developments for the construction sector, shaping a high-quality built environment.

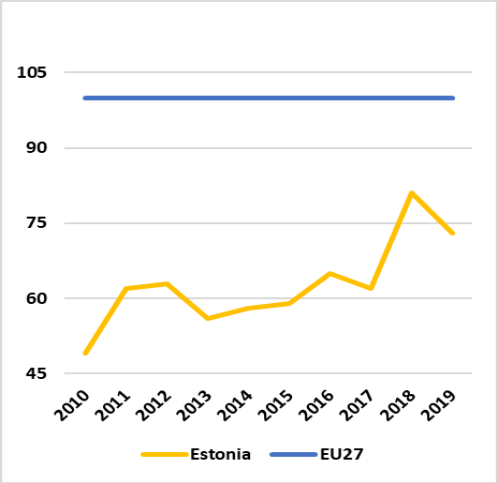
The adoption of the circular economy action plan by 2022 is also a reform included in the Estonian Recovery and Resilience Plan.

Eco-Innovation

A successful transition to a circular economy requires social and technological innovation. This is because the full potential of the circular economy can only be reached when it is implemented across all value chains. Eco-innovation is an important enabling factor for the circular economy. New approaches to product design and new business models can help to produce circularity innovations, creating new business opportunities.

In 2021, Estonia ranked 18th on the 2021 Eco-Innovation Index, with a total score of 97, resulting in an average eco innovation performer status. In three out of five components of the Eco-Innovation Index of 2021, Estonia performs below the EU average, namely on eco-innovation inputs, eco innovation activities and resource efficiency outcomes, while for ecoinnovation outputs and socioeconomic outputs, it performs above the EU average.

Figure 3 – Eco-innovation performance, 2010-2019[4]



Green Public Procurement (GPP)

Public procurement accounts for a large proportion of European consumption, with public authorities' purchasing power representing 14% of EU GDP. Public procurement can help drive the demand for sustainable products that meet repairability and recyclability standards.

8 323 public procurements were carried out in Estonia in 2020. The value of public procurement was EUR 3.7 billion which makes up 14% of GDP and 32% of the state budget. Official statistics shows that only 4.5% of the total number of procurements and 17% of the total procurement cost are GPP.

As from 1 January 2022, mandatory GPP criteria have been introduced for the central government sector for furniture, cleaning products and services, copying and graphic paper and computers and monitors. GPP is periodically monitored through the official electronic public procurement website (EProcurement Estonia). EU Ecolabel and the Eco-Management and Audit Scheme (EMAS)

EU Ecolabel and the Eco Management and Auditing Scheme (EMAS)

The number of EU Ecolabel products and EMAS-licensed[5] organisations in a given country provides some indication of the extent to which the private sector and national stakeholders in that country are actively engaged in the transition to a circular economy. It also shows how

[3] European Commission, Circular Economy Stakeholder Platform.
[4] European Commission - Directorate-General for Environment (DG ENV), Eco-innovation Observatory', Eco-innovation scoreboard and the eco-innovation index.
[5] EMAS is the European Commission's Eco-Management and Audit Scheme, a programme to encourage organisations to behave in a more environmentally sustainable way.

committed public authorities are to supporting instruments designed to promote the circular economy.

As of September 2021, Estonia had 974 products, out of 83 590 and 22 licences, out of 2 057 registered in the EU Ecolabel scheme , showing a low take-up of the products and licences[6]. Moreover, 20 organisations, amounting to 42 sites from Estonia are currently registered in EMAS, the European Commission's Eco-Management and Audit Scheme[7]. Since the last report in 2019, there have been 663 new product registrations of the EU Ecolabel, as well as ni,e new licences. Under EMAS, 12 new organisations were registered.

As Estonia has committed to the adoption of a circular economy action plan in its Recovery and Resiliance Plan, the corresponding priority action from 2019 is fulfilled.

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;
(iii) limiting energy recovery to non-recyclable materials and phasing out landfilling of recyclable or recoverable waste

This section focuses on the management of municipal waste[8] for which EU law sets mandatory recycling targets.

Preventing products and materials from becoming waste for as long as possible is the most efficient way to improve resource efficiency and to reduce the environmental impact of waste. Waste prevention and reuse are the most preferred options and are therefore at the top of the waste hierarchy. The amount of municipal waste generated is a good indicator of the effectiveness of waste prevention measures.

Estonia is one of the Member States with the lowest municipal waste generation per capita, with 383 kg/capita in 2020, well below the EU average of 505 kg/capita. Its total waste generation has increased only slightly between 2010 and 2018 and even decreased in 2019. The fact that Estonia's GDP has grown steadily during the same time indicates that Estonia is on track to decouple total waste generation from economic growth. Estonia's Waste Prevention Plan, implemented since 2014, might partially explain the positive total waste generation trend observed from 2014 onwards.

However, concerns have been raised about the lack of a unified data management system at the local level, and the quality of the data provided[9].

Figure 4: Municipal waste by treatment in Estonia, 2010-2020[10]

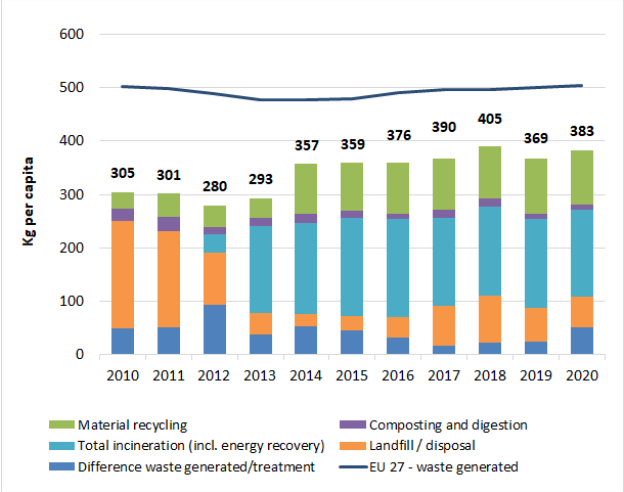


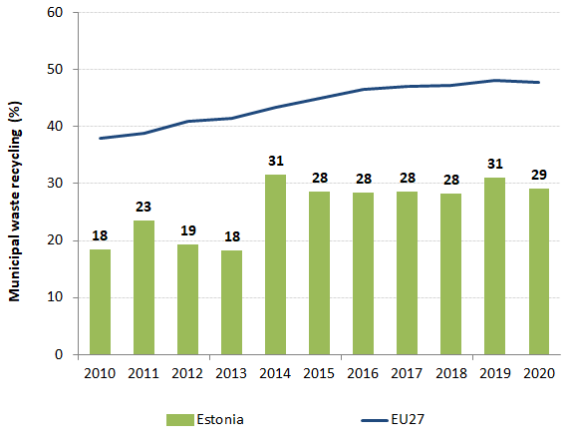
Figure 4 also shows municipal waste by treatment and by kg per capita. Estonia has moved away from heavy reliance on landfill to treating municipal waste by incineration, which accounted for 45% of waste treatment in 2019. Since 2014, landfill has increased again, although the latest figures for 2019 suggest that this trend is slowing down.

Estonia has made slow but steady progress over the past decade in stepping up its recycling rate but with only 29% of municipal waste recycled in 2020, it remains well below the EU average of 48%.

Figure 5 shows that Estonia needs to step up investment in recycling to meet the EU 2025 recycling targets.

[6] European Commission, Ecolabel Facts and Figures.
[7] As of May 2018. European Commission, Eco-Management and Audit Scheme.
[8] Municipal waste consists of (a) mixed waste and separately collected waste from households, including paper and cardboard, glass, metals, plastics, bio-waste, wood, textiles, packaging, waste electrical and electronic equipment, waste batteries and accumulators, and bulky waste, including mattresses and furniture; (b) mixed waste and separately collected waste from other sources, where such waste is similar in nature and composition to waste from households. (Directive 2008/98/EC, Art. 3 2b)
[9] World bank, Review and Recommendations for Estonian Municipal Waste Information Management
[10] Eurostat, Municipal waste by waste operation, October 2021

Figure 5: Recycling rate of municipal waste, 2010-2020[11]



The Commission's 2018 Early Warning report'[12] listed Estonia as one of the countries at risk of missing the EU 2020 target of recycling 50 % of municipal waste. The report listed key priority measures which Estonia should take to close the implementation gap. The Commission is currently finalising its analysis of the progress on the recommendations from the Early Warning Reports as a well as an analysis of progress towards achieving the 2025 waste recycling targets. This report will be presented at the end of 2022 and will make recommendations as appropriate.

Implementation of the 2018 waste legislative package

Estonia has notified the transposition of the 2018 waste package[13] to the Commission. A conformity assessment is now ongoing.

Waste Management Plans and Waste Prevention Programmes are instrumental for a sound implementation of the EU waste legislation. They set out key provisions and investments to ensure compliance with existing and new legal requirements (e.g. waste preventiion, separate collection for a number of specific waste streams, recycling and landfill targets). Revised plans and programmes were due on 5 July 2020.

Estonia has extended the current waste management plan (2014-2020) until the end of 2022 and intends to adopt the new updated waste management plan (2022-2028) by the end of 2022. When the plan is notified to the Commission the Commission will assess whether it meets the requirements of Article 28 of the revised Framework Directive on Waste.

Estonia benefited from the Technical Support Instrument project 20EE03 funded by the Structural Reform Support Programme 2020 for Estonian waste system analysis. Under this project, the World Bank assessed the Estonian municipal waste management system, analysed options and proposed an action plan and policy recommendations on how to improve its effectiveness and make it more circular. The project was completed in October 2021 and it will feed into the new waste management plan.

There has been some progress since the 2019 EIR as regards measures for improving waste management and increasing recycling rate, but a fair amount of work is still needed to fully address the recommendations. In light of the upcoming Early Warning Report 2022, all 2019 priority actions are proposed again.

2022 priority actions

- Introduce new policy instruments, including economic ones, to promote waste prevention, make reuse and recycling more economically attractive and shift reusable and recyclable waste away from incineration and landfilling.
- Set mandatory targets for recycling and generation of residual waste at the municipal level, with financial penalties for non-compliance. Develop and run implementation support programmes for municipalities to help support their efforts to organise separate collection and improve recycling performance.
- Improve and extend separate collection of waste, including for biowaste. Establish minimum service standards for separate collection (e.g. frequency of collections, types of containers etc.) in municipalities to ensure high capture rates of recyclable waste, and put in place civic amenity sites. Use economic instruments such as pay-as-you-throw.
- Shift reusable and recyclable waste away from incineration.
- Improve the functioning of extended producer responsibility systems, in line with the general minimum requirements on EPR[22] .

[11] Eurostat, Recycling rate of municipal rate, April 2022.

[12] European Commission, Report on the implementation of waste legislation, including the early warning report for Member States at risk of missing the 2020 preparation for re-use/recycling target on municipal waste, SWD(2018)422 accompanying COM(2018)656.

[13] 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.

2. Biodiversity and natural capital

The 2030 EU biodiversity strategy adopted in May 2020 aims to put the EU's biodiversity on a path to recovery and sets out new targets and governance mechanisms to achieve healthy and resilient ecosystems.
In particular, the strategy sets out ambitious targets to:
(i) protect a minimum of 30% of the EU's land area and 30% of its sea area and integrate ecological corridors, as part of a true trans-European nature network;
(ii) strictly protect at least a third of the EU's protected areas, including all remaining EU primary and old-growth forests;
(iii) effectively manage all protected areas, defining clear conservation objectives and measures, and monitoring them appropriately.
The strategy also sets out an EU nature restoration plan – a series of concrete commitments and actions to restore degraded ecosystems across the EU by 2030, and manage them sustainably, addressing the key drivers of biodiversity loss.

The EU's Habitats and Birds Directives are key legislative tools to deliver on the targets in the EU's biodiversity strategy for 2030, and are the cornerstones of the European legislation aimed at conserving the EU's wildlife[14].

Additional goals as set in the Estonian Nature Conservation Development Plan are to strictly protect at least 10% of forests, to restore 10 000 ha of mire habitats and to have 45 000 ha of semi-natural grasslands under active management by 2020. According to preliminary estimates, the level of management of grasslands will have reached 40 000 ha in 2020.

The Prioritised Action Framework (PAF) 2021-2027 foresees funding to improve management of 60 000 ha of semi-natural grasslands by 2028.

The new Strategy identifies 2030 goals reflected into more than 100 measures, each with corresponding indicators, priorities, deadlines, verification means, tools and responsible entities.

Estonia intends to compile management plans for protected habitats (wet forests, dry forests, rocky habitats, rivers, lakes, dunes, coastal habitats, marine habitats).

A national action plan for all forest habitats will be prepared under the LIFE integrated project (to be finalised by 2029).

In 1994, Estonia ratified the Convention on Biological Diversity.

Nature protection and restoration

Natura 2000[15], the largest coordinated network of protected areas in the world, is the key instrument to achieve the objectives in the Birds and Habitats Directives. These objectives are: (i) to ensure the long-term protection, conservation and survival of Europe's most valuable and threatened species and habitats; and (ii) to maintain or restore the favourable conservation status of these species and habitats. Key milestones towards meeting the objectives of the Birds and Habitats Directives are: (i) the setting up of a coherent Natura 2000 network; (ii) the designation of sites of community importance (SCIs) as SACs[16]; and (iii) the setting of site-specific conservation objectives and measures for all Natura 2000 sites.

Setting up a coherent network of Natura 2000 sites

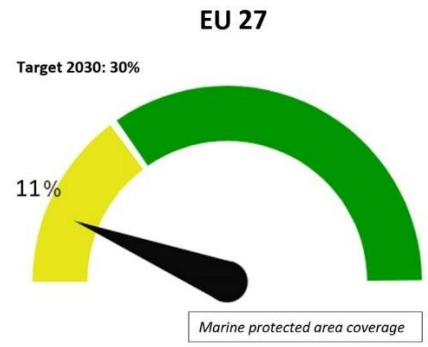
Estonia hosts 60 habitat types[17] and 95 species[18] covered by the Habitats Directive. The country also hosts populations of 75 bird taxa listed in the Birds Directive Annex I.[19]

By 2021, 17.9% of the national land area of Estonia was covered by Natura 2000 (EU coverage 18.5%), with Special Protection Areas (SPAs) classified under the Birds Directive covering 13.7% (EU coverage 12.8%) SCIs under the Habitats Directive covering 17.2% (EU coverage 14.2%) of Estonia's territory.

[14] These should be reinforced by the Nature Restoration Law, according to the new EU Biodiversity Strategy.
[15] Natura 2000 comprises Sites of Community Importance (SCIs) designated pursuant to the Habitats Directive as well as Special Protection Areas (SPAs) classified pursuant to the Birds Directive; figures of coverage do not add up due to the fact that some SCIs and SPAs overlap. Special Areas of Conservation (SACs) means a SCI designated by the Member States.
[16] Sites of Community Importance (SCIs) are designated pursuant to the Habitats Directive whereas Special Protection Areas (SPAs) are designated pursuant to the Birds Directive; figures of coverage do not add up due to the fact that some SCIs and SPAs overlap. Special Areas of Conservation (SACs) are SCIs designated by the Member States.
[17] EEA, Article 17 dashboard, Annex I total, 2019.
[18] EEA, Article 17 dashboard, Annex II + Annex IV excluding those in Annex II + Annex V excluding those in Annex II, 2019. This counting only takes into account species and habitats for which assessment of conservation status was requested.
[19] EEA, Article 12 dashboard, Annex I, 2020. This counting only takes into account birds taxa for which information was requested.

The latest assessment of the SCI part of the Natura 2000 network shows that the designation is complete.

Figure 6: EU-27 marine & terrestrial protected area coverage, 2021[20]



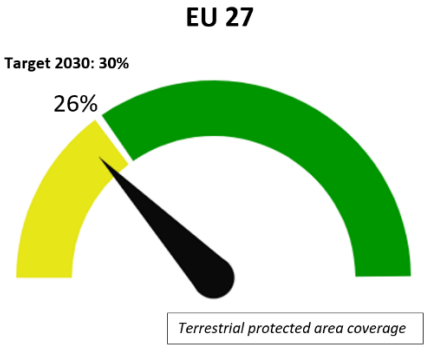
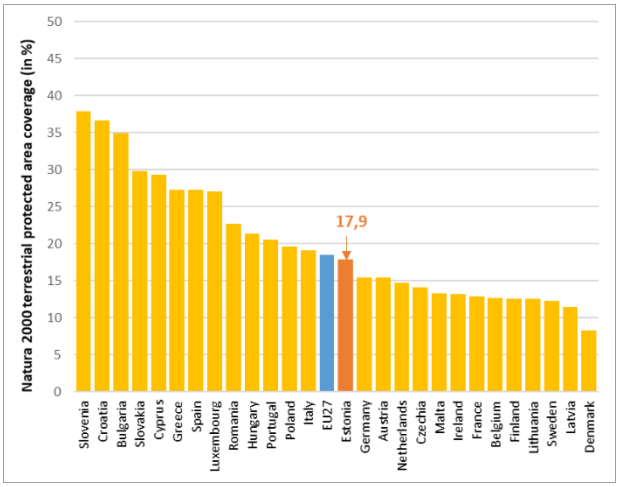


Figure 7: Natura 2000 terrestrial protected area coverage, 2021[21]



Designating SACs and setting conservation objectives and measures

The six year deadline set by the Habitats Directive to designate SCIs as SACs and establish appropriate conservation objectives and measures been met, as Estonia has designated all SCIs as SACs.

The Commission is concerned that the quality of the objectives and measures set is only partially in line with legal requirements and it will further investigate the matter.

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

To measure the performance of Member States, Article 17 of the Habitats Directive and Article 12 of the Birds Directive require reporting on the progress made towards maintaining or restoring the favourable conservation status of species and habitats.

The results of Habitats Directive Article 17 and Birds Directive Article 12 reports on progress towards maintaining or restoring favourable conservation status of species and habitats are key to measure the performance of Member States.

According to the report submitted by Estonia on the conservation status of habitats and species covered by just Article 17 of the Habitats Directive for the period 2013-2018, the share of assessments for habitats in good conservation status in 2018 is 5% more than the 51.67% reported under the previous reporting period (2007-2012)[22].

As for protected species, the share of assessments in good conservation status in 2018 is 56.67%, which is 2.71% more than the 53.54% reported under the previous reporting period (2007-2012)[23]. Of the 27% of EU forest area protected under the EU nature directives, only 20% of Estonian habitats show a favourable conservation status[24]. As far as birds are concerned, 60% of the breeding species showed short-term increasing or stable population trends (for wintering species this figure was 85.72%).

At the same time, the share of habitats in bad or poor conservation status has decreased to 44% (from 48% in the previous reporting period) and the share of assessments for species in bad or poor conservation status has slightly increased to 36% (from 35% in the previous reporting period). The main pressures for habitats (in descending order) are agriculture, natural processes and forestry. The main pressures for species (in descending order) are forestry, agriculture and human-induced changes in water regimes.

[20] EU Biodiversity Strategy Dashboard, indicators A1.1.1 and A1.2.1, February 2022.
[21] European Environment Agency, Natura 2000 Barometer, February 2022.
[22] However, 26.7% of these changes were due to changes of methods or due to better data and only 6.7% reflect genuine changes.
[23] 16.67% genuine changes
[24] State of Nature Report. EEA 2021.

