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Environmental Implementation Review 2022

Country Report - AUSTRIA

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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Table of contents

EXECUTIVE SUMMARY	
PART I: THEMATIC AREAS	
1. CIRCULAR ECONOMY AND WASTE MANAGEMENT	
Measures towards a circular economy	
2. BIODIVERSITY AND NATURAL CAPITAL	Ç
Nature protection and restoration Ecosystem assessment and accounting	
3. ZERO POLLUTION	
Clean air Industrial emissions Major industrial accidents prevention – SEVESO Noise Water quality and management Chemicals	
4. CLIMATE ACTION	27
Key national climate policies and strategies Effort sharing target Key sectoral developments Use of revenues from the auctioning of EU ETS allowances	
PART II: ENABLING FRAMEWORK: IMPLEMENTATION TOOLS	30
5. FINANCING	30
Environmental investment needs in the EU EU environmental funding 2014-2020 EU environmental funding 2021-2027 National environmental protection expenditure Green budget tools Overall environmental financing compared to the needs	
6. Environmental Governance	39
Information, public participation and access to justice	
TAIFX FIR neer-to-neer	42

Executive summary

In previous Environmental Implementation Reviews (EIRs), the main challenges identified for Austria for the implementation of EU environmental policy and law were:

- ensuring better protection of Natura 2000 areas and reducing pressures on surface waters resulting from changes to the physical shape of rivers, and
- further improving air quality.

Austria remains one of the leading countries for waste treatment, with a recycling rate of 58.2 % in 2019. Its circular material use rate is still slightly below the EU average. . With 588 kg/capita Austria was significantly above the EU average of 502 kg/capita for municipal waste generation . The country has taken a number of initiatives, including legislation, to reduce waste generation, and has started work on a comprehensive cicular economy strategy covering the whole life cycle. However, in view of the ambitious post-2020 recycling targets, efforts needs to be continued to strengthen waste prevention, reuse, recycling and remanufacturing. Making better use of the potential of circularity in industry will help reduce resource dependency, in particular for fossil-fuel based raw materials.

On nature, the picture is mixed: Austria is the country with the highest share of ecological farming in the EU. Despite evident improvements in the level of conservation and restoration efforts over recent decades, the status of many habitats and species continued to deteriorate, which is of serious concern. While the share of habitats in good status has slightly improved, the share of habitats in bad status has also grown. The picture for species shows little change compared to the last reporting period. Austria's territorial coverage of Natura 2000 areas is below the EU average, and the coherence and quality of site-specific measures need further improvment. As regards the conservation status of forests, more than 75% of the assessments show a bad to poor status. Austria's national energy and climate plan implies an increase of bioenergy through sustainable forest management. In this context it will be important to ensure that biomass use is sustainable and that biodiversity is protected.

Water quality in Austria overall is good, and there is full compliance with urban waste water treatment rules. Pollution from nitrates in ground water and excess plant and algae growth due to high concentrations of nutrients (euthrophication) in f surface waters has decreased further, although hotspots remain in certain regions, especially in the agriculture-intensive areas. In Austria, 46.6 % of all surface water bodies reach good ecological status. Austria needs to continue to mitigate pressures resulting from changes to the physical shape of water bodies (hydromorphological pressures), through renaturalising the flow of rivers or removing obstacles to fish migration, especially in view of the further planned expansion of hydropower.

Air quality in Austria is generally good, although there are exceptions, for example, exceedances of ozone. For 2020, no exceedances above the EU air quality standards were registered for nitrogen dioxide and particulate matter or fine particulate matter. The current submission of air pollutant emission projections under the National Emission Reduction Commitments Directive demonstrate reaching emission reduction commitments for all pollutants apart from ammonia for 2020-2029 and for all pollutants apart from ammonia and nitrogen oxides for 2030 onwards. According to the latest inventory data submitted by Austria, which are still to be reviewed by the Commission, Austria is in compliance with the emission reduction commitments for all pollutants apart from ammonia in 2020.

Austria's recovery and resilience plan (RRP) devotes 59% of the plan's total allocation to measures that support climate and environmental objectives, measures on the circular economy to tackle problematic waste streams, as well as for the new national biodiversity fund, sustainable mobility and decarbonising businesses. Austria's overall financing for environmental investments is estimated to be around 0.44 % of GDP annually in 2014-2020, with over 90% coming from national financing.