Figure 8: Assessments on conservation status for habitats for 2007-2012 and 2013-2018 reporting periods[25]

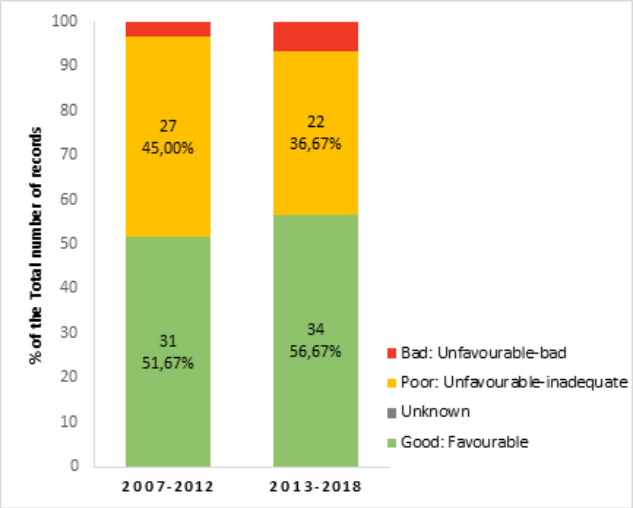
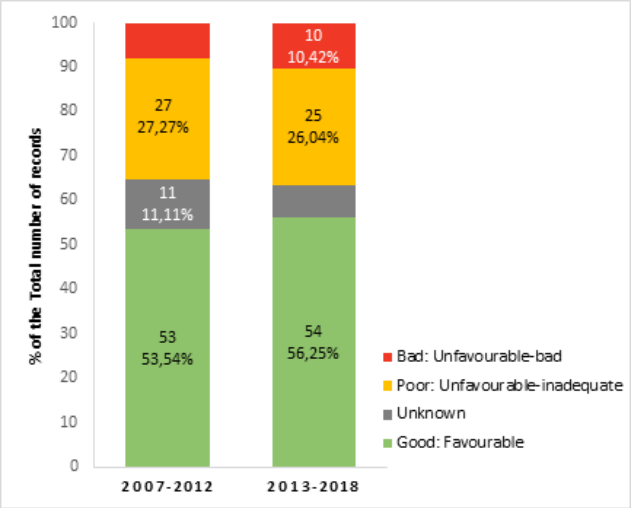


Figure 9: Assessments on conservation status for species for 2007-2012 and 2013-2018 reporting periods[26]



While the overall share of habitats and species in good conservation status has slightly increased in Estonia, the majority of mire, forest and semi-natural grassland habitats remain in an unfavourable status.

In June 2021, the Commission initiated an infringement procedure which raises concerns about the incorrect transposition and bad application of the Habitats Directive and the SEA Directive, in particular with regard to appropriate assessment procedure concerning logging activities in Natura 2000 areas

As an example of a good practice, Estonia included restoration of 10 000 ha of mire habitats by 2020 in tuts nature conservation development plan. This was implemented by the action plan for protected mires. The restoration programme has been carried out with different funding sources,the most prominent being the EU Cohesion Fund and LIFE project "Conservation and Restoration of Mire Habitats" [27]. The programme helped to halt the degradation of wetlands affected by drainage and restored some former peat extraction sites.

Bringing nature back to agricultural land and restoring soil ecosystems

Agricultural land

The Biodiversity Strategy works in tandem with the new Farm to Fork Strategy and the new Common Agricultural Policy (CAP) to support and achieve the transition to fully sustainable agriculture.
The Biodiversity and Farm to Fork strategies have set four important targets for 2030:
- 50% reduction of the overall use of – and risk from – chemical pesticides,
- 50% reduction of the use of more hazardous pesticides,
- 50% reduction of losses of nutrients from fertilisers while ensuring there is no deterioration of soil fertility (which will result in 20% the reduction of the use of fertilisers),
- bring back at least 10% of agricultural area under high-diversity landscape features and increasing areas under organic farming to at least 25%.

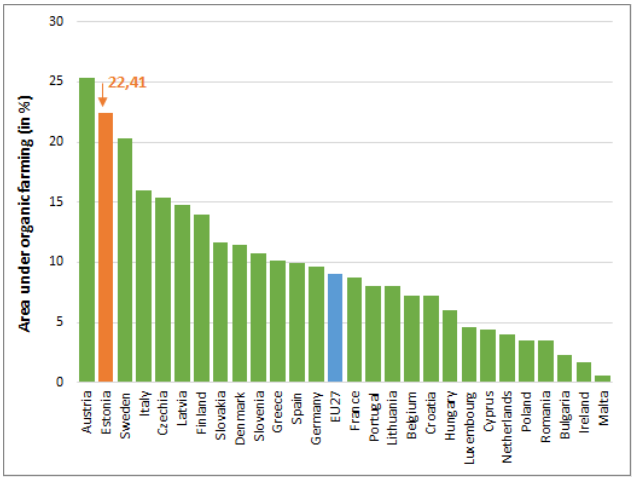
As shown in the Figure 10, Estonia, with an estimated 22.41% of it surface area under organic farming is among the EU leaders - second only to Austria - and far above the EU average of 9.07% (2020 data, Eurostat). This is not far from the EU 2030 target of 25%.

[25] European Environment Agency, Conservation status and trends of habitats and species, December 2021. Please note when comparing the figures shown for 2007-2012 and 2013-2018 that these may also be affected by changes of methods or due to better data availability.

[26] *Idem.*

[27] LIFE Mires Estonia; project no: LIFE14 NAT/EE/000126)

Figure 10: Share of total utilised agricultural area occupied by organic farming per Member State, 2020[28]



Estonia's utilised agricultural area amounts to 1 Mha, representing 23% of the total land area[29]. As described in the Commission analysis of Estonia's CAP strategic plan[30], an above-average proportion of Estonia's farmland is considered to be intensive and steps to improve nutrient management are important.

The Farmland Bird Index was at 59 in 2019 [31], having fallen sharply from a value of 102 in 2007. This is below the EU-27 average of 75. The trend has been confirmed by a marked decline in the breeding population of the skylark – a key indicator species in Estonia as in many EU countries.

As mentioned above, the conservation status of grassland habitats of EU interest affected by agriculture is deteriorating with only 8% of them in favourable status. There is concern that the presence of permanent grassland is being eroded and where grassland is still in place, noted threats include cultivation and fertilisation.

Biodiversity and ecosystems could benefit from improvements to overall CAP support for the management of semi-natural grasslands, and from efforts to re-introduce landscape features in areas where they have been lost.

Soil ecosystem

Soil is a finite and extremely fragile resource. It is increasingly degrading in the EU.
The new EU soil strategy, adopted on 17 November 2021, stresses the importance of soil protection, of sustainable soil management and of restoring degraded soils to achieve the Green Deal objectives as well as land-degradation neutrality by 2030. This entails:
(i) preventing further soil degradation;
(ii) making sustainable soil management the new normal;
(iii) taking action for ecosystem restoration.

One factor in the degradation of soil ecosystems is the area of soil that is sealed or artificialised [32]. Despite a reduction in the last decade (land take was over 1 000 km²/year in the EU-28 between 2000 and 2006), land take in the EU-28 still amounted to 539km²/year in 2012-2018[33]. The concept of 'net land take' combines land take with the return of land to non-artificial land categories (re-cultivation). While some land was re-cultivated in the EU-28 in 2000-2018, 11 times more land was taken than returned.

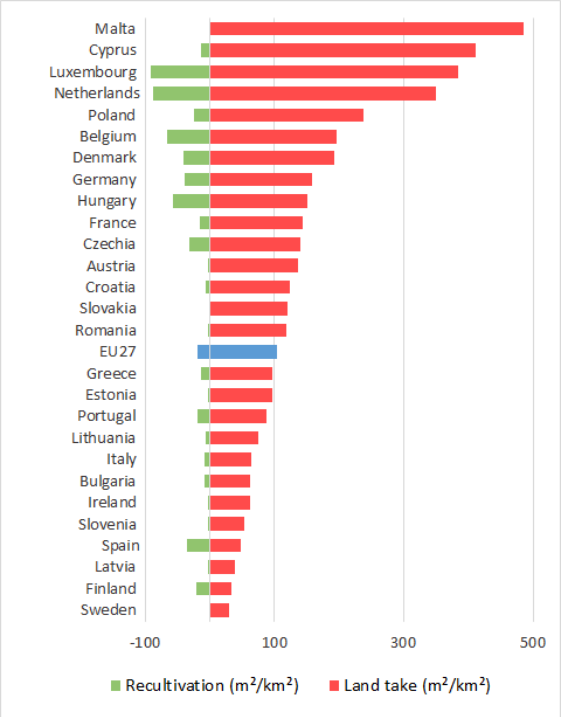
In Estonia (Figure 11) the land taken per year in the period 2012-2018 can be seen as a measure of an important pressure on nature and biodiversity, land use change, which as the same time constitutes an environmental pressure on people living in urbanised areas.

Estonia ranks slightly above the EU average as regards net land take with 93.7 m²/km² (EU-27 average: 83.8 m²/km²) [34].

In 2018, Estonia updated its reporting on land degradation according to the new 'Performance Review and Implementation System (PRAIS30 reporting platform[35] with actions intended to achieve the degradation identified.

[28] https://ec.europa.eu/eurostat/databrowser/view/sdg_02_40/default/table?lang=en (Eurostat, Area under organic farming, February 2022).
[29] SWD(2021) 1001
[30] SWD/2020/375
[31] EUROSTAT [env_bio2]
[32] Artificial 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).
[33] European Environment Agency Land take in Europe, fig. 6
[34] Idem.
[35] United Nations Convention to Combat Desertifcation, Prais3

Figure 11: Land take and re-cultivation in EU27 (m^2/km^2), 2012-2018[36]



However, Estonia has not yet committed to set Land Degradation Neutrality targets under the United Nations Convention to combat Desertification (UNCCD).[37]

As already stated in the EIR 2019, 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.

Forests and timber

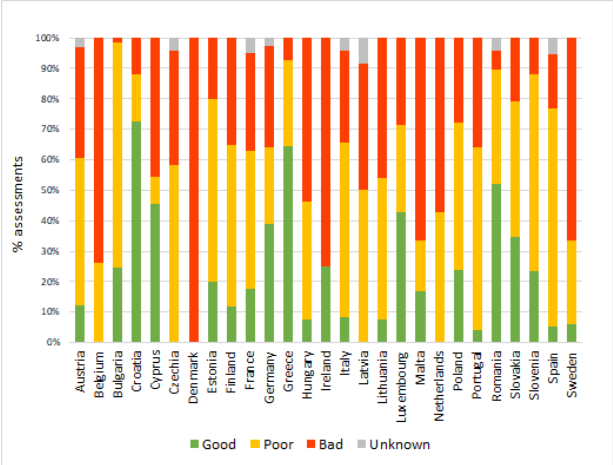
The EU forest strategy for 2030, adopted in July 2021, is part of the 'Fit for 55' package. The strategy promotes the many services that forests provide. Its key objective is to ensure healthy, diverse and resilient EU forests that contribute significantly to the strengthened biodiversity and climate ambitions. Forests are important carbon sinks, and conserving them is vital if the EU is to achieve climate neutrality by 2050.

Out of the 27% of the EU forest area protected under the Habitats Directive, less than 15% of assessments show a favorable conservation status[38]. In 2018, bad conservation status increased from 27% to 31% in the EU compared to 2015.

In Estonia, forests cover 58.44% of the territory[39] and 52 000 ha are covered by primary forests [40]. More than 75% of the assessments of EU-protected forest habitats reveal a bad to poor status[41].

The National Forest Programme post-2020 is under development and will be finalised by the end of 2022.

Figure 12: Conservation status of forests protected under the Habitats Directive in EU Member States, 2013-2018 (% assessments)[42]



The European Union Timber Regulation (EUTR)[43], prohibits the placing on the EU market of illegally harvested timber. In accordance with the EUTR, EU Member States' competent authorities must conduct regular checks on operators and traders, and apply penalties for non-compliance. With the amendment of Article 20 of the EUTR, reporting every 2 years has been changed to annual reporting, and covers the calendar year as of 2019.

In the period March 2017 - February 2019[44], Estonia carried out 825 checks on domestic timber operators. It also carried out five checks on operators importing timber. It is estimated that Estonia had 10 000 operators placing domestic and 450 operators placing imported timber types on the single market over the reporting period.

[36] European Environment Agency,https://www.eea.europa.eu/data-and-maps/indicators/land-take-3/assessment
[37] United Nations Convention to Combat Desertification, The LDN Target Setting Programme
[38] European Environment Agency, State of Nature in the EU
[39] European Environment Agency, Forest information system for Europe.
[40] European Commission, JRC, Mapping and assessment of primary and old-growth forests in Europe, p. 13.
[41] SWD (2021) 652
[42] European Environment Agency, Conservation status and trend in conservation status by habitat group - forests, January 2022.
[43] Regulation (EU) No 995/2010 .
[44] COM(2020) 629

The new Deforestation Regulation[45] will repeal and replace the EUTR, as it will essentially integrate and improve the existing system to check the legality of timber.

Invasive alien species (IAS)

IAS are a key cause of biodiversity loss in the EU (alongside changes in land and sea use, overexploitation, climate change and pollution). Besides inflicting major damage on nature and the economy, many IAS also facilitate the outbreak and spread of infectious diseases, posing a threat to humans and wildlife. The implementation of the EU Invasive Alien Species Regulation and other relevant legislation must be stepped up. The biodiversity strategy for 2030 aims to manage recognised IAS and decrease the number of 'red list' species they threaten by 50%.

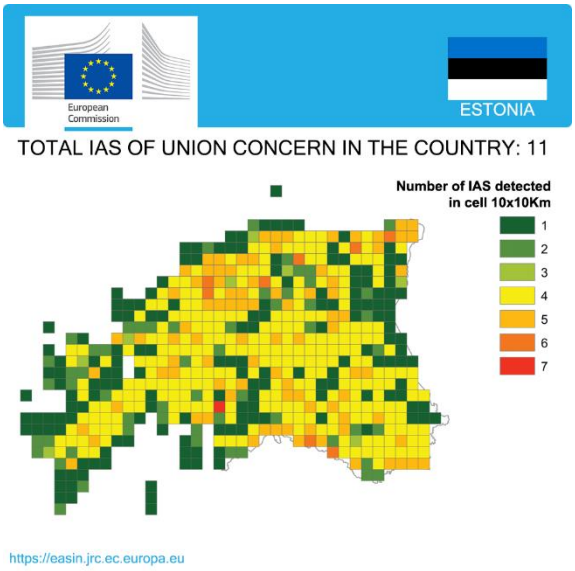
The core of the Regulation on IAS[46] (the IAS Regulation) is the list of IAS of Union concern.

The total number of IAS of Union concern is currently 66, of which: 30 are animal species and 36 are plant species; 41 are primarily terrestrial species, 23 are primarily freshwater species, 1 is a brackish-water species and 1 is a marine species.

According to a 2021 report[47] on the review of the application of the IAS Regulation, the implementation of the IAS Regulation is already starting to deliver on its objectives such as a coherent framework for addressing IAS at EU level and increased awareness of the problem of IAS. At the same time, the above report identified some challenges and areas for improvement. Given that the deadlines for implementing the various obligations of the IAS Regulation applied gradually between July 2016 and July 2019, it is premature to draw conclusions on several aspects of the implementation of the IAS Regulation.

A 2021 report[48] on the baseline distribution shows that of the 66 species on the Union list, 11 have been observed in the environment in Estonia. The spread can be checked in Figure 13.

Figure 13: Number of IAS of EU concern, based on available georeferenced information for Estonia, 2021



2022 priority actions

- Ensure sustainable management of forests, i.a. by adopting the National Forest Programme post-2020.
- Establish site-specific, legally compliant conservation objectives and measures for all SACs.
- To consider the conservation objectives of forest habitats when developing the National Forestry Strategy post-2020.
- To take the necessary measures to ensure that favourable conservation status of the relevant species and habitats is also achieved in privately owned forests.
- To take into consideration the possible impacts of drainage infrastructure on the conservation objectives of protected habitats and species and take any necessary measures to rectify them and not to incentivise them through the CAP.
- To intensify efforts in order to improve management of 60 000 ha of semi-natural grasslands by 2028.
- To improve the system of implementation of Article 6, paragraphs 2, 3 and 4 of the Habitats Directive by amending the Nature Conservation Act in order to ensure a stand alone appropriate assessment procedure. To ensure that an appropriate assessment is carried out according to the requirements of Article 6(3) of the Habitats

[45] COM (2021) 706 A proposal for the Regulation on the making available on the EU market and export of products associated with deforestation and forest degradation.
[46] Regulation (EU) No 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species
[47] Report from the Commission to the European Parliament and the Council on the review of the application of Regulation (EU) No 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species, COM(2021) 628 final, 13.10.2021.
[48] Cardoso A.C., Tsiamis K., Deriu I., D' Amico F., Gervasini E., EU Regulation 1143/2014: assessment of invasive alien species of Union concern distribution, Member States reports vs JRC baselines, EUR 30689 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-37420-6, doi:10.2760/11150, JRC123170.

Directive before granting/renewing permits for forest logging (forest notifications).

Marine ecosystems

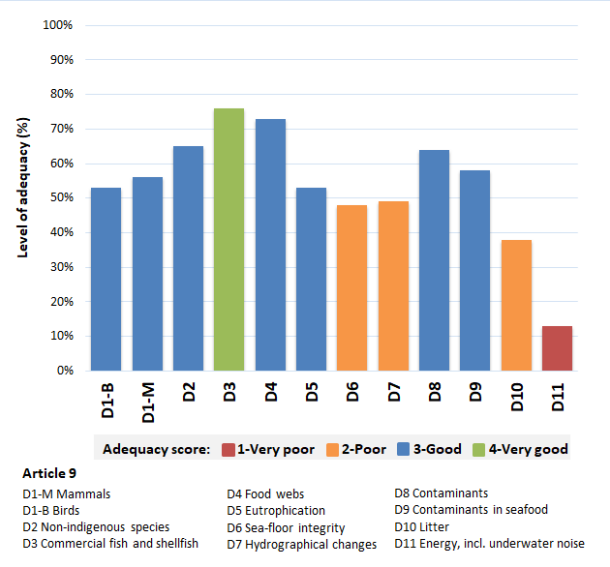
The EU Biodiversity Strategy 2030 aims to substantially reduce the negative impacts on sensitive species and habitats in marine ecosystems and to achieve good environmental status as well as eliminate or reduce the incidental catches of protected, endangered, threatened and sensitive species to a level that allows species recovery and conservation[49].

The Marine Strategy Framework Directive (MSFD) requires Member States to achieve good environmental status (GES) of their marine waters. To that end, Member States have to develop marine strategies for their marine waters, and cooperate with Member States sharing the same marine region or subregion. These marine strategies comprise different steps to be developed and implemented over six-year cycles.

Among other obligations, the MSFD requires Member States by 15 October 2018 to define a set of GES characteristics for each descriptor (article 9), and to provide an initial assessment of their marine waters (article 8). The Commission then assesses whether this constitutes an appropriate framework to meet the requirements of the Directive.

The Commission assessed Estonia's 2018 determinations of GES for each MSFD's 11 descriptors[50] and determined their level of adequacy in relation to the Commission Decision on criteria and methodological standards on GESof marine waters[51]. A good or very good score indicates that the national determinations of GES are well aligned with the requirements of the Commission GES Decision, providing qualitative and quantitative national environmental objectives to be achieved for their marine waters.

Figure 14: Level of adequacy of GES determination by Estonia (BAL region) with criteria set under the Commission GES Decision - Article 9 (2018 reporting exercise)[52]



Estonia has one marine sub-region, BAL-Baltic Sea.

In this marine sub-region, seven out of 11 determinations of GES were assessed as good or very good. The national determination of GES by Estonia is consistent for seven out of 11 descriptors.

The MSFD also requires that Member States make an assessment of the current environmental status of their marine waters in relation to the determination of GES. A good or very good score indicates the Member State has good capabilities for assessing its marine environment in accordance with the requirements set out in the Commission GES Decision.

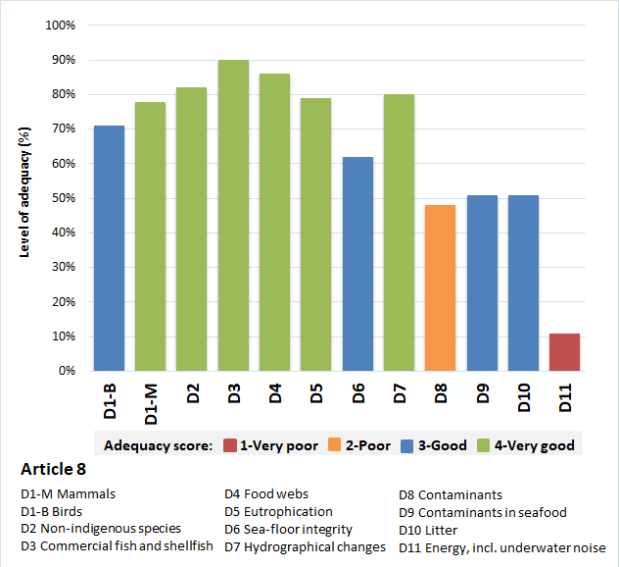
[49] The EU Common Fisheries Policy (CFP) aims to contribute to the achievement of the objectives of the environmental legislation for marine ecosystems.

[50] Annex I of Directive 2008/56/EC establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive), OJ L 164, 25.6.2008, p. 19–40.

[51] This assessment was made in relation to the "Commission GES Decision", Commission Decision No 2017/848, pp. 43-74.

[52] Assessment carried out by the European Commission of the data reported by the MS, January 2022. Please note that only two sub-sections of descriptor D1 are displayed (D1-M Mammals and D1-B Birds). For the analysis, these two sub-sections were considered as a whole after averaging them.

Figure 15: Level of adequacy of initial assessment of Estonia's marine environment (BAL region) with criteria set under the Commission GES Decision - Article8 (2018 reporting exercise) [53]



9 descriptors out of 11 scored as good or very good. Estonia's assessment of its marine environment is consistent with the requirements set under the Commission GES Decision for nine out of 11 descriptors.

As highlighted in the Commission's report on the implementation of the MSFD[54], while regional cooperation has improved since the adoption of the MSFD, more cooperation is needed to attain full regional coherence of the marine strategies, as required by the Directive.

Furthermore, in March 2022, the European Commission published a Communication[55] with recommendations for Member States. The Commission assessment highlights that Member States need to step up their efforts to determine the good environmental status and the use of the criteria and methodological standards according to the Commission GES Decision. The above considerations form the basis for the 2022 priority actions.

2022 priority actions

- Ensure regional cooperation with Member States sharing the same marine (sub) region to address predominant pressures.
- Implement the recommendations made by the Commission in the Staff Working Document[56] accompanying the Communication[57] on recommendations per Member States and region on the 2018 updated reports for Articles 8, 9 and 10 of the MSFD.

Ecosystem assessment and accounting

The EU biodiversity strategy for 2030 calls on Member States to better integrate biodiversity considerations into public and business decision making at all levels and to develop natural capital accounting. The EU needs a better performing biodiversity observation network and more consistent reporting on the condition of ecosystems.

An ecosystem assessment is an analysis of the pressures on – and the condition of – terrestrial, freshwater and marine ecosystems and their services. It uses spatially explicit data and a comparable methodology based on European data about the functions of ecosystem assets and the ecosystem services they produce.

Ecosystem accounting is built on five core accounts (ecosystem extent, ecosystem condition, physical ecosystem services, monetary ecosystem services and monetary ecosystem assets). These accounts are compiled using indicators of ecosystem assets and the ecosystem services they produce.

In 2020, countrywide biophysical mapping and assessment of ecosystem services (MAES) of the main terrestrial ecosystems (>99% of the area of the mainland natural ecosystems) was completed in the course of the national MAES project ELME (Establishment of tools for integrating socioeconomic and climate change data into assessing and forecasting biodiversity status, and ensuring data availability) co-funded by the European Union Cohesion Fund and the national foundation Environmental Investment Centre. As an outcome, maps of the extent, condition of ecosystems and ecosystem services were made publicly available and are being implemented in practice (e.g. in spatial planning). In 2021–2023, countrywide socioeconomic mapping and assessment of terrestrial ecosystem services is conducted under the ELME project. Maps of selected marine ecosystem services created in the ELME project in 2019 are integrated into the maritime spatial planning process.

LIFE IP CleanEst project[58] (2019–2028) is developing and implementing methodology for MAES of freshwater

[53] Assessment carried out by the European Commission of the data reported by the MS, January 2022. Please note that only two sub-sections of descriptor D1 are displayed (D1-M Mammals and D1-B Birds). For the analysis, these two sub-sections were considered as a whole after averaging them.

[54] COM(2020) 259

55 COM(2022)550.

[56] SWD(2022)1392.

[57] COM(2022)550.

[58] LIFE project number LIFE17 IPE/EE/000007

ecosystems, initially at regional level (in northeastern Estonia), with potential perspective to upscale to a countrywide level. The initial assessments were completed in 2021.

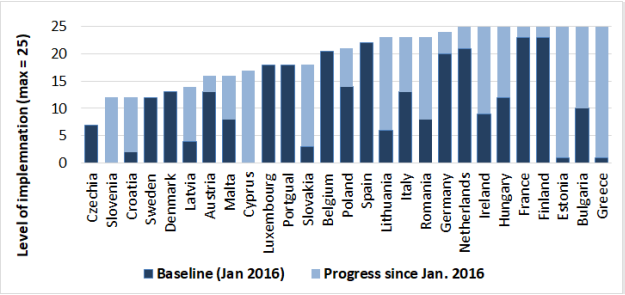
Eurostat has provided three grants for piloting ecosystem accounts in Estonia. The first results were published in 2019, the latest project lasts from 2021–2023.

As Figure 15 shows significant progress has been recorded regarding national MAES actions since January 2016 (this assessment is based on 27 implementation questions and updated every six months).

Although there are a multitude of open-source large-scale data sets covering Estonia, compiling those in the countrywide mapping exercise has been challenging.

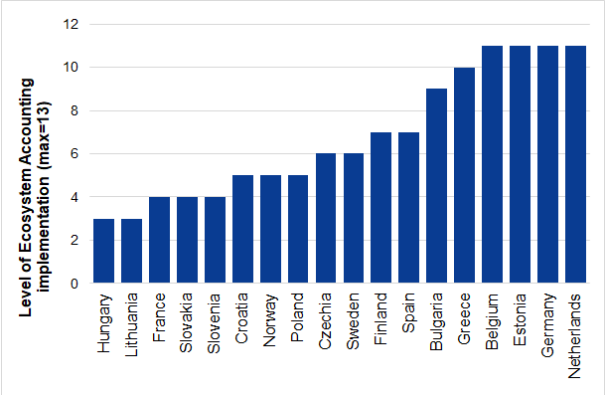
Creating one whole national natural capital accounting system will be the joint effort of different MAES and accounting projects, governmental institutions, scientists and NGOs in the coming years. Uptake of the results by decision makers and other users will be crucial.

Figure 16: ESMERALDA MAES Barometer (January 2016 - March 2021)[59]



Progress on ecosystem accounting implementation is assessed on a national scale based on 13 questions (see Figure 17).

Figure 17: Ecosystem accounting Barometer[60]



2022 priority action

- Continue supporting the mapping and assessment of ecosystems and their services, and ecosystem accounting development, through appropriate indicators for integrating ecosystem extent, condition and services (including some monetary values) into national accounts; continue supporting the development of national business and biodiversity platforms, including natural capital accounting systems to monitor and value the impact of business on biodiversity.

[59] European Commission, Joint Research Centre, Publication Office, EU Ecosystem assessment: summary for policymakers, p. 80, May 2021.

[60] MAIA Portal, Mapping and assessment for Integrated Ecosystem Accounting (EU Horizon 2020 project), 2022. MAIA uses the System of Environmental Economic Accounting – Experimental Ecosystem Accounting (SEEA-EEA) as the methodological basis for the ecosystem accounting. The SEEA EA is an integrated an comprehensive statistical framework that is based on five core accounts: ecosystem extent, condition, services and monetary ecosystem asset.

3. Zero Pollution

Clean air

EU clean air policies and legislation need to significantly improve air quality in the EU, moving the EU closer to the quality recommended by the WHO and curbing emissions of key air pollutants. Air pollution and its impacts on 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 clean-air legislation and defining strategic targets and actions for 2030 and beyond. The 2030 zero-pollution action-plan targets are to reduce the health impacts of air pollution by 55% and to reduce the EU ecosystems threatened by air pollution by 25%, compared to 2005.

The EU has developed a comprehensive suite of air quality legislation, which establishes health-based air quality standards[61]and emission reduction commitments[62] per Member State for several air pollutants.

Air quality in Estonia is generally good with exceptions. The latest available annual estimates (for 2019) by the European Environment Agency[63] point to about 500 premature deaths (or 5 600 years of life lost (YLL)) attributable to fine particulate matter concentrations[64], and 30 premature deaths (400 YLL) to ozone concentration[6566].

The emissions of key air pollutants have decreased significantly in Estonia over the last years, while GDP growth continued (see graph). According to the latest projections required under Article 10(2) of the National Emission reduction Commitments Directive (NECD)[67]. Estonia is forecast to reach emission reduction commitments for all air pollutants covered by the Directive for the period 2020 to 2029 and for 2030 onwards. The llatest inventory data submitted by Estonia, prior to review by the Commission, indicate that Estonia is in compliance with the emission reduction commitments for all pollutants in 2020.

Estonia submitted its National Air Pollution Control Programme on 29 March 2019.

Figure 18: Emission trends of main pollutants/ GDP in Estonia, 2005-2019[68]

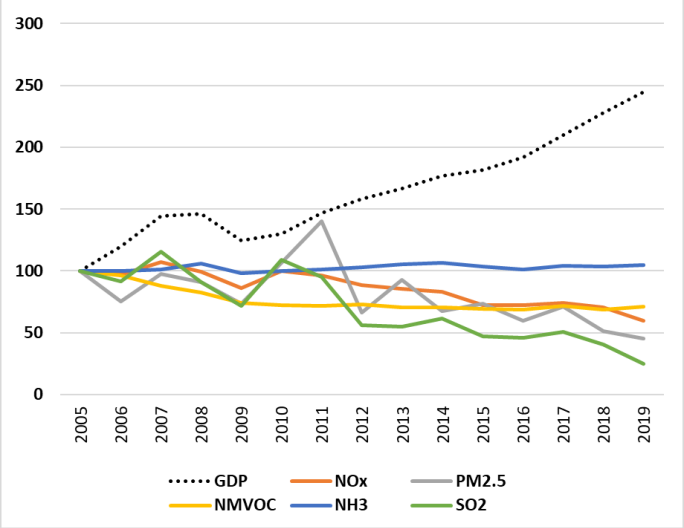
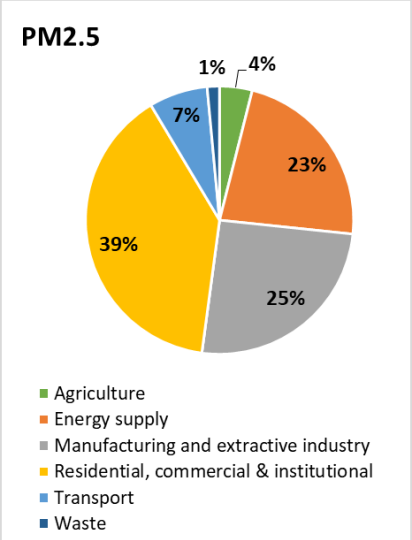
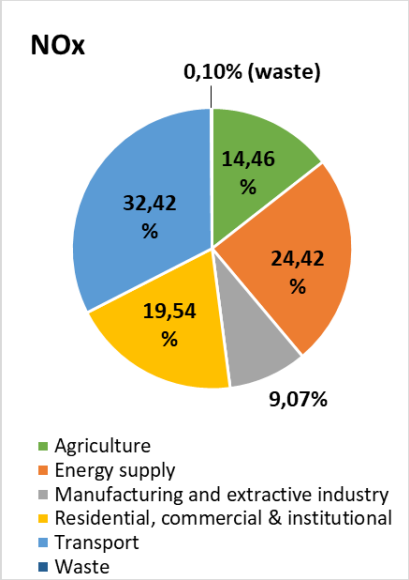


Figure 19: PM2.5 and NOx emissions by sector in Estonia, 2019[69]



[61]European Commission, 2016. Air Quality Standards.
[62] European Commission, Reduction of National Emissions
[63] European Environment Agency, Air Quality in Europe –2021 Rapport. Please see details in this report as regards the underpinning methodology, p.106
[64] 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 human sources, including combustion.
[65] Low-level ozone is produced by photochemical action on pollution.
[66] Please note that these figures refer to the impacts of individual pollutants; to avoid double-counting they cannot be summed up.
[67] Directive 2016/2284/EU.
[68] European Environment Agency.
[69] European Environment Agency.



For the year 2020, no exceedances above the limit values established by the Ambient Air Quality Directive (AAQD) were registered[70].

In 2019 Estonia received a priority action with regard to the National Air Pollution Control Programme (NAPCP). It is maintained given the need to ensure continued and full implementation.

2022 Priority actions

- Take, in the context of the NAPCP, actions towards reducing emissions from the main sources mentioned above.
- Ensure full compliance with the EU air quality standards and maintain downward emissions trends of air pollutants, to reduce adverse air pollution impacts on health and economy, with a view to reach WHO guideline values in the future.

Industrial emissions

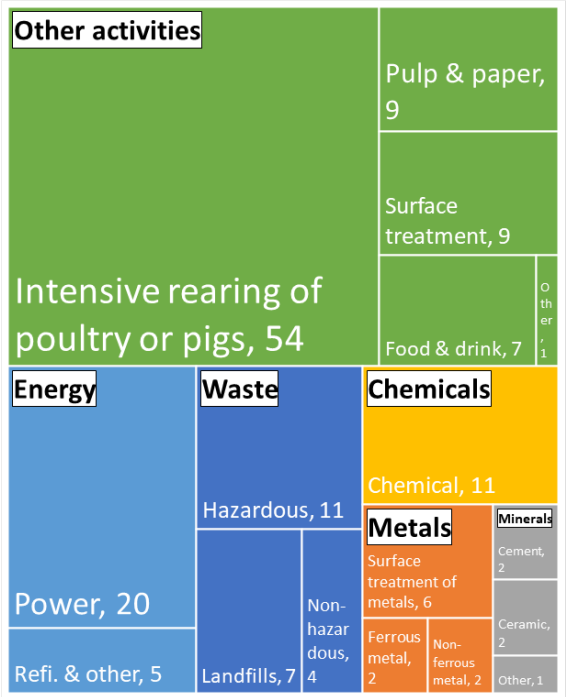
The main objectives of EU policy on industrial emissions are to:
(i) protect air, water and soil;
(ii) prevent and manage waste;
(iii) improve energy and resource efficiency;
(iv) clean up contaminated sites.
To achieve this, the EU takes an integrated approach to prevention and control of routine and accidental industrial emissions. The cornerstone of the policy is the Industrial Emissions Directive[71] (IED). As announced in the European Green Deal, the Commission undertook an impact assessment for the revision of the IED in 2021 with a view to tabling a proposal in 2022[72]. The revision seeks to enhance the directive's contribution to the zero pollution objective, as well as its consistency with climate, energy and circular economy policies.

The below overview of industrial activities regulated by IED is based on data reported to the EU Registry (2018)[73].

In Estonia, around 150 industrial installations are required to have a permit based on the IED. The distribution of installations is shown in the figure below.

The industrial sectors in Estonia with the most IED installations in 2018 are the intensive rearing of poultry and pigs (35%), followed by the energy sector (16%), the waste management sector including landfills (15%), and the production of chemicals (7%).

Figure 20: Number of IED industrial installations per sector in Estonia, 2018[74]

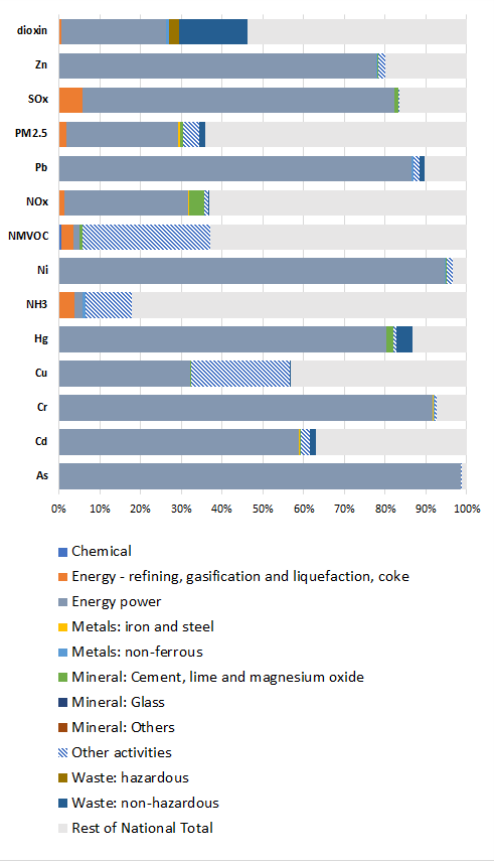


The industrial sectors identified as contributing with the largest emissions to air were the energy sector (for sulphur oxides (SO_x), nitrogen oxides (NO_x), as well as for arsenic (As), cadmium (Cd), chromium (Cr), copper (Cu), mercury

[70] European Environment Agency, Eionet Central Data Repository
[71] 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).
[72] The revision of the IED is performed in parallel to the revision of Regulation (EC) No 166/2006 on the European Pollutant Release and Transfer Register (E-PRTR).
[73] European Environment Agency, European Industrial Emissions Portal.
[74] European Environment Agency, EU Registry, European Industrial Emissions Portal (data retrieved on 3 November 2021).

(Hg), nickel (Ni), lead (Pb), zinc (Zn), particulate matter ($PM_{2.5}$) and dioxins). Other contributing activities were the intensive rearing of poultry or pigs, ammonia (NH_3) and surface treatment and pulp, paper and wood products sector. The breakdown is shown in the following graph.

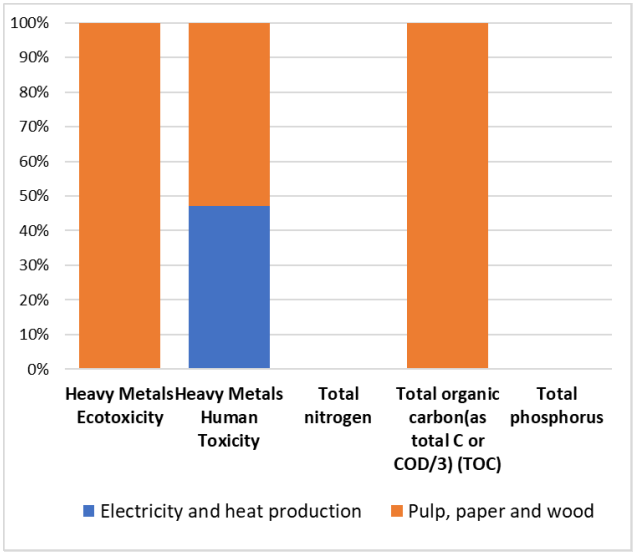
Figure 21: Emissions to air from IED sectors and rest of national total air emissions in Estonia, 2018[75]



In 2017, Estonia was the Member State with the highest damage costs aggregated over all pollutant groups normalised against GDP76, principally due to emissions from the energy sector, notably oil shale burning.

The environmental burdens for industrial emissions to water mainly result from the pulp, paper and wood sector as well as from the energy sector for heavy metals and total organic carbon. The breakdown, based on E-PRTR data, is presented in the figure below.