Given the overall small allocation of EU funding compared to GDP, the main source of funds to deal with investment needs must come from national and private sources (with private sources already accounting for 60 % of the total) to close the investment gap in relation to Austria's environmental implementation priorities. In the 2021-2027 period, the country's environmental investment needs are estimated to reach over 0.60 % of GDP, suggesting an environmental financing gap of at least 0.16 % of GDP. This needs to be addressed by mobilising additional financing for environmental implementation priorities.

Part I: Thematic areas

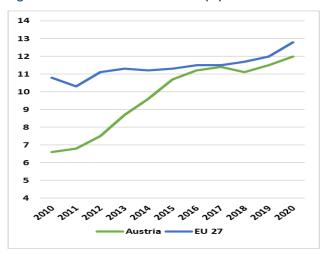
1. Circular economy and waste management

Measures towards a circular economy

The new circular weconomy 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 ction 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 between countries. To help achieve the EU circular economy action plan's goal of doubling the EU's circular material use rate by 2030, ambitious measures targeting the whole product life cycle are needed at Member State level. Such measures range from sustainable product design that make it possible to able to increase the durability, reparability, upgradability and recyclability of products, to other measures like : (i) 'remanufacturing'1; (ii) increasing circularity in production processes; (iii) recycling; (iv) boosting eco-innovation; (v) and increasing the uptake of green public procurement.remanufacturing, increasing the circularity in production processes, recycling, as well as boosting eco-innovation and increasing the uptake of green public procurement. .

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

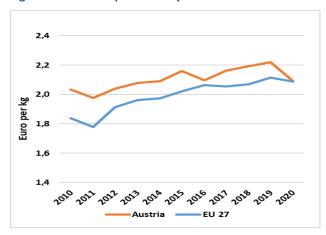


The circular (secondary) use of material in Austria rose to 12 % in 2020. Austria managed to lower the gap with the EU average of 12.8 %, but remains below it and far behind the leading leaders countries - Netherlands (30.9 %), Belgium (23 %), and France (22.2 %).

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

¹ Eurostat, <u>Circular Economy Monitoring Framework.</u>

Figure 2: Resource productivity 2010-2020²



Circular economy strategies

The Commission encourages Member States to adopt and implement national/regional circular economy strategies covering the whole life cycle of products, as 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 online European Circular Economy Stakeholder Platform in 2017³, national, regional or local authorities have used the platform to share their strategies and roadmaps.

Austria has not yet have a dedicated strategy or roadmap for the circular economy. However the current government programme does make a provision for a circular economy strategy, whose development started in spring 2021 through a series of expert workshops and a public stakeholder consultation process open the until end of January 20224. Generally, the circular economy has been given a more prominent role in the government's programme: it is mentioned as a key topic for a new location strategy supporting business development in rural areas, as well as a crosssectoral climate protection and circular economy strategy focusing on the energy and emissions intensive sectors (steel, chemicals, cement). The government's program also includes an action plan for microplastics. Austria has no sectoral strategies for plastics overall, nor for the textiles and construction sectors, although the new circular economy strategy may cover these sectors.

As mentioned in the 2019 EIR report, Austria also has the RESET2020 initiative, aiming to integrate resource efficiency in the areas of environmental technologies and sustainable production and consumption. This remains a key programme for promoting the circular economy. In 2020 the Green chemistry initiative 'Plattform Grüne Chemie' was launched. With its principles of design, efficient synthesis, the use of renewable raw materials, safe production, low toxicity chemicals and waste and recycling there is a strong connection to the circular economy.

As part of its RRP, Austria has committed to reforms to: (i) increase the reuse, collection and recycling rate of beverage packaging and containers; (ii) introduce effective take-back systems for single-use plastics and metal beverage packaging; and (iii) increase the supply of reusable beverage containers in the retail sector.

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.

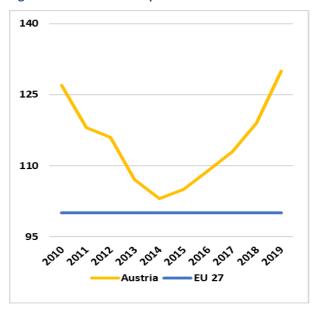
Austria's eco-innovation performance continues to improve. The country ranked third in the list of EU countries with a total score of 150 in the 2021 Eco-Innovation Scoreboard , resulting in an eco-innovation leader performance. In three out of five components of this eco-innovation index Austria performs above the EU average, namely eco-innovation activities, eco-innovation outputs and socio-economic outcomes. However, its performance is below the EU average regarding eco-innovation input and resource efficiency outcomes.