Figure 22: Relative releases to water from industry in Estonia, 2018[77]



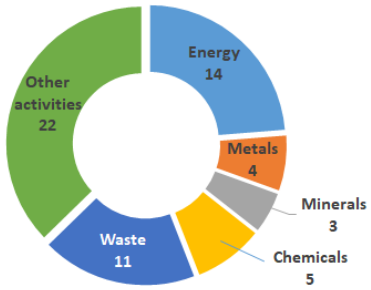
The EU approach to enforcement under the IED creates strong rights forenables the public to have access to relevant information and to participate in the permitting process for potentially polluting installations. This empowers the public and NGOs to ensure that permits are appropriately granted and that the conditions of these permits are complied with. As part of environmental inspection, competent authorities undertake site visits at IED installations to take samples and to gather necessary information. According to Article 23(4) of the IED, site visits must be carried out between once a year and once every 3 years, depending on the environmental risks posed by the installations. In 2018, Estonia undertook 59 site visits, the majority of which were to the intensive rearing of poultry and pigs (25%), followed by the energy sector (24%) and waste management sector, including landfills (19%).

[75] European Environment Agency, LRTAP, Air pollutant emissions data viewer (Gothenburg Protocol, LRTAP Convention) 1990-2019 (data retrieved on 3 November 2021).

[76] ETC/ATNI Report 04/2020: Costs of air pollution from European industrial facilities 2008–2017

[77] European Commission, European Environment Agency, E-PRTR, European Industrial Emissions Portal. The heavy metals are presented both as a weighted sum of eco toxicity and human toxicity factors to illustrate both the ecological and human impact (based on USEtox) (data retrieved on 3 November 2021).

Figure 23: Number of inspections in IED installations in Estonia in 2018[78]



The development of best-available-technique (BAT) reference documents (BREFs) and BAT conclusions ensures good collaboration between stakeholders and enables better implementation of the IED79. Since the last EIR report, the Commission adopted BAT conclusions for Estonia for: (i) waste incineration; (ii) the food, drink and dairy industries; and (iii) surface treatment using organic solvents including the preservation of wood and wood-products with chemicals.

The Commission relies on the efforts of national competent authorities to implement the legally binding BAT conclusions and associated BAT emission levels in environmental permits. This should result in considerable and continuous reductions in pollution. In 2019, Estonia received priority actions to review permits to comply with newly adopted BAT conclusions and to strengthen control and enforcement to ensure compliance with BAT conclusions. These actions have been followed up by the Commission through the reporting by Estonia to the EU Registry. No non-compliant permits were reported in 2018. Estonia also received a priority action to address water and air pollution from the power sector and intensive rearing of poultry or pigs. The Commission follows up the latter aspect via the implementaton of the BAT conclusions for intensive rearing of poultry or pigs, which were to be reflected in permits by February 2021. As mentioned above, emissions from the energy sector needs to be addressed by the implementation of the BAT conclusions on large combustion plants by August 2021.

2022 priority action

- Continue addressing the emissions to air from the energy sector and the intensive rearing of poultry and pigs.

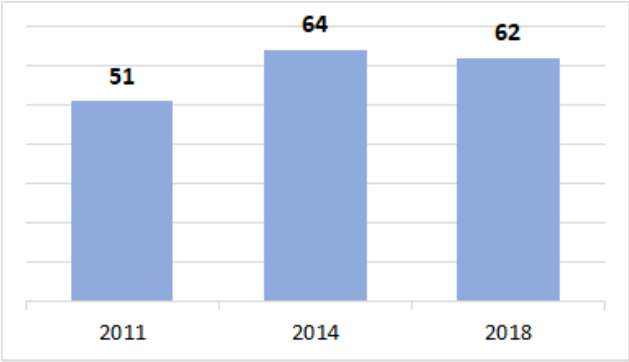
Major industrial accidents prevention – SEVESO

The main objectives of EU policy on the prevention of major industrial accidents are to:
(i) control major accident hazards involving dangerous substances, especially chemicals;
(ii) limit the consequences of such accidents for human health and the environment;
(iii) continuously improve prevention, preparedness and response to major accidents.
The cornerstone of the policy is Directive 2012/18/EU (the Seveso-III Directive)
[80].

The below overview of industrial plants regulated by Seveso-III Directive, ('Seveso establishments'), is based on data reported to the eSPIRS database (2018)[81] and the Estonia report on the implementation of the Seveso-III Directive for the period 2015-2018[82].

In Estonia, among the 62 Seveso establishments, 31 are categorised as lower-tier establishments (LTE) and 31 as upper-tier establishments (UTE) – based on the quantity of hazardous substances likely to be present. The UTE are subject to more stringent requirements. The development of the number of Seveso establishments is presented in Figure 24.

Figure 24: Number of Seveso establishments in Estonia, 2011, 2014 and 2018[83]



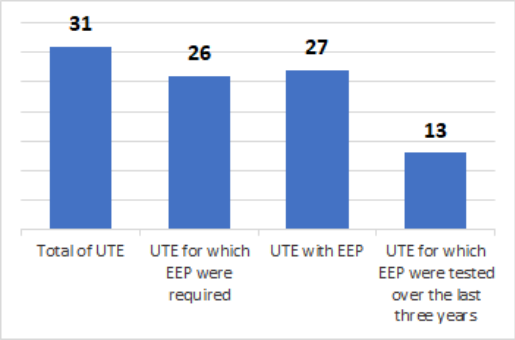
Many Seveso establishments are required to draw up external emergency plans (EEPs). These EEPs are essential to allow proper preparation and effective implementation of the necessary actions to protect the environment and

[78] EU Registry (data retrieved on 3 November 2021).
[79] European Commission BAT reference documents.
[80] Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances.
[81] European Commission, Seveso Plants Information Retrieval System.
[82] As provided for by Article 21(2) of the Seveso-III Directive.
[83] European Commission, Assessment and summary of Member States' implementation reports for Implementing Decision 2014/896/EU (implementing Directive 2012/18/EU on the control of major accident hazards involving dangerous substances), 2022.

the population should a major industrial accident occur at them.

According to Estonia, the EEP is required for 26 UTE. In 2018, 27 UTE had an EEP and 13 of these EEP had been tested over the last three years. The summary is shown in Figure 25. The establishment of EEPs is essential to allow proper preparation and effective implementation of the necessary actions to protect the environment and the population should a major industrial accident nevertheless happen.

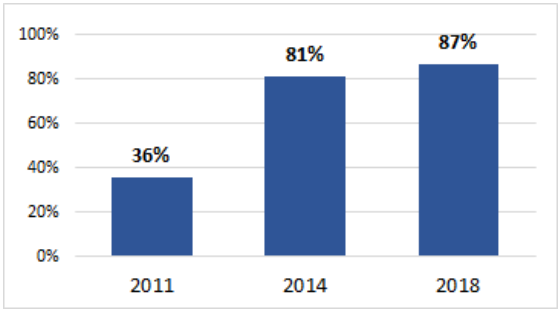
Figure 25: Situation regarding EEP in Estonia, 2018[84]



The information to the public referred to in Annex V of the Seveso-III Directive – especially about how the public concerned will be warned in the event of a major accident; the appropriate behaviour in the event of a major accident; and the date of the last site visit – are permanently available for 84% of the Seveso establishments in Estonia.

The share of UTE for which information on safety measures and requisite behaviours were actively made available to the public over the last years are presented in Figure 26. This is an important provision of the Seveso-III Directive as public awarness of this information may reduce the consequences of a major industrial accident.

Figure 26: Share of UTE for which information on safety measures and requisite behaviours were actively made available to the public in Estonia, 2011, 2014 and 2018[85]



Estonia has some issues related to transposition of the Seveso III Directive which are the subject og the infringement case. Estonia has incorrectly transposed everal provisions of the Directive, ranging from time limits for supplying information to key definitions.

2022 priority action

- Strengthen control and enforcement to ensure compliance with Seveso-III provisions, especially on information to the public and EEP.

Noise

The Environmental Noise Directive[86] provides for a common approach to avoid, prevent and reduce the harmful effects of exposure to environmental noise, although it does not set noise limits as such. The main instruments it uses in this respect are strategic noise mapping and planning. A relevant 2030 zero pollution action plan target is a reduction by 30% of the share of people chronically disturbed by transport noise compared to 2017.

Excessive noise from aircraft, railways and roads is one of the main causes of environmental health-related issues in the EU. It can cause ischaemic heart disease, stroke, interrupted sleep, cognitive impairment and stress[87].

In Estonia, based on a limited set of data[88], environmental noise is estimated to cause at least around 60 premature deaths and 200 cases of ischaemic heart disease annually[89]. Moreover, some 11 000 people suffer from

[84] *Idem*.
[85] *Idem*.
[86] Directive 2002/49/EC
[87] WHO 2018, Environmental Noise Guidelines for the European Region
[88] For further information: European Environment Agency, Noise Fact Sheets 2021.
[89] These figures are an estimation by the European Environmental Agency based on : **(i)** the data reported by Member States on noise exposure covered by Directive 2002/49/EC; **(ii)** ETC/ATNI, 2021, Noise indicators under the Environmental Noise Directive 2021: Methodology for estimating missing data, ETC/ATNI Report No 2021/06, European Topic Centre on Air Pollution, Transport, Noise and Industrial Pollution; **(iii)** the methodology for health impact calculations, ETC/ACM, 2018, Implications of environmental noise on health and wellbeing in Europe, Eionet Report ETC/ACM No 2018/10, European Topic Centre on Air Pollution and Climate Change Mitigation.

disturbed sleep. In Estonia, the overall noise exposure decreased by 3% between 2012 and 2017 based on reported data. On the basis of the latest full set of information that has been analysed, noise mapping of agglomerations, roads and railways is complete.

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 .

Water Framework Directive

The Water Framework Directive (WFD)[90] is the cornerstone of EU water policy in the 21st century[91]. The WFD and other water-related directives,[92] set the framework for sustainable and integrated water management, which aims at a high level of protection of water resources, prevention of further deterioration and restoration to good status.

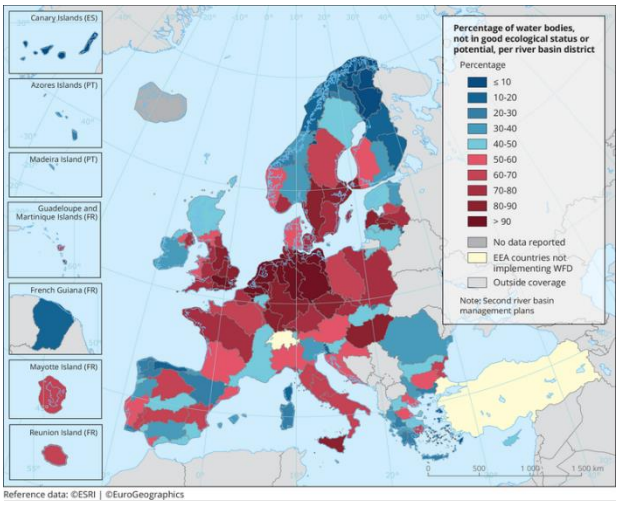
By March 2022, all Member States were requested to submit the third generation of River Basin Management Plans (RBMPs) under the WFD. Estonia has not yet adopted and reported the third[rd] RBMPs. When received, the Commission will assess the reported status and progress, checking how the findings identified in the assessment of the second RBMPs[93] have been addressed.

The Commission published in December 2021 the 6th Implementation Report, which assesses implementation of the WFD and the Floods Directive[94]. This report includes an assessment of: (i) the implementation of the programmes of measures; and (ii) the new priority substances. The assessment report for Estonia[95] showed that implementation of the measures set out in the programme of measures (PoM) have been implemented to a satisfactory level, especially for groundwater. Out ofthe existing total of 39 groundwater bodies, activities were conducted in 19 groundwater bodies, with 71% of the planned measures implemented and further 3% in process of being implemented. Out of the existing total of 750 surface water bodies, activities were conducted in 395 surface water bodies, with 56% of measures implemented and a further 10% of measures partially completed. For the remaining 34% of the surface water measures and 26% of groundwater measures, no information was available. In conclusion, the available data shows that the planned and implemented measures contribute significantly to reaching the objectives of the WFD in 2021 and 2027.

Based on the second RBMPs reporting and data published in 2020[96], in Estonia 60.1% of all surface water bodies[97] reach good ecological status (with unknown status 0.1%) and only 9.7% have good chemical status (with unknown 88.3%). For groundwaters, 20.5 % failed to achieve good chemical status and 2.6% are in poor quantitative status.

The figure below illustrates the proportion of surface water bodies in Estonia and other European countries that failed to achieve good ecological status.

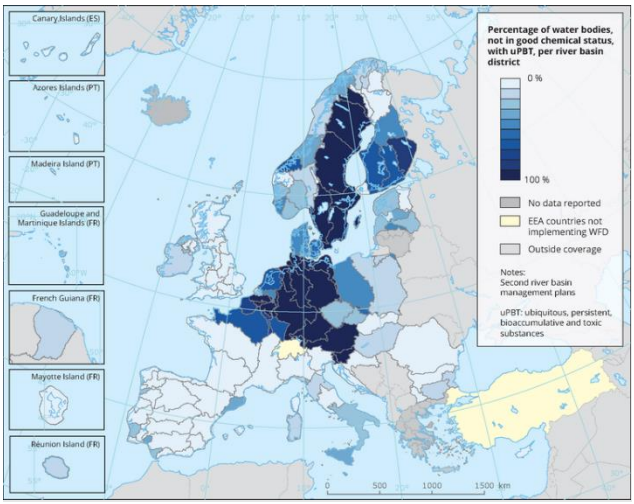
Figure 27: Proportion of surface water bodies (rivers, lakes, transitional and coastal waters) in less than good ecological status per River Basin District[98]



[90] The Water Framework Directive (2000/60/EC).
[91] The EU Water Policy.
[92] This includes the Groundwater Directive (2006/118/EC), the Environmental Quality Standards Directive (2008/105/EC), the Floods Directive (2007/60/EC), the Bathing Water Directive (2006/7/EC), the Urban Waste Water Treatment Directive (91/271/EEC), the new Drinking Water Directive (2020/2184/EC), the Nitrates Directive (91/676/EEC), the Marine Strategy Framework Directive (2008/56/EC), the Industrial Emissions Directive (2010/75/EU) and the new Regulation on minimum requirements for water reuse (2020/741).
[93] Detailed information can be found in the 5th Report from the Commission on the implementation of the Water Framework Directive and the Floods Directive, as well as in the 2019 EIR.
[94] See the 6th Implementation Report of the WFD and FD.
[95] European Commission, Directorate-General for Environment, Assessment of Member States' progress in Programmes of Measures during the second planning cycle of the Water Framework Directive. Member State: Estonia, 2022.
[96] WISE Freshwater (europa.eu)
[97] River, lake, transitional, coastal, territorial
[98] European Environment Agency, 2021.

The following figure presents the percentage of surface water bodies in Estonia and other European countries failing to achieve good chemical status. For Estonia the percentage is 2%, if water bodies failing due to substances behaving as ubiquitous PBTs (Persistent, Bio-accumulative, Toxic) are included. Without ubiquitous PBTs, 1% of surface water bodies are failing good chemical status (with unknown 88%).

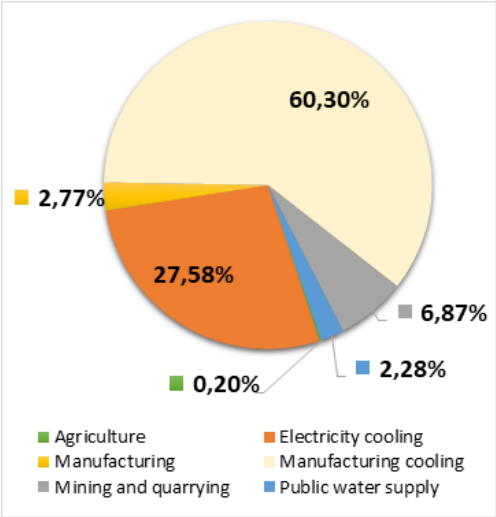
Figure 28: Percentage of surface water bodies not achieving good chemical status[99]



Under the IED framework, it should be stressed that Estonia showed a significant decrease over the last decade (15.4%) in industrial releases of heavy metals like Cd, Hg, Ni, Pb and 55.3% in TOC (Total Organic Carbon) to water[100].

The total water abstracted annually (corresponding to the 2019 baseline) in Estonia from surface and groundwater sources is 2.479.89 hm^3 (EEA, 2022). The percentage for water abstraction per sector is 0.20% for agriculture, 2.28% for public water supply, 27.58% for electricity cooling, 2.77% for manufacturing, 60.30% for manufacturing cooling and 6.87% for mining and quarrying, as illustrated in the following figure. In Estonia, water abstractions are not recorded in a separate register. Instead, the relevant data are kept in Keskkonnaregister (Environmental Registry). The registry is updated on the basis of annual self-reporting by the permit holders to the permitting authority. Small abstractions do not require permits in Estonia.

Figure 29: Water abstraction per sector in Estonia[101]



Recent data are not available for water exploitation index plus[102] in Estonia[103].

It is worth to mention that in Estonia, the Cohesion Fund project 'Restoration of habitats in Pärnu river basin', removed seven dams from the river and its tributaries between 2015 and 2021, establishing a 3 000 km network of free-flowing water. In particular, removing the Sindi dam, located close to the river mouth, made an important contribution to increasing spawning habitats (EEA, Dec 2019). According to 2021 information collected by Dam Removal Europe, the positive results of the removal of the Sindi dam seem to have included a significant improvement of the fish population and caused change in the perceptions of dam removal by being a source of inspiration for future projects in Estonia.

Floods Directive

As mentioned, the Commission published the sixth[th] implementation report in December 2021. It includes, amongst others, the review and update of the preliminary flood risk assessments during the second cycle (2016-2021).

The assessment report[104] showed that Estonia has developed a national spatial data portal that presents clear information on flood risk areas and receptors and allows the general public and other users to select and download information on a variety of scales. However, it is not clear how future floods have been assessed; a

[99] European Environment Agency, December 2019.
[100] European Environment Agency, June 2021.
[101] European Environment Agency, Water abstraction by source and economic sector in Europe, 2022.
[102] The Water Exploitation Index plus (WEI+) is a measure of total fresh water use as a percentage of the renewable fresh water resources (groundwater and surface water) at a given time and place. It quantifies how much water is abstracted and how much water is returned after use to the environment.
[103] European Environment Agency (EEA), Water Exploitation index
[104] European Commission, Directorate-General for Environment, Assessment of Second Cycle Preliminary Flood Risk Assessments and Identification of Areas of Potential Significant Flood Risk under the Floods Directive : Member State : Estonia, 2022

general statement is made that these are the same as past floods, regarding locations, area, significance and impacts. A more detailed description of the methodology applied would benefit the reliability of the assessment results. The descriptive evaluation could be more quantitative, as well.

Estonia has not yet reported on the second generation of Flood Risk Management Plans (FRMPs) under the Floods Directive. The European Commission will assess the progress since the adoption of the first FRMPs and publish a new report, asin 2019.

Drinking Water Directive

On the Drinking Water Directive[105], no new assessment of the quality of Drinking Water is available since the 2019 EIR. The quality of drinking water in Estonia has not been indicated as an area of concern.

The recast Drinking Water Directive[106] entered into force on 12 January 2021, and Member States have until 12 January 2023 to transpose it into their national legal system. Estonia will have to comply with the reviewed quality standards.

Bathing Water Directive

Regarding the Bathing Water Directive, Figure 31 shows that in 2020, out of the 64 Estonian bathing waters sites, 62.5% were of excellent quality,[107]. Detailed information on Estonian bathing waters is available from a national portal [108] and via an interactive map viewer of the European Environment Agency [109].

Figure 30: Bathing water quality in Europe in the 2020 season[110]

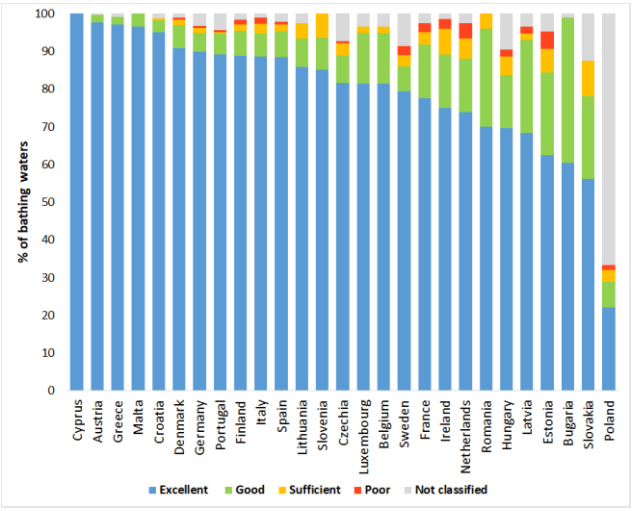
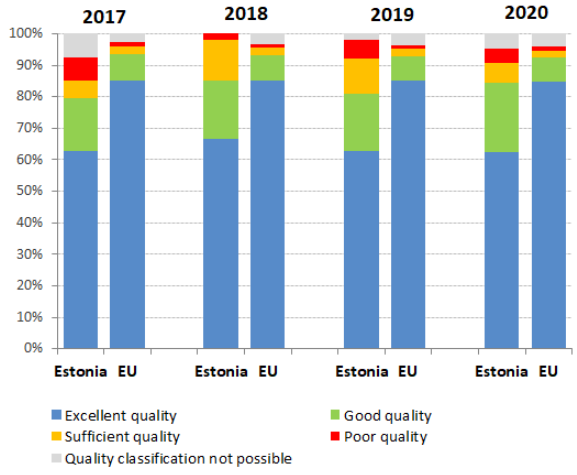


Figure 31: Bathing water quality 2017-2020[111]



For 2017, 2018 and 2019, data about the UK bathing waters are included under the EU average.

Nitrates Directive

The latest Commission report on the implementation of the Nitrates Directive[112], referring to the period 2016-2019[113], warns that nitrates are still causing harmful pollution to water in the EU. Excessive nitrates in water are harmful to both human health and ecosystems, causing oxygen depletion and eutrophication. Where national authorities and farmers have cleaned up waters, it has had a positive impact on drinking water supply and

[105] OJ L 330, 5.12.1998, pp. 32–54.
[106] OJ L 435, 23.12.2020, pp. 1–62.
[107] European Environment Agency, 2021. State of bathing water — European Environment Agency (europa.eu) , p. 17.
[108] http://vtiav.sm.ee/index.php/?active_tab_id=SV
[109] EEA, State of bathing waters in 2020 — European Environment Agency (europa.eu)
[110] European Environment Agency, Bathing Water Quality in 2020, 2022.
[111] European Environment Agency, European Bathing Water Quality in 2017, 2018, 2019, 2020.
[112] Council Directive 91/676/EEC
[113] COM(2021) 1000 final

biodiversity, and on the sectors such as fisheries and tourism that depend on them. Nevertheless, excessive fertilisation remains a problem in many parts of the EU. Compliance with the Nitrates Directive is a prerequisite for reaching the objective of reducing nutrient losses by at least 50% by 2030 enshrined in the EU Biodiversity and Farm to Fork Strategies. It calls for rapid action, which should start with the full enforcement of the related legislation.

In Estonia, the surplus of nitrogen is low and there is a deficit of phosphorus. There is a well-developed network of monitoring stations and the groundwater quality is generally good. However, a high number of surface waters are eutrophic, in and outside nitrate vulnerable zones and for both inland and marine waters. Estonia is one of seven Member States that have hotspots where nitrates pollution should be urgently diminished[114].

Urban Waste Water Treatment Directive

In Estonia the compliance rate with the Urban Waste Water Treatment Directive (UWWTD) is 99% which is higher than the EU average in 2018. Estonia has met the targets for collection of urban waste water and biological treatment of urban waste water. Further efforts are needed to provide biological treatment with nitrogen and phosphorus removal to additional 0.01 million population equivalent (p.e.) of urban waste water (0.8%).

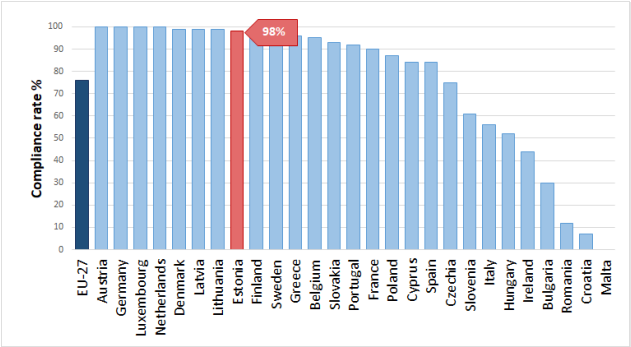
According to a Commission's report[115], in line with the UWWTD, Estonia is required to provide in urban areas:

- Collection of 1.5 million p.e. of waste water;
- Biological treatment to 1.4 million p.e. of waste water;
- Biological treatment with nitrogen removal to 1.3 million p.e. of waste water.

Estonia reuses 91.9 % of waste water sludge in agriculture and landfills the remaining 8.1 %.

The main pollution sources to coastal waters is diffuse pollution (agriculture, forestry, also cross-border influence from the open sea) and point sources. Discharges from storm water overflows are not reported as significant pressures.

Figure 32: Proportion of urban waste water that meets all requirements of the UWWTD (collection, biological treatment, biological treatment with nitrogen and/or phosphorus removal) in compliant urban areas of the UWWTD ('compliance rate'), 2018[116]



Since the 2019 priority actions were not fully implemented, they are reproposed. An action stemming from the Estonia-specific annex to the above-mentioned Commission report on the implementation of the Nitrates Directive has been added.

2022 priority actions

- Assess new physical modifications of water bodies in line with Article 4(7) of the WFD. In these assessments, alternative options and adequate mitigation measures have to be considered.
- Continue current efforts to tackle agricultural and non-agricultural pollution in water bodies and continue efforts to establish ecological flows for all relevant water bodies.
- Improve the coordinated implementation between water, marine and nature policies.
- Complete implementation of the Urban Waste Water Treatment Directive for all agglomerations, by building up the necessary infrastructure.
- Revise the designation of nitrate vulnerable zones under the Nitrates Directive to include areas that drain into waters that are eutrophic and revise the action programme in particular to reduce and prevent eutrophication of inland and marine surface waters where the agricultural pressure is significant.

Chemicals

The EU seeks to ensure that chemicals are produced and used in a way that minimises any significant adverse

[114] https://ec.europa.eu/commission/presscorner/detail/en/ip_21_5109
[115] Country profiles on urban waste water treatment (europa.eu)
[116] European Commission, WISE Freshwater, 2021.

effects on human health and the environment. In October 2020, the Commission published its chemicals strategy for sustainability – 'Towards a Toxic-Free Environment'[117], which led to some systemic changes in EU chemicals legislation. The strategy is part of the EU's zero pollution ambition – a key commitment of the European Green Deal.

The EU's chemicals legislation[118] provides baseline protection for human health and the environment. It also ensures stability and predictability for businesses operating within the internal market.

Since 2007, the Commission has gathered information on the enforcement of the Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals ('the REACH Regulation') and the Regulation on Classification, Labelling and Packaging ('CLP Regulation'). In December 2020, the Commission assessed the Member States' reports on the implementation and enforcement of these Regulations[119], in line with Article 117(1) of the REACH Regulation and Article 46(2) of the CLP Regulation. According to the latest available data, national enforcement structures have not changed much in recent years. However, it is apparent from this report that there are many disparities in the implementation of the REACH and CLP Regulations, notably in the area of law enforcement. Recorded compliance levels in Member States seem to be quite stable over time, but with a slight worsening trend, which is likely due to: (i) enforcement authorities being more effective in detecting non-compliant products/companies; and (ii) more non-compliant products being put on the EU market.

In August 2021, the Commission published a measurable assessment of the enforcement[120] of the two main EU Regulations on chemicals (the REACH Regulation and the CLP Regulation) using a set of indicators on different aspects of enforcement.

Responsibility for checking compliance with REACH in Estonia lies with the following authorities:

- Health Board
- Environmental Board
- Estonian Rescue Board
- Consumer Protection and Technical Regulatory Authority
- Labour Inspectorate
- Tax and Customs Board

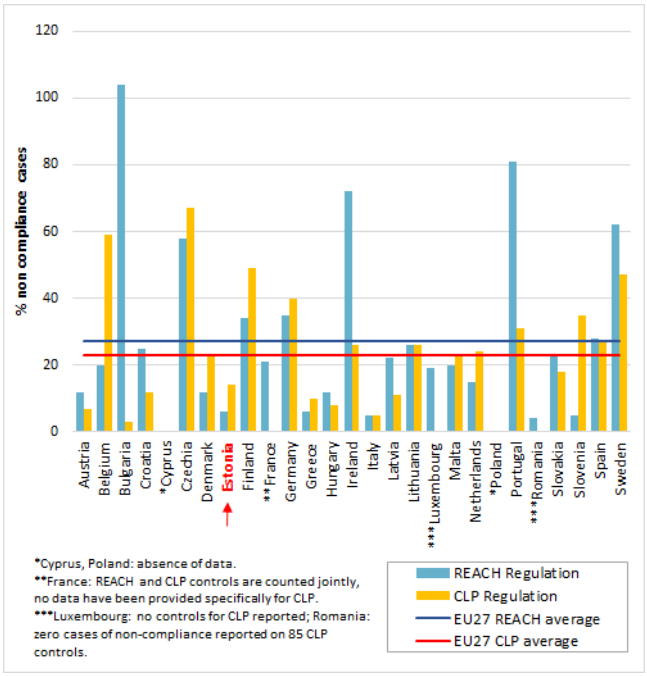
Estonia has devised and partly implemented both REACH and CLP enforcement strategies[121]. They include:

- risk-based prioritisation: focus on high-risk companies and reactive inspections and
- campaigns focused on new requirements and issues most frequently raised with the helpdesk.

As a rule, all infringements of REACH are classed as serious or very serious environmental administrative offences. If the infringement is sufficiently serious, the competent authority may decide to impose further penalties in addition to a fine. That authority may also, where necessary, order the provisional seizure of assets and documents.

There were 2 040 REACH checks in Estonia in the reporting period. Most of them were proactive (inspections), rather than reactive/non-routine (i.e. investigations in response to complaints, accidents and referrals). It is worth emphasising that non-compliance cases formed a small percentage of the total number of checks[122].

Figure 33: Percentage (%) of non-compliance cases out of the total number of REACH and CLP controls during 2019 per Member State and compared to the EU average[123]



[117] COM(2020) 667 final.
[118] REACH: OJ L 396, 30.12.2006, p.1. - CLP: OJ L 252, 31.12.2006, p.1
[119] European Commission, Final Report on the operation of REACH and CLP, Final report REACH-CLP MS reporting 2020.pdf (europa.eu).
[120] European Commission, REACH and CLP enforcement: EU level enforcement indicators.
[121] Technical assistance to review the existing Member States reporting questionnaire under articles 117(1) of REACH and 46(2) of CLP, Final report, p. 76.
[122] Idem, p.87-88
[123] European Commission, Final Report, on the operation of REACH and CLP, pp.87-88, 2022.

2022 priority actions

- Upgrade the implementation and enforcement of administrative capacities towards a zero tolerance to non-compliances.
- Fully implement the REACH and CLP enforcement strategies.

4. Climate Action

In line with the Paris Agreement and as part of the European Green Deal, the European Climate Law sets the EU target of reaching climate neutrality by 2050 and reducing greenhouse gas (GHG) emissions by 55% by 2030 compared to 1990. The law also limits the contribution that carbon removals can make towards emission reductions in 2030 to ensure a sufficient mitigation effort.

The EU and its Member States submitted updated nationally determined contribution (NDC) to the UNFCCC in December 2020.

The EU is working across all sectors and policies to cut GHG emissions and make the transition to a climate-neutral and sustainable economy, as well as addressing the unavoidable consequences of climate change.

EU climate legislation incentivises emissions reductions from power generation, industry, transport, the maritime sector and fluorinated gases (F-gases) used in products.

For road transport, EU legislation requires the GHG intensity of vehicle fuels to be cut by 6% by 2020 compared to 2010[142] and sets binding GHG emission standards for different vehicle categories[143].

Under the F-gas Regulation, the EU's F-gas emissions will be cut by two thirds by 2030 compared with 2014 levels.

From 2021, emissions and removals of GHGs from LULUCF have been included in the EU emission-reduction efforts.

The EU adaptation policy is an integral part of the European Green Deal. From 2021, Member States are required to report on their national adaptation policies[144], as the EU Climate Law recognises adaptation as a key component of the long-term global response to climate change. Member States will be required to adopt national strategies, and the EU will regularly assess progress as part of its overall governance on climate action. The updated EU adaptation strategy, published in February 2021, sets out how the EU can adapt to the unavoidable impacts of climate change and become climate resilient by 2050.

Key national climate policies and strategies

Estonia has an integrated *National Energy and Climate Plan* (NECP) for the years 2021-2030. The work builds on long-term energy and climate plans, and is also consistent with the *Low-Carbon Strategy until 2050*. Estonia'she long-term target is to reduce the emission of greenhouse gases by 2050 by 80 % in comparison with the emission levels of 1990. As the country moves towards this target, emissions will be reduced by about 70 % by 2030 and by 72 % by 2040 in comparison with the 1990 emission levels.

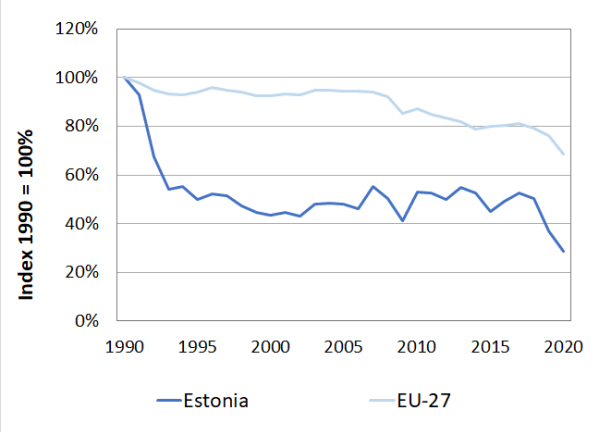
In May 2022, the government adopted the 'Estonia 2035' strategy setting out five long-term strategic goals, including climate neutrality by 2050. Estonia remains a GHG-intensive economy due to its reliance on oil shale. It is on the right track towards a significant reduction in greenhouse gas emissions, whereas additional efforts are needed in specific sectors.

In its RRP, Estonia allocates over 42% of the budget to climate measures, including investments in clean energy production, energy efficiency and, sustainable transport.

The *National Adaptation Strategy* was adopted in April 2017 to increase the readiness and capacity of the state, the regional and local level to adapt to the effects of climate change.

Between 1990 and 2020, economy wide greenhouse gas emissions in Estonia decreased by 65%. However, it is important to contribute to renewable energy solutions to cut greenhouse gas emissions.

Figure 34: Total greenhouse gas emissions (incl. international aviation) in Estonia, 1990-2020



While declining, emissions in the energy sector account for the largest share of the greenhouse gas emissions in Estonia and are mostly covered by the EU ETS. Although the share of renewable energy sources has increased in recent years, energy and heat are still predominantly produced from fossil fuels; i.e. oil shale and gas. Consequently, Estonia remains one of the most carbon intensive economy in the EU.

Effort sharing

For emissions not covered by the EU's emissions trading scheme (ETS), Member States have binding national targets under the Effort Sharing legislation[124]. Under EU legislation, Estonia has a target not to increase greenhouse gas emissions in the non-ETS sectors (buildings, road and domestic maritime transport, agriculture, waste and small industries) by more than 11% by 2020 and reduce them by 13% by 2030, compared to 2005 (Figure 36). The country's non-ETS emissions in 2020 were lower than its 2020 target. Over the last few years, emissions have decreased in industry, and the domestic transport sectors.

In its National Energy and Climate Plan, Estonia intends to achieve higher reductions than its current non-ETS target for 2030 of -13%. Estonia will need to put in place more climate mitigation measures to reach the 2030 NECP target.

Figure 35: Emissions and targets under the Effort Sharing Decision/ Effort Sharing Regulation in Estonia, 2020 and 2030 as percentage change from 2005

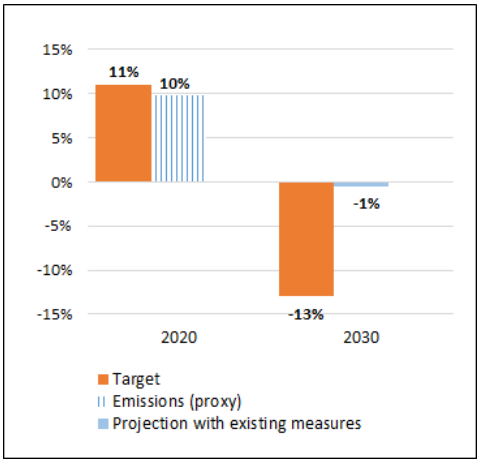
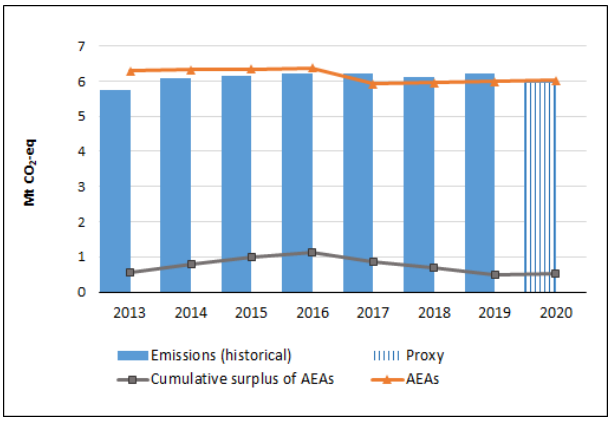


Figure 36: Emissions, annual emission allocations (AEAs) and accumulated surplus/ deficit of AEAs under the Effort Sharing Decision in Estonia, 2013-2020



Key sectoral developments

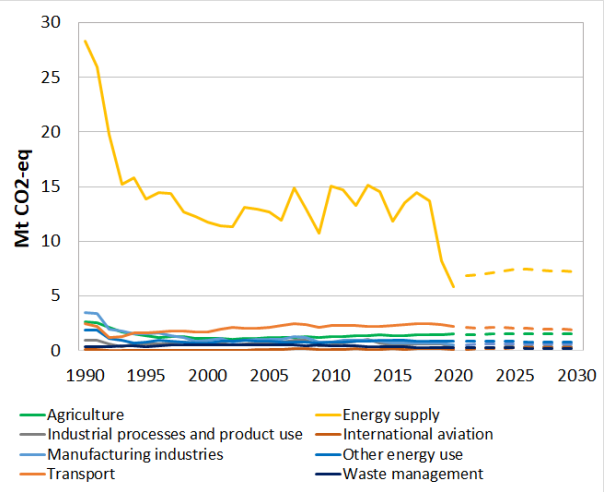
In road transport, the GHG intensity of vehicle fuels in Estonia decreased by 1,8% from 2010 to 2019. The country needs to act swiftly to meet the current reduction target by 6%. There are several types of action that Member States can take in this regard, for example, further expanding the use of electricity in road transport, supporting the use of biofuels, in particular advanced biofuels, incentivizing the development and deployment of renewable fuels of non-biological origin and reducing upstream emissions before refining processes. Road transport in Estonia represented 17% of the total greenhouse gas emissions in 2020. Emissions have increased by 9% compared to 2005.

[124] Regulation (EU) 2018/842

To reach the climate targets, the building stock needs to be renovated.

Emissions from agriculture, have increased.