² Eurostat, Resource productivity

³ European Commission, <u>Circular Economy Stakeholder Platform</u>

⁴ Bundesministerium für Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie, <u>Circular Economy Strategy</u>.

Figure 3: Eco-innovation performance 2010-2019⁵



Green public procurement

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 reparability and recyclability standards. To date reporting to monitor the uptake of green public procurement (GPP) is voluntary.

A national strategy for sustainable public procurement has been in place in Austria since 2010, adopted by the Council of Ministers. It covers 16 product groups, which are partly based on the core criteria in the EU-toolkit⁶, and which are binding for the federal authorities. . The action plan for sustainable public procurement was updated in 2020, to reflect i.a. the EU plastics and farm to fork strategies. Monitoring through surveys has been regularly carried out at different levels. Automatic monitoring based on purchases, and in relation to the criteria for all product groups determined in the action plan is planned at federal level.

The number of EU Ecolabel products and EMAS-licensed⁷ organisations in a given country provides some indication of the extent to which the private sector and national stakeholders are actively engaged in the transition to a circular economy. It also shows how committed public authorities are to supporting instruments designed to promote the circular economy.

As of September 2021, Austria had 787 products out of 83 590, and 194 licences out of 2 057 registered in the EU Ecolabel scheme, a continuing low take-up of these licences⁸. As of October 2021, 268 organisations (covering 1 257 sites) from Austria were registered in EMAS⁹. Since 2019, there have been 19 fewer registrations of EU Ecolabel products and 22 fewer EMAS registrations, but there have been 8 more EU Ecolabel licences.

Overall, Austria has made significant progress in strengthening its circular economy policy framework, including through the development of a comprehensive circular economy strategy, currently under way.

2022 priority action

 Adopt the comprehensive circular economy strategy currently being developed covering the entire life cycle of products, with clear targets and a monitoring framework.

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 waste. This section focuses on the management of municipal

EU Ecolabel and the eco-Management and auditing scheme (EMAS)

⁵ Eurostat, <u>Eco-innovation index</u>

⁶ Bundesministerium für Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie, <u>naBe - Aktionsplan für eine nachhaltige</u> öffentliche Beschaffung

⁷ EMAS is the European Commission's Eco-Management and Audit Scheme, a programme to encourage organisations to behave in a more environmentally sustainable way.

European Commission, Ecolabel Facts and Figures.

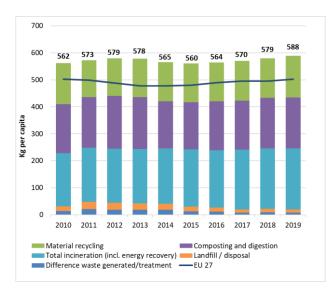
⁹ European Commission, <u>Eco-Management and Audit Scheme</u>, Nov. 2021.

waste¹⁰ 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 re-use are the most preferred options, and are therefore at the top of the waste hierarchy. The amount of municipal waste generated is one possible indicator of the effectiveness of waste prevention measures.

With 588 kg per capita Austria has the seventh highest rate of municipal waste generation in 2019, far above the EU average of 502 kg per capita. In addition, rather than decreasing, the amount has - albeit moderately increased over time. The steady increase in both GDP and population over the last decade, but Austria's economic growth is yet not decoupled from its generation of total waste¹¹. The waste prevention programme has not been sufficiently effective, as the measures in Austria's programme have not yet had a positive effect on waste generation. The plan also does not pay sufficient attention to food loss and waste at the primary production level and the early stages of the supply chain. More effective measures should be included in the new waste prevention programme, as Austria will need to significantly reduce its municipal waste generation rate.

Figure 4: Municipal waste by treatment in Austria, 2010-2019¹²



Austria is using EUR 130 million from the RRP for a measure to help prevent e-waste. Under the so-called 'repair-bonus' programme, households will receive a voucher, which coverS part of the costs for repairing or renewing electoral and electronic equipment. This is to incentivise the repair of electrical and electronic equipment. As another incentive to boost repairs, in 2020 Austria lowered its VAT rate on certain services (clothing, bicycles) using the possibility provided by the VAT Directive. Starting with 2025 there will be a deposit return system for beverage containers (cans and plastics).