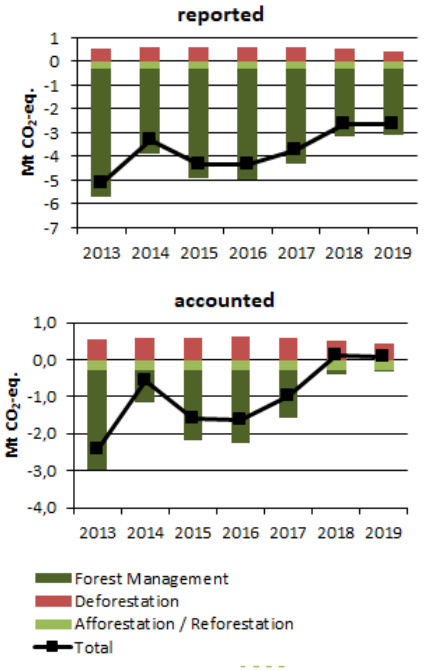
Figure 37: Greenhouse gas emissions by sector in Estonia[125] – historical emissions 1990-2020, projections 2021-2030[126]



The Land Use, Land Use Change and Forestry (LULUCF) sector, reported decreasing net removals over recent years and has switched from net removals in 2019 to net emissions in 2020. Furthermore, Estonia projects a further decrease of net removals by 2030 due to the existing age structure of its forests and extensive forest cover.

A six-fold decrease of the LULUCF carbon sink has been forecasted by 2030, as announced in the Estonian National Energy and Climate Plan. Improvements are needed in this regard as removals by sinks in the LULUCF sector have decreased from 2013 to 2019 (Fig. 38). Special attention should be brought to this sector to allow a sustainable use of biomass and ensure the functioning of the forest sink.

Figure 38: Reported and accounted emissions and removals from LULUCF in Estonia [127]



Use of revenues from the auctioning of EU ETS allowances

The total revenues from the auctioning of emission allowances under the EU ETS over the years 2012-2021 were nearly EUR 784 million. In 2020, 100 % of the auctioning revenues were spent on climate and energy purposes. In Estonia, 50% of auctioning revenues are earmarked and directed through the four-year State Budget Strategy and spent on climate and energy projects and measures, which may take multiple years. Unspent revenues are carried over to later years and always used for climate and energy projects. Around 48%[128] of the auctioning revenues earmarked for these measures have been covered with sub-decisions for more concrete climate and energy actions. The remaining 50% go to the general budget, which, among others, goes to climate and energy investments.

2022 priority actions

- Further reduce energy consumption, particularly in buildings and transport.
- Prepare transitioning on climate-neutral

[125] The sectors in the figure correspond to the following IPCC sectors: Energy supply: 1A1, 1B and 1C. Energy use in manufacturing industries: 1A2. Industrial processes and product use: 2. Transport: 1A3. Other energy use: 1A4, 1A5 and 6. Agriculture: 3. Waste: 5. International aviation: 1.D.1.a.

[126] European Environmental Agency, Total GHG trends and projections.

[127] The differences between reported and accounted emissions from LULUCF under the Kyoto Protocol are described in the '*explanatory note on LULUCF – accounted and reported quantities under the Kyoto Protocol*'.

[128] The final data will be presented in the report on the use of ETS Auctioning Revenues under Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action.

energy system (energy efficiency, continued phasing out of oil shale activities, generation of climate-neutral electricity, heating and cooling).

- Increase uptake of renewable energy. Estonia has great potential for offshore wind farms in the Nordic-Baltic region, and is exploring the development of green hydrogen production.
- Ensure sustainable use of biomass. This would improve the functioning of the LULUCF sink.

Part II: Enabling Framework: Implementation Tools

5. Financing

Environmental investment needs in the European Union

Financing environmental measures is essential for their success. Although most financing comes from national sources, various EU funds contribute significantly, helping to close the financing gaps.

Post-2020, environmental implementation will also be supported by the EU's COVID-19 Recovery Fund (via the RRF) and the 'do no significant harm' principle which runs across the EU budget. The renewed commitments made at COP26 (Glasgow, October-November 2021) and the Biodiversity Convention (April-May 2022)[152] will also be reflected in the EU budget.

Overall environmental investment gaps (EU-27)

The EU's investment needs for the green transition cover a range of interlinked areas. The additional investment needs over the baselines (i.e. the gap between what is needed and what is forecast to be invested if no additional action is taken) for climate, energy and transport were estimated in 2021 at EUR 390 billion a year (EU-27[129] with a further EUR 130 billion a year to deliver the EU's core environmental objectives[130]. The costs of climate-change adaptation can also be significant, and are estimated to reach a total of EUR 35-62 billion (narrower scope) or EUR 158-518 billion (wider scope) per year[131]. Those investment needs reflect the implementation objectives to 2020 and to 2030 (except for climate-change adaptation, the costs of which are expected to last over a longer time horizon).

A preliminary update of the EU's core environmental investment gap is provided in Table 1[132]. Almost 40% of the environmental-investment needs relate to dealing with pollution, which accounts for nearly two thirds of the total gap if combined with water management. The investment gap in circular economy and waste is estimated to be between EUR 13-28 billion a year, depending on levels of circularity implemented. The annual biodiversity financing gap is estimated at around EUR 20 billion.

Table 1: Estimated breakdown of the EU's environmental investment gaps, by environmental objective, 2021-2030 per year[133]

Environmental objective	Estimated investment gap (EU-27, p.a.)	
	EUR	%
Pollution prevention & control	42.8	39%
Water management & industries	26.6	24%
Circular economy & waste	13.0	12%
Biodiversity & ecosystems	21.5	20%
R & D & I and other	6.2	6%
Total	**110.1**	**100%**

Environmental investment needs in Estonia

Investments in the circular economy is a priority in Estonia, followed by sustainable water services and nature and biodiversity investments. The following environmental investment needs have been identified by sector.

Pollution prevention & control

The EU's First Clean Air Outlook[134] under the Clean Air Programme estimated that the total air pollution control costs for Estonia to reach the NECD emission reduction requirements (ERRs)[135] by 2030 amount to EUR 220 million

[129] SWD(2021)621, accompanying proposal COM(2021)557 to amend the REDII Directive (EU) 2018/2001.
[130] SWD(2020) 98 final/2.
[131] SWD(2018)292. Impact assessment accompanying the Proposal for the LIFE Regulation (COM(2018)385).
[132] With decreases due to Brexit and some reconciliation among the objectives.
[133] European Commission, DG Environment, "Study supporting EU green investment needs analysis" (ongoing, 2021-2023) and DG Environment internal analysis "Environmental Investment needs and financing in the EU's green transition", July 2020.
[134] International Institute for Applied Systems Analysis (IIASA), Progress towards the achievement of the EU's air quality and emissions objectives, 2018.
[135] Covering the reductions of and the emission ceilings for 5 atmospheric pollutants, SOx, NOx, PM2.5, NH3 and VOC by 2030, compared to 2005. Requirements are based on Directive (EU) 2016/2284.

per year, including, EUR 117 million for capital investment (assuming the 2030 climate and energy targets are achieved).

The second EU's Clean Air Outlook[136] that the EU would largely achieve the reductions of air pollutant emissions that correspond to the obligations under the NEC Directive for 2030 if: (i) all relevant legislation adopted up to 2018 is implemented (including all air-pollution legislation and the 2030 climate and energy targets set in 2018); and (ii) Member States also implemented the measures announced in their national air-pollution-control programmes. The only exception is for ammonia for 15 Member States, including Estonia.

Water management

According to the OECD study on Financing a Water Secure Future (2022)[137], the remain gaps in public water supply and sewerage treatment, despite large investments over the past decade. Wastewater is still not collected in the required quantities and its treatment does not always meet requirements, especially in rural areas. According to Estonia's current plan, after 2023, water companies serving larger communities will need to be financially self-sustainable and cover the investment needs with water tariffs and loans. The government is supporting this process with improved financing support for regional companies. EU funding has provided a significant share of past public funding over the past decade.

Up to 2030, the additional cumulative investment need for Estonia over the baseline levels was estimated at EUR 361 million (around 36 million per year), with around 90% of that relating to wastewater[138]. Further, pre-treatment standards for industrial wastewater discharges into municipal sewerage systems are outdated and do not cover many important hazardous substances. Whilst Estonia reported some measures as part of the River Basin Management Plan under the Water Framework Directive completed for all river basin districts [139], the firstt programme of measures has not been fully implemented. A lack of adequate finance is likely to continue to hinder the implementation of the second (2015-2021[140]) and the thirds (2021-2027) programme of measures. In Estonia, the "Water Infrastructure Investment Plan" in 2019 estimated that 1.1 billion Euro should be invested in the water management infrastructure in the next 12 years. In order to maintain or achieve compliance with the requirements of the UWWD and DWD, around EUR 893 million will be required, out of which EUR 434 million in the next four years and EUR 459 million in the next 5-12 years. Moreover, the recent 6th Water Framework Directive and Floods Directive Implementation Report[141] and the financial - economic study[142] accompanying it, are also a relevant source of information in this domain.

Waste & circular economy

According to a Commission study,[143] to meet the recycling targets for municipal waste and packaging waste, Estonia still needs to invest an additional EUR 64 million (around 9 million per year) over the baselines between 2021-2027 in collection, recycling reprocessors, biowaste treatment, waste sorting facilities and digitalising waste registries.

In addition, the cost of replacing biowaste treatment facilities is estimated at EUR 2.3 million between 2021 and 2027 (EUR 0.3 million per year). This does not include investment necessary for other key waste streams (plastics, textiles, furniture) or to unlock a higher uptake of circularity and waste prevention across the economy.

Biodiversity & ecosystems

Prioritised action frameworks (PAFs) adopted by the Member States according to Article 8 of the Habitats Directive present: (i) the conservation priorities for the Natura 2000 network and its supporting green infrastructure; (ii) the costs of these conservation priorities; and (iii) planned funding sources for biodiversity and ecosystems in the period corresponding to the current multiannual financial framework (MFF) for 2021-2027.

The recently submitted PAF for Estonia shows that nature protection costs (including Natura 2000) in 2021-2027 are EUR 304.5 million. This represents an annual cost of about EUR 43.5 million, of which EUR 26.2 million are one off costs[144]. More efforts may be necessary to cover the increased ambitions of the EU Biodiversity Strategy 2030 and any relevant financing gaps on protection and restoration.

[136] COM(2021) 3 Final and Report Annex.
[137] OECD, *Financing a Water Secure Future*, 2022
[138] OECD, *Estonia - Country fact sheet- Financing Water Supply, Sanitation and Flood Protection*.
[139] WFD and FD Implementation Reports - Environment - European Commission (europa.eu)
[140] Not yet evaluated
[141] WFD and FD Implementation Reports – DG Environment – European Commission.
[142] European Commission, Directorate-General for Environment, Economic data related to the implementation of the WFD and the FD and the financing of measures, Final report. Publications Office, 2021.
[143] European Commision, *Study on investment needs in the waste sector and on the financing of municipal waste management in Member States*, 2019.
[144] The N2K Group, *Strengthening investments in Natura 2000 and improving synergies with EU funding instruments report to the European Commission*, 2021.

EU environmental funding 2014-2020

The MFF for 2014-2020 allocated almost EUR 960 billion (in commitments, 2011 prices)[145] for the EU to spend over this period. The commitment in this 2014-2020 MMF to the green transition included a 20% climate spending target. It also included funding opportunities for the environment, in particular under the European Structural and Investment (ESI) Funds[146]. The 2014-2020 MFF budget was subsequently topped up with over EUR 50 billion (in current prices) from the REACT-EU programme for cohesion-policy action against COVID-19[147].

Estonia received EUR 4.9 billion from the ESI Funds over 2014-2020 to invest in job creation and a sustainable and healthy European economy and environment. The planned direct environmental investment amounted to EUR 349.8 million with a further EUR 243.6 million identified as indirect environmental investment value, totalling EUR 593.5 million. Figure 40 shows an overview of (planned) individual ESI Funds earmarked for Estonia (EU amounts, without national amounts).

Figure 39: ESI Funds allocated to Estonia, including environmental investments, 2014-2020[148]

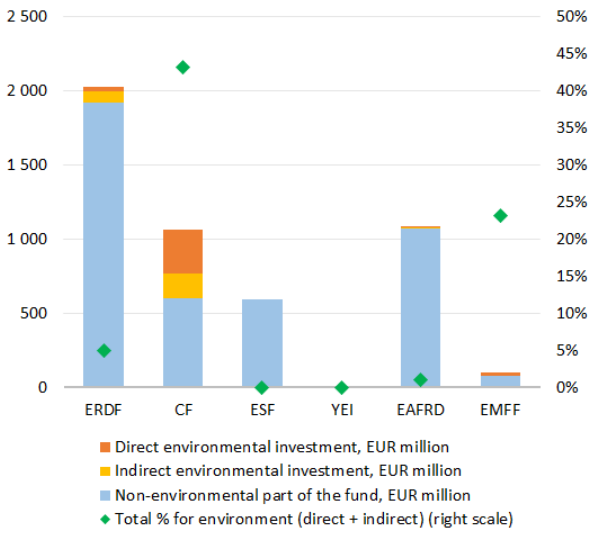


Table 2: Direct and indirect environmental investments under the ESI Funds in Estonia, 2014-2020[149]

Instrument	Allocations for the environment (EUR million)
Under Cohesion policy (ERDF + CF)	**558.5**
Direct environmental investments	321.4
water	129.8
biodiversity and nature	53.2
land rehabilitation	50.2
climate and risk management	88.1
Indirect environmental investments	237.1
renewable energy	4.1
energy efficiency	76.9
other energy[150]	24.2
sustainable transport	95.4
sustainable tourism	3.0
business development, R&I	33.6
Under EAFRD/rural development	**11.7**

[145] Council Regulation (EU, Euratom) No 1311/2013.

[146] The European Structural and Investment (ESI) Funds include the European Regional Development Fund (ERDF), the Cohesion Fund (CF), the European Social Fund (ESF) with the Youth Employment Initiative (YEI), the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF).

[147] Regulation (EU) 2020/2221.

[148] European Commission, DG Environment - Data analysis based on ESI Funds Open Data Portal (cohesiondata.ec.europa.eu), Integration of environmental concerns in Cohesion Policy Funds (COWI, 2017), Regulation (EU) No 1303/2013,Regulation (EU) 2021/1060 and Implementing Regulation (EU) No 215/2014. Environmental investments here are captured via the combined use of intervention fields and coefficients under the Regulation (EU) No 1303/2013 and Regulation (EU) 2021/1060 allowing for a more precise identification and valuation of relevant environmental investments. N.B. Indirect environmental investments are valued using the Annex I environmental coefficients of the Regulation (EU) 2021/1060 (as opposed to full value).

[149] European Commission, DG Environment - Data analysis. The values of environmental investments identified here in the specific environmental areas may differ from the tracking values at cohesiondata.ec.europa.eu, e.g. for clean air or biodiversity due to two factors: the set of environmental coefficients used and the range of funds assessed. DG Environment's analysis here covered the full range of ESI Funds. See also previous footnote.

[150] Intelligent energy distribution systems (smart grids) and high efficiency co-generation and district heating, based on intervention field 53 and 54 respectively (with 40% environmental coefficients) of Regulation (EU) 2021/1060, Annex I.

Direct environmental investments	5.2
water	0.6
climate and risk management	4.6
Indirect environmental investments	6.4
renewable energy	3.7
energy efficiency	2.8
Under EMFF	**23.3**
Direct environmental investments	23.2
Environment protection & resource efficiency	23.2
Direct environmental investments	0.1
business development, R&I	0.1
Under ESI Funds total	**593.5**
Direct environmental investments	349.8
Indirect environmental investments	243.6

Funding for the environment from the ESI Funds has also been supplemented by other EU funding programmes available to all Member States such as the LIFE programme, Horizon 2020, or loans from the European Investment Bank (EIB). The LIFE programme[151] is entirely dedicated to environmental and climate objectives. It finances best-practice actions for green solutions to be deployed. They add up to an estimated total of EUR 636 million of EU environmental financing for Estonia in 2014-2020.

In the period 2014-2020, Estonia received EU support for seven LIFE projects (for nature and environment), with EUR 32.0 million from the LIFE programme (out of 1 028 EU27 LIFE projects with a total EU contribution of EUR 1.74 billion).[152]

In 2014-2020, about EUR 10.5 million were allocated to Estonia under Horizon 2020 for the environment (in particular for earth observation, reseach and innovation), with 3.8% for the environment out of Estonia's total allocation.[153] From the European Fund for Strategic Investments (EFSI) Estonia received a total of EUR 58.0 million in financing, without projects dedicated to the environment.[154] Estonia did not receive any EIB loans for the environment, despite the overall EUR 1.4 billion EIB lending to Estonia in the period.[155] The country ranks24th by size of total EIB lending.

In 2020, the EIB provided EUR 24.2 billion in funding across Europe to fight climate change, 37% of its total financing. It also provided EUR 1.8 billion (3% of its financing) for broader environmental lending[156] [157].

EU environmental funding 2021-2027

The 2020 European Green Deal investment plan calls for EUR 1 trillion in green investments (public and private) to be made across the EU by 2030. The 2021-2027 MFF and the NextGenerationEU spending programme will mobilise EUR 2.018 trillion (in current prices) to support the recovery from COVID-19 and the EU's long-term priorities, including environmental protection[158]. Following the EU Green Deal's[159] pledge to 'do no harm' and the Interinstitutional Agreement on the 2021-2027 MFF[160], 30% of the EU budget in 2021-2027 will support climate efforts, while biodiversity will receive 7.5% of the EU budget as of 2024 and 10% as of 2026.

Sustainable finance significantly increases transparency on environmental sustainability (a goal promoted by the EU Taxonomy)[161]. It also strengthens non-financial reporting requirements and facilitates the issuance of green bonds (by developing the EU Green Bond Standard)[162]. Reinforced by the renewed sustainable-finance strategy (2020)[163], sustainable finance will increase investment flows to climate and the environment. The new strategy on adaptation to climate change[164] can help to address many risks from uninsured climate-related events[165]. The EIB will align 50% of its lending for climate and environment projects by 2025[166], with an EUR 250 billion contribution to the Green Deal investment plan by 2027.

[151] European Commission, LIFE Programme.
[152] LIFE Country overview Estonia 2021 (europa.eu)
[153] Source: https://sc5.easme-web.eu/.
[154] Approved and signed EFSI financing - EIB, 2015-2020: Source: https://www.eib.org/en/products/mandates-partnerships/efsi/index.htm.
[155] EIB loans in EU countries in 2014-2020. Source: EIB Open Data Portal: https://www.eib.org/en/infocentre/eib-open-data.htm
[156] The EIB Group jointly works with the European Commission in implementing several programs that finance environmental implementation: InvestEU, the successor of EFSI, Pillar II and III of the Just Transition Mechanism. The EIB Group stands as a key implementing partner for InvestEU with responsibility for managing 75% of the overall budgetary capacity of the mandate.
[157] EIB Activity Report 2021.
[158] European Commission, 2021-2027 long-term EU budget & NextGenerationEU.
[159] COM/2019/640 final.
[160] Interinstitutional Agreement, OJ L 433I.
[161] https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en
[162] EU Green Bond Standard - 2021/0191 (COD).
[163] COM (2021) 390 Final - European Commission, Strategy for Financing the Transition to a Sustainable Economy.
[164] COM(2021) 82 final.
[165] The strategy would support improved insurance gap coverage including through the natural catastrophe markets as reflected with the EIOPA (the Association for European Insurance and Occupational Pension Authorities) dashboard on insurance protection gap for natural catastrophes. See: The pilot dashboard on insurance protection gap for natural catastrophes | Eiopa (europa.eu).
[166] EIB Climate Bank Roadmap 2021-2025, November 2020.

Table 3 makes an overview of the EU funds earmarked specifically to Estonia for the 2021-2027 period. The funds allocated for individual countries are also supplemented by other EU funding available to all Member States.

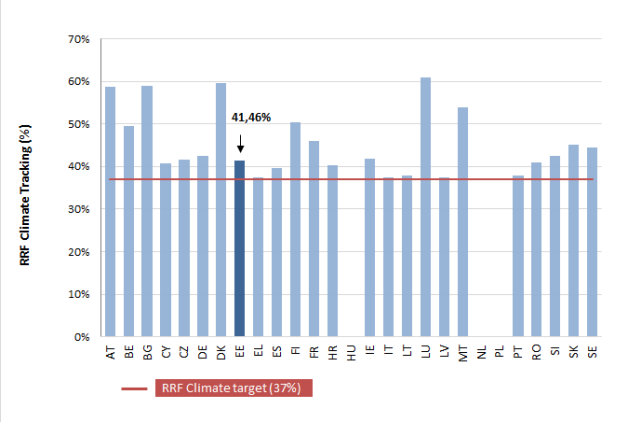
Table 3: Key EU funds allocated to Estonia (current prices), 2021-2027

Instrument	Country funding allocation (million EUR)
Cohesion policy ERDF CF ESF+ ETC (ERDF)	**Total:** [167] 1 692.6 820.2 [168] 502.6 58.1[169]
Just Transition Fund	**353.9**[170]
EAFRD/rural development under CAP Strategic Plans 2023-2027[171]	**440.1**[172]
European Maritime, Fisheries and Aquaculture Fund (EMFAF)	**97.4**[173]
RRF 2021 – 2026[174]	**969.3**[175] (grants)

In Estonia, the programming for the majority of EU funds (cohesion policy funds, EAFRD and EMFAF) is ongoing. However, the negotiations have been concluded under the RRF.

Estonia's recovery and resilience plan consists of 25 investments and 16 reforms. They will be supported by EUR 969.3 million in grants. 41.5 % of the plan will support climate objectives. The plan has a focus on circular economy, especially on its business angle, but lacks other environmental investments, notably biodiversity measures. The plan is well aligned with the overarching national strategy "Estonia 2035". The main investments in the recovery plan are linked to the green and digital transitions. The plan will support a total of EUR 220 million in the green transition of businesses through a dedicated Green Fund, the deployment of innovative and resource-efficient green technologies, the valorisation of bio-resources, the uptake of integrated hydrogen technologies, the development of green skills and significant investments in transport decarbonisation, notably supporting the shift to rail transport. It includes circular economy reform; one of the milestones is the adoption of the circular economy action plan [176].

Figure 40: Climate expenditure in RRP, 2021-2026[177]



Under NextGenerationEU, the Commission will issue up to EUR 250 billion of EU green bonds (one third of all bonds issued under NextGenerationEU) until 2026 that will comply with the general spirit of the 'do no significant harm' principle. However, this EUR 250 billion in green bonds will not be subject to the currently developed delegated acts related to the EU Taxonomy and will not fully align with the proposed EU standard for green bonds.

In addition to EU funds earmarked specifically for Estonia in the 2021-2027 period, there are also funding programmes that can been accessed at the EU level which are open to all Member States. These include the LIFE programme (EUR 5.4 billion), Horizon Europe (EUR 95.5 billion)[178], the Connecting Europe Facility[179] (EUR 33.7 billion)[180] or the funds to be mobilised via the InvestEU[181]

[167] European Commission, 2021-2027 Cohesion policy EU budget allocations.
[168] The transfer to the Connecting Europe Facility (Transport) is not included.
[169] Interreg initial allocations per MS including ETC transnational and ETC cross-border cooperation.
[170] European Commission, 2021-2027 Cohesion policy EU budget allocations.
[171] European Commission, CAP strategic plans.
[172] Regulation (EU) 2021/2115, Annex XI.
[173] Regulation (EU) 2021/1139, Annex V.
[174] The actual reforms and investments under the RRF have to be implemented until 31 December 2026.
[175] Council Implementing Decision, FIN 523.
[176] European Commission, Estonia recovery and resilience plan.
[177] European Commission
[178] European Commission, Multiannual financial framework 2021-2027 (in commitments) - Current prices.
[179] The CEF (Transport) includes also EUR 11.3 billion transferred from the Cohesion Fund. 30 % of the transferred amount will be made available, on a competitive basis, to all Member States eligible for the Cohesion Fund. The remaining 70% will respect the national envelopes until 31 December 2023. Any unspent amount, by that date, under national envelopes will support all Cohesion Fund's Member States.
[180] Regulation (EU) 2021/1153.
[181] The InvestEU Fund is foreseen to mobilise over EUR 372 billion of investment through an EU budget guarantee of EUR 26.2 billion to back

programme. These other sources of funding will also support the green transition, including research and innovation activities for environmental protection (Horizon Europe)[182], clean transport and energy (the Connecting Europe Facility)[183] or sustainable infrastructure (InvestEU)[184].

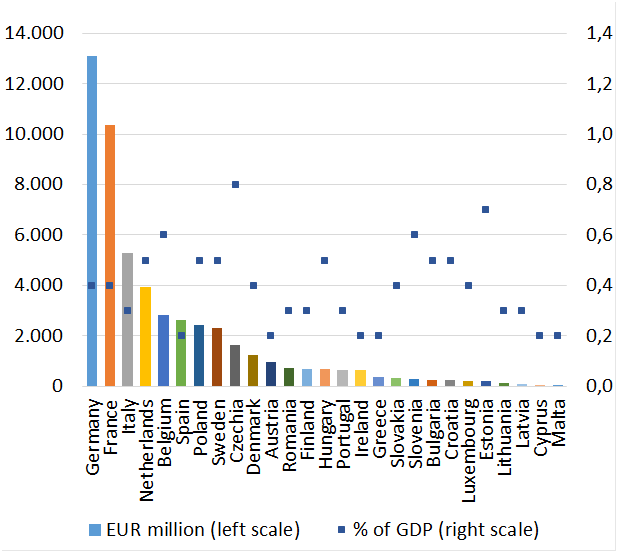
National environmental protection expenditure

Total national environmental protection expenditure (including all relevant current and capital expenditure)[185] in the EU-27 was EUR 272.6 billion in 2020, representing 2% of the EU27 GDP .

This percentage has remained quite stable over time. Although the largest absolute amounts of expenditure are concentrated in a few countries, most countries spend 1-2% of their GDP on environmental protection, with Belgium and Austria spending the greatest share (both direct more than 3% of their GDP on environmental expenditure).

Of this spending, the EU-27's capital expenditure on environmental protection (i.e. investment) amounted to EUR 54.5 billion in 2020, representing around 0.4% of EU-27 GDP. Most Member States invested 0.2-0.5% of their GDP in environmental protection, whereas Estonia dedicated 0.7%. In 2014-2020, this amounted to around EUR 376 billion of environmental investment in the EU27, and to EUR 1.23 billion in Estonia.

Figure 41: Environmental protection investments in the EU-27 (EUR million and % of GDP), 2018[186]



By institutional sector, around a quarter of Estonia's environmental protection investments (capital expenditure) came fromgeneral government, while a further 41% came from specialist producers (of environmental protection services, e.g. waste and water companies) and 35% from traditional industry (or business) sector that normally pursue environmental activities as ancillary to their main activities. At EU level, 37% comes from governments, 33% from specialist producers and 30% from industry (business).

the investment of financial partners such as the European Investment Bank (EIB) Group and others.

[182] European Commission, Horizon Europe.

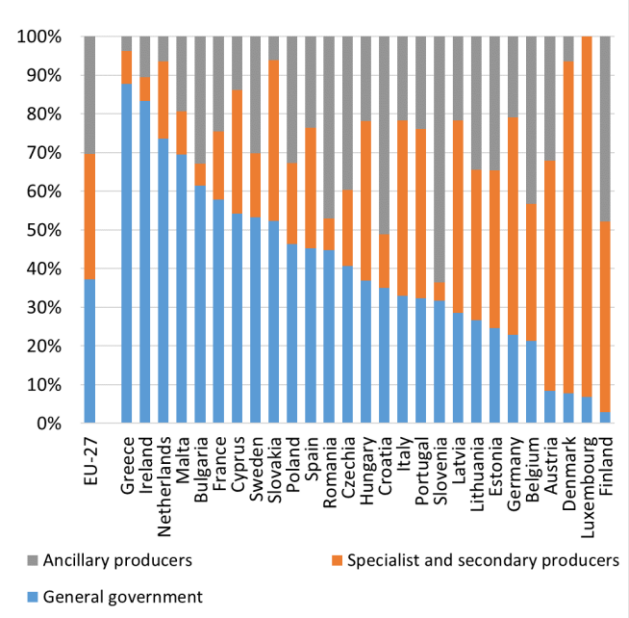
[183] European Commission, Connecting Europe Facility.

[184] European Union, InvestEU.

[185] At economy level, including final consumption, intermediate consumption and capital expenditure of households, corporations and governments related to environmental protection goods and services. It excludes EU funds, while may include some international expenditure beyond domestic. Data source: Environmental Protection Expenditure Accounts (EPEA), Eurostat. EPEA accounts are based on the CEPA 2000 classification, excluding climate, energy and circular economy.

[186] Eurostat, Environmental Protection Expenditure Account, 2021.

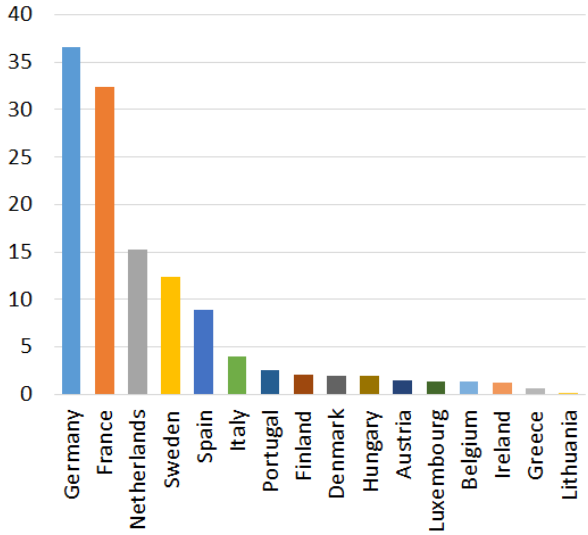
Figure 42: EU-27 Member States' environmental protection investments (Capex) by institutional sectors (Total economy = 100%), 2018[187]



The breakdown of investment by environmental topic is only partially available, at the level of institutional sectors (rather than at the level of economy), due to different reporting standards. At Estonia's general government level, 78% of the environmental protection investments went to the protection of water and soil, with 17% to R&D and 9% to biodiversity. With regard to the country's specialist producers, 39% of the relevant investments were in wastewater, 23% in waste mangement and 23% in biodiversity, 10% in water and soil protection and 4% in air protection. As regards the business sector, three quarters of the relevant investments went to the protection of air, followed by wastewater and waste management with 10% each.

In 2020, the total annual issuance of European green bonds (including some non-EU countries)[188] was EUR 137 billion[189], up from EUR 105 billion in 2019. Looking only at EU-27 Member States, green-bond issuance in 2020 was EUR 124 billion. In 2014-2020, 83% of the green bonds issued by European countries served objectives in energy, buildings or transport, while 8% supported water and waste, with a further 6% supporting sustainable land use, with links to ecosystem conservation and restoration. These data are based on the climate-bonds taxonomy, which is broadly similar to the EU Taxonomy[190].

Figure 43: Annual EU green bond issuance in 2020 (EUR billion)[191]



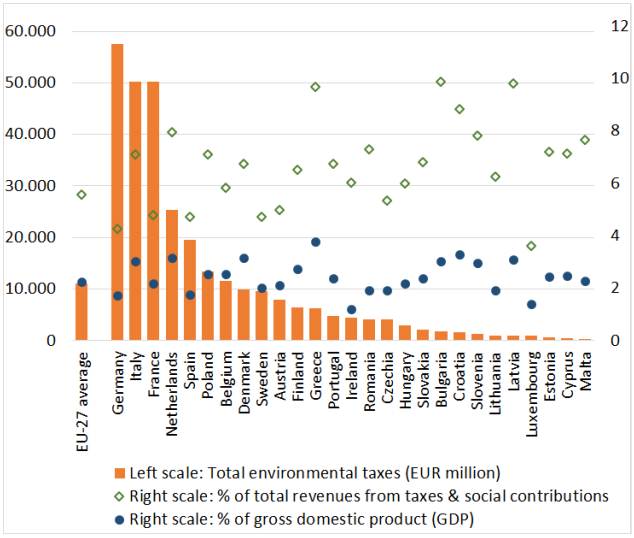
Green budget tools

Green taxation and tax reform

Estonia's revenue from environmentally-related taxes in 2020 was EUR 657.4 million, as shown in Figure 44, slightly above the EU-average. Within this, energy taxation represents the highest share with 91.5% in 2020. Pollution/resources tax is high, 6.8%, almost double the EU average. On the other hand, transport tax is extremely low, only 1.7%, compared to 19% at EU level, which may not provide real incentivisation for greener vehicules.

[187] Eurostat, Environmental Protection Expenditure Accounts (env_epe).
[188] Green bonds were created to fund projects that have positive environmental and/or climate benefits. The majority of green bonds issued are green "use of proceeds" or asset-linked bonds. The very first green bond was issued in 2007 with the AAA-rated issuance from multilateral institutions, the European Investment Bank (EIB) and the World Bank.
[189] At Eurostat's annual average EUR/USD exchange rates.
[190] Interactive Data Platform at www.climatebonds.net. Further information on Climate Bonds Taxonomy: https://www.climatebonds.net/standard/taxonomy
[191] Climate Bonds Initiative, 2022.

Figure 44: Environmental taxes in the EU27, 2020[192]



The 2019 European Green Deal underlines that well-designed tax reforms can boost economic growth and resilience, foster a fairer society, and promote a just transition. Tax reforms can contribute to this by sending the right price signals and incentives to economic actors. The Green Deal creates the context for broad-based tax reforms, the removal of fossil-fuel subsidies, and a shift in the tax burden from labour to pollution, while simultaneously taking account of social considerations[193]. The Green Deal promotes the 'polluter pays principle',[194] which stipulates that polluters should bear the cost of measures to prevent, control and remedy pollution. The polluter-pays principle is facilitated by the European Commission's Technical Support Instrument (TSI) project on greening taxes.

According to a Commission's study on green taxation and other economic instruments (2021), Estonia could introduce a fertiliser levy and a 'pay-as-you-throw' scheme to further address particular areas of environmental concern195. New vehicles purchased in Estonia are the most environmentally unfriendly in the EU, with average CO2 emissions of 132 grams per kilometre compared to the EU average of 118.5 grams in 2017. There are no registration or annual vehichle taxes on motor vehicles in Estonia, besides the heavy goods vehicle tax which is imposed on lorries with a registered or full weight of 12 tonnes and more. The 2030 Estonian National Energy and Climate Action Plan recommends introducing a congestion charge for the capital city and more environmentally motivated parking fees at municipal level.

Environmentally-harmful subsidies

Addressing and removing environmentally harmful subsidies is a further step towards wider fiscal reforms[196] [197].

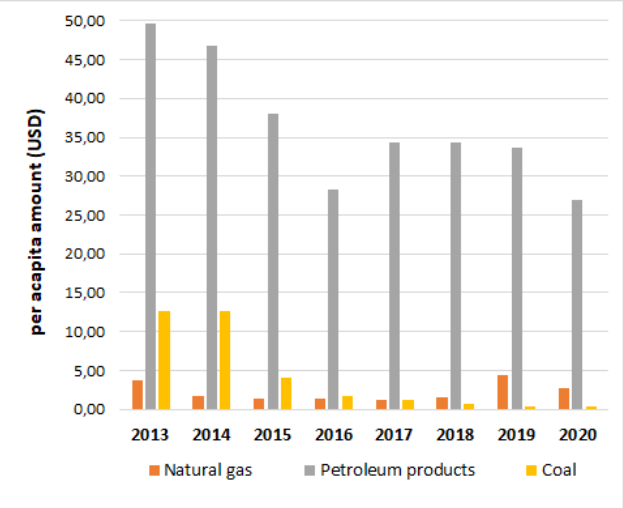
Fossil-fuel subsidies are costly for public budgets, and make it difficult to achieve the Green Deal objectives. In many cases, these subsidies also counteract incentives for green investments. Annual fossil-fuel subsidies have been around EUR 55 billion in the EU since 2015. They rose by 4% between 2015 and 2019, although some countries (such as Latvia, Lithuania, Sweden, Greece and Ireland) managed to decrease them in this period. In the EU, subsidies for petroleum products in sectors such as transport and agriculture continued to increase in 2015-2019. However, subsidies for coal and lignite decreased, due to the diminishing role of solid fuels in electricity generation. As a share of GDP, fossil-fuel subsidies ranged from 1.2% in Hungary to less than 0.1% in Malta in 2019 (with an EU average of 0.4%).

In Estonia, the total fossil fuel subsidies corresponded to 0.16 % of GDP, less than half of the EU average. In 2020, the EU27's total amount of fossil fuel subsidies decreased to EUR 52 billion (due to falling consumption trends amid the COVID-19-related restrictions). Without Member State actions, these subsidies are likely to rebound as economic activity picks up from 2020.

Further details on fossil fuel subsidies in Estonia are shown below. Fossil fuel subsidies decreased over the past decade, mainly because subsidies for coal used by households ended. However, a new limited subsidy for peat has been put in place and EUR 33 million are still spent on supporting petrol and diesel.

[192] Eurostat, Environmental taxes accounts (env_eta).
[193] COM (2019/640 final), p.17.
[194] Article 191(2) of the Treaty on the Functioning of the European Union: "Union policy on the environment (…) shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay".
[195] European Commission, Green taxation and other economic instruments, 2021.
[197] European Commission, Study on assessing the environmental fiscal reform potential for the EU28, January 2016 –Study

Figure 45: Trends in natural gas, petroleum products and coal subsidies in Estonia[198]



% GDP	2013	2014	2015	2016	2017	2018	2019	2020
Natural gas	0,02	0,01	0,01	0,01	0,01	0,01	0,02	0,01
Petroleum products	0,26	0,23	0,22	0,15	0,17	0,15	0,14	0,12
Coal	0,07	0,06	0,02	0,01	0,01	0,00	0,00	0,00

Green budgeting practices

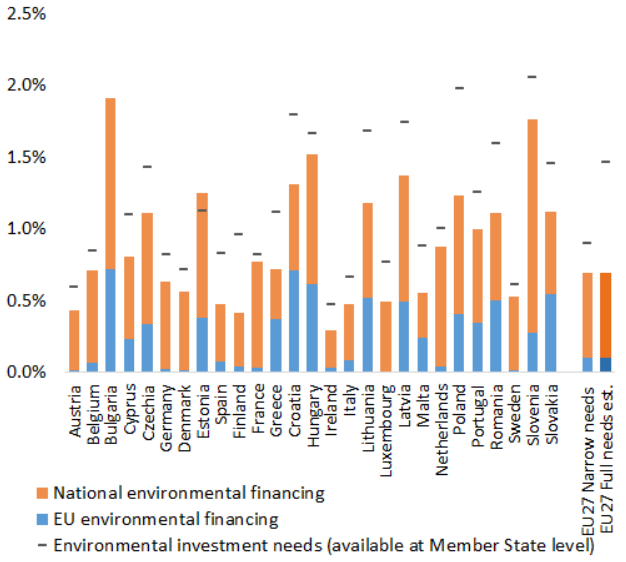
'Green budgeting' encompasses various climate and environmental tagging and tracking practices in budgets. Some EU Member States already use certain green-budgeting practices[199]. Green budgeting helps identify and track green expenditure and green revenues to increase transparency on the environmental implications of budgetary policies. This is aimed at improving policy coherence and supporting green policies (including climate and environmental objectives)[200].