Figure 4 also shows municipal waste by treatment, in terms of kilos per capita. Austria remains one of the best performers in the EU in waste management, but its good performance has stagnated over the past few years. Given the growing amount of waste, and increasing waste treatment there have been some small increases in recycling and composting rates, and incineration since the 2019 EIR report.

Austria has one of the highest waste management and recycling rates for municipal waste across Europe. In 2019, it recycled 58.2 % of its municipal waste, which represents the third highest recycling rate in Europe and is well above the EU 2020 municipal waste recycling target. To increase the collection rate for plastic packaging, and preparation for reuse and recycling, EUR 110 million from the RRP go to reverse vending machines, and upgrading plastics sorting capacity.

Figure 5: Recycling rate of municipal waste, 2010-2019¹³

¹⁰ 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).

¹¹ European Environment Agency - <u>Austria Waste Prevention Country Profile 2021</u>

¹² Eurostat, Municipal waste by waste operation, April 2022 (2020 data not yet available for Austria).

¹³ Eurostat, <u>Recycling rate of municipal rate</u>, April 2022 (2020 data not yet available for Austria).



As a result, the Commission's 2018 'early warning report'¹⁴ did not list Austria as one of the countries at risk of missing the EU 2020 target of recycling 50 % of municipal waste. The Commission is currently finalising its analysis of progress made on the recommendations from the 2018 reports as a well as an analysis of progress towards achieving the 2025 waste recyling targets. This report will be presented at the end of 2022and will assess progress made to date, and will make recommendations, as appropriate.

Implementation of the 2018 waste legislative package

By 5 July 2020, Member States had to bring their national laws in line with modifications in the revised Waste Framework Directive, the ¹⁵¹⁶Packaging and the Landfill Directive¹⁷. Austria has notified the transposition of the 2018 waste package¹⁴ to the Commission. A conformity assessment is now ongoing.

Waste management plans and waste prevention programmes are instrumental in effectively implementing the EU's waste legislation. They set out key provisions and investments to ensure compliance with existing and new legal requirements (e.g. waste

prevention, separate collection for a number of specific waste streams, recycling and landfill targets). Directive (EU) 2018/851 makes substantial amendments to the provisions of Directive 2008/98/EC which specified the content of waste management plans and waste prevention programmes. Adjustments to these plans and programmes are therefore necessary in order to bring them into line with Directive (EU) 2018/851. Revised plans and programmes were due by 5 July 2020.

Austria has not notified the Commission of its updated waste management plan and waste prevention programme. Work on updating the waste management plan and waste prevention programme is well under way and expected to be completed by 2022.

There has been some progress as regards new measures for prevention and reuse, in particular for plastics packaging and e-waste, but there has otherwise been limited progress since the 2019 EIR. In light of the upcoming 2022 Early Warning report the other priority actions are being made again, and a new action on the waste management plan/waste prevention programme has been added.

2022 priority actions

- Improve the functioning of extended producer responsibility systems by covering more waste streams.
- Shift reusable and recyclable waste away from incineration
- Ensure that a national waste management plan and waste prevention programme in line with the revised Waste Framework Directive are in place.

¹⁴ 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.

¹⁵ Directive 2008/98/EC

¹⁶ Directive 94/62/EC

¹⁷ 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.

In 2020 the Government started a broad public consultation called *Biodiversitätsdialog 2030* on a new biodiversity strategy. This will reflect the objectives of the EU 2030 biodiversity strategy, and identify targets and implementation measures to restore and protec biodiversity in settlement areas, agricultural landscapes, forests, bodies of water and wet habitats, mountain landscapes and special locations.

A new biodiversity fund has been set up tor finance nature protection and restoration measures. monitor biodiversity and raise awareness. It will receive a top-up of EUR 50 million from the RRP.

Nature protection and restoration

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 cornerstone of European legislation aimed at conserving the EU's wildlife¹⁸.

Natura 2000¹⁹, the largest co-ordinated 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 SACs²⁰; and (iii) the setting of conservation objectives and measures for the Natura 2000 sites.

Setting up a coherent network of Natura 2000 sites

Austria hosts 71 habitat types²¹ and 207 species²² covered by the Habitats Directive. The country also hosts populations of 90 bird taxa listed in the Birds Directive Annex L²³

By January 2022, 15.4 % of the of Austrian territory was covered by Natura 2000 (EU coverage 18.5 %), with special protection areas (SPAs) classified under the Birds Directive covering 12.3 % (EU coverage 12.8 %). Sites of community importance (SCIs) under the Habitats Directive covered 11.2 % of the country (EU coverage 14.2 %).