The Commission has also drawn up climate-proofing and sustainability-proofing guidance as tools to assess project eligibility and a project's compliance with environmental legislation and criteria[201]. The Commission developed a green-budgeting reference framework[202] and launched a TSI project on green budgeting in 2021 to help Member States develop national green-budgeting frameworks to improve policy coherence and the green transition. Estonia participates in the Commission's green-budgeting TSI, which started in 2021.

Overall financing compared to the needs

The overall environmental financing for investments in 2014-2020 in the EU is estimated to have been equivalent to 0.6-0.7% of GDP, taking into account major EU funds and national financing. It ranged from 0.3% (Ireland) to 1.91% (Bulgaria), linked to the level of environmental challenges in Member States. Overall the EU environmental investment needs in 2021-2017 are estimated to range between 0.9-1.5% of projected GDP (in 2021-2027), suggesting a potential environmental financing gap of 0.6-0.8% of GDP, with baseline financing levels assumed [203].

Figure 46: Total environmental financing baseline (2014-2020) and estimated needs (2020-2030) in the EU27 (% of GDP)[204]



Estonia's environmental financing for investments is estimated to have been 1.25% of GDP in 2014-2020, in with over two thirds relying on national sources. With that level maintained for 2021-2027, the bulk of environmental investment needs (1.13% of GDP, including needs with country-level breakdown) would be met, suggesting no

198 OECD, Fossil Fuel Subsidy Tracker.
199 European Commission, Green Budgeting Practices in the EU: A First Review, 2021.
200 European Commission, European Commission Green Budgeting Reference Framework. European Commission, Green Budgeting in the EU Key insights from the 2021 Commission survey.
201 European Commission, Technical guidance on sustainability proofing for the InvestEU Fund.
202 European Commission, Green Budgeting Reference Framework, based on the review of the OECD Paris Collaborative on the Green Budgeting initiative, 2017.
203 DG Environment data analysis. EU financing sources covered: ESI Funds (ERDF, CF, ESF, YEI, EAFRD, EMFF), Horizon 2020, LIFE, EFSI (EU amount), EIB loans. National financing: total national environmental protection capital expenditure (investments) - source: Eurostat EPEA dataset. Cut-off date for data: end 2021. N.B. The total financing may be higher, in particular through further indirect investments, requiring further analysis in the future.
204 Eurostat, ESI Funds Open Data, 2021.

major overall investment gap in that respect. Nevertheless, when also accounting for needs currently assessed only at EU-level (water protection, circularity, biodiversity strategy etc.), additional environmental investment needs may be triggered that will require adequate financing.

6. 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;
(iii) access to justice in environmental matters.
It is of crucial importance to public authorities, the public and businesses that environmental information is shared efficiently and effectively[205]. 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[206]. It includes the right to bring legal challenges ('legal standing')[207].

Environmental information

Estonia's implementation of the INSPIRE Directive is good. Its performance has been reviewed based on the 2021 country fiche[208]. Good progress has been made on data identification and documentation;implementation levels are good. However, more efforts are needed to:

- (i) make the data more widely accessible, and
- (ii) prioritise environmental datasets in implementation, especially those identified as high-value spatial datasets for implementing environmental legislation[209].

Table 4: Country dashboard on the implementation of the INSPIRE Directive, 2016-2020[210]

	2016	2020	Legend
Effective coordination and data sharing			Implementation of this provision is well advanced or (nearly) completed. Outstanding issues are minor and can be addressed easily. Percentage: >89%
Ensure effective coordination	🟨	🟨	
Data sharing without obstacles	🟨	🟩	Implementation of this provision has started and made some or substantial progress but is still not close to being complete. Percentage: 31–89%
INSPIRE performance indicators			
i. Conformity of metadata	🟩	🟩	Implementation of this provision is falling significantly behind. Serious efforts are necessary to close implementation gap. Percentage: <31%
ii. Conformity of spatial data sets[211]	🟨	🟩	
iii. Accessibility of spatial data sets through view and download services	🟨	🟨	
iv. Conformity of network services	🟨	🟨	

Public Participation

The Environmental Board has a special section on its website explaining opportunities to participate in EIA processes, with links to relevant databases and sources of information[212]. Notifications on public participation opportunities are published in the official publication *Ametlikud Teadaanded*, available online[213]. This database is unlikely to be used by members of the public as a regular

[205] The Aarhus Convention, the Access to Environmental Information Directive (Directive 2003/4/EC) and the INSPIRE Directive(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 the INSPIRE Directive's implementation.
[206] These guarantees are explained in the Commission Notice on access to justice in environmental matters, OJL 275, 18.8.2017 and a related Citizen's Guide.
[207] This EIR focuses on the means implemented by Member States to guarantee rights of access to justice, legal standing and to overcome other major barriers to bringing cases on nature and air pollution.
[208] https://inspire.ec.europa.eu/INSPIRE-in-your-Country/EE.
[209] European Commission, List of high value spatial data sets.
[210] INSPIRE knowledge base, 2021.
[211] In 2016, the deadlines for implementation of the spatial data interoperability were still in the future: 23.11.2017 for Annex I data and 2110.2020 for Annex II and III data. It must be also considered that this conformity indicator will in many cases never reach 100% conformity as the majority of the countries provide as-is-data sets in addition to the INSPIRE harmonised data sets.
[212] https://keskkonnaamet.ee/keskkonnateadlikkus-avalikustamised/raagi-kaasa
[213] https://www.ametlikudteadaanded.ee/eng/index

source of information; however, it does provide an option to subscribe to notifications, which can be narrowed in range to include only e.g. environmental impact assessments, or further narrowed by geographical area.

EIA and SEA procedures are carried out by many different authorities (municipalities, the Environmental Board, the Transport Board, Consumer Protection and Technical Regulatory Authority etc.), and there are no publicly available data on overall levels of participation and access to information in these procedures. However, a biannual study on environmental awareness in Estonia organized by the Ministry of Environment has in recent years also studied people's awareness and attitudes towards environmental decision-making[214]. According to the latest report (2020), 40% of respondents considered participation in environmental decision-making important. However, only 6% of respondents had participated in public hearings within the last two years (as a comparison, 11% had participated in environmental discussions in social media). Respondents rated their ability to participate in environmental decision-making at municipal level higher than at national level. On both levels the general outlook was pessimistic, with only 13% and 5% respectively assessing the ability to participate are good, and 66% and 71% respectively believing that access was restricted or lacking.

Access to justice

No interest needs to be proven for an NGO to have a standing in an environmental court case, but cases which have significant effects on the environment are interpreted narrowly. For plans and programmes that are considered administrative acts, i.e. which create, terminate or change the individual rights of any person, standing is awarded to those persons whose individual subjective rights have been breached (breach of rights is presumed for environmental NGOs). Plans and programmes may also be considered to be administrative acts only in part. Plans and programmes that are not administrative acts do not have a direct effect on anyone's rights. Such plans and programmes cannot be challenged. Challenging omissions to adopt a plan or programme that is an administrative act follows a different logic. In such cases, the standing is firstly dependent on whether the omission could have breached a subjective right – this may also be theoretically relevant as regards those plans and programmes which are not administrative acts. Secondly, standing would be dependent on whether the authority had a clear obligation to act (or act in a certain manner). There is a system of regular supervision of regulatory legally binding acts but it is hardly accessible for the members of the public and NGOs, they can only alert the attention of those bodies or officials who are entitled to initiate an extraordinary supervision procedure.

Easy-to-read information on how to access judicial review procedures in administrative matters (including environmental matters) is available on the web page of Estonian Courts.

In 2019, a priority action was addressed to Estonia to better inform the public; it can be concluded that there has been substantial progress made in this regard.

2022 priority actions

- Make spatial data more widely accessible and prioritise environmental datasets in the implementation of the INSPIRE Directive, especially those identified as high-value spatial datasets for implementing environmental legislation.
- Continue the good practice of measuring attitudes towards environmental decision-making, and address barriers to participation identified.
- Consider further steps to bring together information on EIA and SEA processes in a single place, and to report on overall levels of public participation.
- Improve access to courts by the public concerned when it comes to challenging administrative or regulatory decisions, in particular, under the areas of planning related to water, nature and air quality.

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[215].
It includes support measures provided by the authorities such as:
(i) compliance promotion[216];
(ii) inspections and other checks that they carry out, i.e. compliance monitoring[217]
(iii)the steps that they take to stop breaches, impose sanctions and require damage to be remedied, i.e. enforcement[218].

[214] Studies going back to 2008 are available at: https://envir.ee/kaasamine-keskkonnateadlikkus/keskkonnateadlikkus/uuringud

[215] 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.

[216] This EIR focuses on the help given to farmers to comply with nature and nitrates legislation.

[217] This EIR focuses on inspections of major industrial installations.

[218] This EIR focuses on the availability of enforcement data and co-ordination between authorities to tackle environmental crime.

Citizen science and complaints enable authorities to focus their efforts better. Environmental liability[219] ensures tat the polluter pays to remedy any damage.

Compliance promotion and monitoring

Government websites tend to provide general information on the nature directives and their implementation in Estonia, rather than information focused on how farmers and other land managers or duty holders can support implementation. In recent years NGOs have done extensive work on introducing the Natura 2000 network and its requirements to landowners under a LIFE project, NaturallyEst-LIFE[220] involving the Environmental Law Centre and the Estonian Fund for Nature. For nitrates, the picture is similar, with limited practical guidance; although the Fund for Advancement of Rural Life continues to offer an explanatory overview of the requirements in nitrate vulnerable zones, and links to other useful sites[221].

An inspection plan for the years 2021-2023 was adopted in 2021, but does not appear to be easily accessible to the public[222]. All inspection reports are available in the Environmental Board's electronic register of environmental permits[223]. The reports are comprehensive and, in addition to scientific data (results of measurements etc.), they usually contain a short overview of the findings (and instructions) of the inspector; but information on the follow-up to inspections is not readily available. The Environmental Board also publishes aggregate data on environmental monitoring, but it only includes data on infringements that have been detected (and not, for example, data on how many on-site inspections were carried out)[224]. The data are aggregated by both subject areas (defined according to the specific acts) and counties. A more in-depth overview of the environmental monitoring results of the year 2019 can also be found in the yearbook of the Environmental Inspectorate[225].

Complaint handling and citizen science

The Environmental Inspectorate has been merged with the Environmental Board; the new authority is named the Environmental Board. Comprehensive information on when to report infringements or incidents is available on its website[226]. However, the hotline previously available for reporting incidents has been changed – such information should now be reported to the general state authority hotline number (1247). The environmental Board encourages reporting of environmental breaches, but NGOs have also shown their commitment[227]; examples include a campaign to encourage reporting of illegal felling in forests[228]. For example, the infringement procedure initiated in June 2021 against Estonia related to incorrect transposition and bad application of certain provisions of the Habitats Directive and the SEA Directive in connection with forest logging and forest management in Natura 2000 is based on an NGO's complaint[229].

The most recent statistics on the number and content of complaints are from 2019[230]. In 2019, the hotline received 5019 complaints; however, the information provided is limited to the subject and number of complaints, with no information on the follow-up – how the information was used, whether it led to the identification of infringements, etc.

More generally, citizen science continues to be encouraged to some extent. The public portals for citizens science – LVA and eElurikkus – referred to in the 2019 EIR governance report are still actively used, although their main objective is to gather information on the state of the natural environment rather than to contribute to compliance monitoring and enforcement.

Enforcement

Statistics about environmental infringements are published on the website of the Environmental Board[231]; they include information about detected infringements, cases resolved (number and amounts of fines, etc.), and the environmental damage caused. They also provide data on the number of criminal proceedings commenced, but

[219] The Environmental Liability Directive, 2004/35, creates the framework.
[220] https://k6k.ee/looduskaitse
[221] https://www.pikk.ee/
[222] See https://adr.envir.ee/et/document.html?id=2af237a5-82c4-4f05-8571-58b1f172a8e0 for the entry in the Environment Board document registry.
[223] https://kotkas.envir.ee/annual_reports_registry
[224] https://keskkonnaamet.ee/jarelevalve-teavitamine-1247/jarelevalve/uuringud-statistika; statistical reports are presented as downloadable xlsx files.
[225] https://old.keskkonnaamet.ee/sites/default/files/kki_aastaraamat_2019_final.pdf
[226] https://keskkonnaamet.ee/jarelevalve-teavitamine-1247/teatamine/teata-rikkumisest-1247
[227] Inform us of breaches 1247 | Keskkonnaamet
[228] See https://www.eestimetsaabiks.ee/metsakaitsja-abc
[229] https://www.err.ee/1608309641/kaarel-relve-rikkumismenetlus-mida-riik-niisama-ara-siluda-ei-saa
[230] https://old.keskkonnaamet.ee/sites/default/files/kki_aastaraamat_2019_final.pdf
[231] https://keskkonnaamet.ee/jarelevalve-teavitamine-1247/jarelevalve/uuringud-statistika; statistical reports are presented as downloadable xlsx files.

show no information about the outcome of cases. The annual overview of crime statistics in Estonia compiled by the Ministry of Justice does not contain any information about environmental crimes[232].

The Environmental Board[233] and the Prosecutor's Office share responsibility for tackling environmental crimes. The Environmental Board conducts pre-trial criminal proceedings under the direction of the Prosecutor's Office; the Prosecutors' Office represents the State in courts. The Environmental Board also cooperates with other enforcement agencies such as the Police and Border Guard Board (based on a cooperation plan and joint inspections) and the Tax and Customs Board (on an ad hoc basis)[234]; information on these arrangements is not, however, available online.

In the 2020 annual report of the Prosecutor's Office stated that environmental crime must become a priority[235]. On 14 April 2020 the ministers for environment, justice, and the interior signed a joint declaration on prioritising the fight against environmental crime[236]; however, information on the implementation of this declaration is not available online.

Environmental Liability Directive

While there is no publicly-accessible registry of ELD cases, yearly overviews of environmental liability cases are available as separate documents on the Environmental Board website[237]. These documents include a description of the liability cases, the nature of the environmental damage, and a description of the prevention and/or remedial measures required. In 2020 there were four cases under the Environmental Liability Directive, and a total of 136 cases resulting in environmental damage.

Estonia's legislation transposing the ELD (Environmental Liability Act) does not require operators to have any specific type of securities to cover potential environmental damage. Most of the larger Estonian insurance companies exclude damage related to obligations arising under the Environmental Liability Act or the Directive (ELD) in the standard terms and conditions of the liability insurance they offer. A few insurance companies cover some damage related to environmental damages claims, such as the cost of removing pollution, and unforeseen environmental damage[238].

2022 priority actions

- Provide regular updates on progress on implementing the 2020 Joint Ministerial Declaration on tackling environmental crime.
- Actively encourage public reporting of environmental damage and infringements, and provide information on how those reports are used to improve compliance.
- Provide up-to-date information on incidents of environmental damage, including ELD through the registry or databases that are made accessible to the public.
- Improve the information available to farmers and other land managers on compliance with the Nature and Nitrates Directives.

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. about the intended benefits.

Administrative capacity and quality

Estonia's score in the 2020 Environmental Performance Index is 65.3. It ranks 30th out of 180[239]worldwide. At present, the number of complaints and pending infringements handled by the Commision against Estonia in the environmental field can be considered below the EU average.

According to the Digital Economy and Society Index (DESI) 2021 Estonia is a top performer in digital public services and scores 4th in e-government [240]in the EU. As to enterprises having green action through information and

[232] https://www.just.ee/kuritegevus-ja-selle-ennetus/kuritegevuse-statistika

[233] https://keskkonnaamet.ee/jarelevalve-teavitamine-1247/jarelevalve/keskkonnarikkumised

[234] Evaluation report on the eighth round of mutual evaluations 'The practical implementation and operation of European policies on preventing and combating Environmental Crime'. Report on Estonia.

[235] https://aastaraamat.prokuratuur.ee/prokuratuuri-aastaraamat-2020/keskkonnakuritegevus-uus-prioriteet-eesti-oiguspoliitikas

[236] https://envir.ee/uudised/kolm-ministrit-votsid-keskkonnakuritegevuse-luubi-alla
https://aastaraamat.prokuratuur.ee/prokuratuuri-aastaraamat-2020/keskkonnakuritegevus-uus-prioriteet-eesti-oiguspoliitikas

[237] https://keskkonnaamet.ee/media/1230/download (xlsx table; 2019-…); https://keskkonnaamet.ee/media/1228/download (xlsx table 2009-2018).

[238] https://www.salva24.ee/doc/vastutuskindlustuse_yldtingimused.pdf, https://www.iizi.ee/public/IIZI%20kinnisvara%20vastutuskindlustuse%20lisatingimuste%2017.09.2018%20v%C3%A4listused.pdf

[239] Yale Center for Environmental Law & Policy, 2020 Environmental Performance Index.

[240] DESI 2021

communication technologies (ICT) (% of enterprises), Estonia performs below average and needs to encourage enterprises to engage in more environmentally-friendly actions.

Coordination and integration

As already mentioned in the 2017 EIR, the transposition of the revised Environmental Impact Directive (EIA Directive)[241] provides an opportunity to streamline the regulatory framework on environmental assessments. Despite a delay in full transposition in relation to the deadline (May 2017), Estonia has transposed the revised Directive. On 25 July 2019, the Commission issued a letter of formal notice regarding the non-conformity of the Estonian national legislation with certain provisions of the EIA Directive, urging Estonia to bring its legislation fully in line with the requirements of the Directive.

The Commission encourages the streamlining of the environmental assessments to reduce duplication and avoid overlaps in environmental assessments applicable to projects. Moreover, streamlining helps to reduce unnecessary administrative burden and accelerates decision-making, provided it is done without compromising the quality of the environmental assessment procedure[242]. Estonia had introduced the streamlining of environmental assessments under the EIA and Habitats Directives prior to the revision of the EIA Directive. Coordinated procedures have been established for the EIA, Water Framework Directive and Industrial Emissions Directive.

A noteworthy example of good practice is the Single Environmental Permitting Platform that has been developed to operationalise the Single Environmental Permitting Regime, which simplifies, harmonises and clarifies many environmental permits.

Reforms through the Commission's Technical Support Instrument (TSI)

The Commission supports environmental implementation and the green transition, not only through the EU financing programmes, but also by granting technical assistance such as the Technical Support Instrument (TSI). The Commission's 2020 TSI supported two environment-related projects in Estonia: 'Estonian waste system analysis' (described in the section on waste, p.9) and 'Analyses and action plan towards sustainable water services in Estonia'. An additional project can be mentioned under the TSI 2019, namely 'Support for the Estonian Transport and Mobility Master Plan'. In 2021, the Commission supported one project, namely 'Development of a sustainable finance roadmap for Estonia'. In 2022, a request was approved to define the structural reforms needed for smart assessment of the effectiveness of protection of Estonian biodiversity.

TAIEX EIR peer-to-peer projects

The TAIEX EIR Peer-to-Peer tool[243] has been launched by the Commission to facilitate peer-to-peer learning between environmental authorities. During the reporting period, Estonia has been very involved in TAIEX EIR events. In 2019, Estonia participated in three TAIEXEIR Peer-2-Peer multi-country workshops: one on air pollution from household heating; one on the EU Timber Regulation for Nordic-Baltic competent authorities and one on life-cycle approach and circularity in policy and procurement planning. The first two were hosted by Estonia. The same year, it also benefited from an expert mission and a study visit in Sweden relating to waste management. In 2021, Estonia took part in two multicountry workshops: the first on ammonia-reducing technology and measures, and the second on zero pollution.

[241] Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

[242] The Commission issued a guidance document in 2016 regarding the setting up of coordinated and/or joint procedures that are simultaneously subject to assessments under the EIA Directive, Habitats Directive, Water Framework Directive, and the Industrial Emissions Directive, OJ C 273, 27.7.2016, p. 1.

[243] https://ec.europa.eu/environment/eir/p2p/index_en.html