Despite significant progress in the number of sites proposed over the last 10 years, the ecological coherence of the Austrian Natura 2000 network remains questionable. Several key areas in the Alpine region do not have any site protection, despite carrying labels recognising their outstanding value as wetlands of international importance under the Ramsar Convention. The proportional coverage of many species and habitats (including priority habitats in bad conservation status) remains unsatisfactory. Many of the recently proposed Natura 2000 sites are too small

¹⁸ These should be strengthened by the Nature Restoration Law, according to the new EU biodiversity strategy.

¹⁹ 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. coverage figures do not add up due to the fact that some SCIs and SPAs overlap. Special Areas of Conservation (SACs) are SCIs designated by Member States.

²⁰ SCIs are designated under the Habitats Directive whereas SPAs are designated under the Birds Directive; figures of coverage do not add up since some SCIs and SPAs overlap. SACs are SCIs designated by the Member States.

²¹ EEA, Article 17 dashboard, Annex I total, 2019

²² EEA, <u>Article 17 dashboard</u>, 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.

²³ EEA, <u>Article 12 dashboard</u>, Annex I, 2020. This counting only takes into account birds taxa for which information was requested

and disconnected to be able to deliver sustainable conservation outcomes whereas others, that have long been recognised as sites of national and international importance for priority habitats or species, are still waiting to be proposed as SCIs.

Considering both Natura 2000 and other nationally designated protected areas, Austria legally protects 29 % of its terrestrial areas (EU-27 coverage 26,4 %)²⁴.

Figure 6: EU-27 terrestrial protected area coverage 2021²⁵

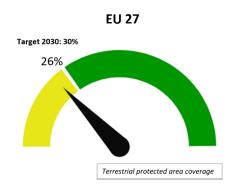
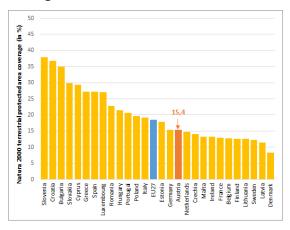


Figure 7: Natura 2000 terrestrial protected area coverage 2021²⁶



Designating special areas of conservation (SACs) and setting conservation objectives and measures

As competence for nature conservation is devolved to the Länder, Austria does not have a unified approach to setting site-level conservation objectives and measures.

²⁴ Eurostat, <u>Protected Areas</u>, terrestrial protected area percentage (2021) March 2022. Given the lack of coherence in the way the Länder publicise their information about SAC designations, conservation objectives and conservation measures, it is currently not possible to provide reliable statistics on the quality and completeness of conservation objectives and measures. Generally speaking however, given the general absence of clear site-specific objectives for restoring species and habitats in unfavourable conservation status, the current site-specific objectives (and therefore also, presumably, the conservation measures) cannot be considered to be in compliance with the requirements of the Habitats Directive.

Compliance would require the full consideration of the Article 17 conservation status assessments in setting site-specific conservation objectives and a coherent approach to all sites in a given biogeographical region, so as to ensure that the Natura 2000 network would facilitates the recovery of favourable conservation status for all relevant species and habitats currently reported by Austria as being in bad conservation status.

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.

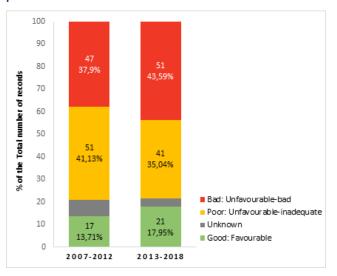
According to the most recent reporting by Austria (2019) and despite evident improvements in the level of conservation and restoration efforts over recent decades, the status of many habitats and species continued to deteriorate over the last 6-year reporting period, in particular in the Continental biogeographical region. Thee has been a negative trend for most species protected under the Habitats Directive. Populations of bird species listed in Annex I of the Birds Directive mostly appear to be faring better than Habitats Directive species, but some species have decreased in numbers or have become extinct recently (e.g. Ortolan and Roller). Many populations of common farmland bird species have declined.

According to the most recent report on Article 17 of the Habitats Directive, covering 2013-2018, 18 % of habitats are classed as having a favourable status, 35 % a poor status, and 44 % a bad status. As in the previous reporting period, habitats in the Alpine biogeographical region were found to be faring better than those in the Continental region.

²⁵ <u>EU Biodiversity Strategy Dashboard</u>, indicators A1.1.1 and A1.2.1, February 2022.

²⁶ European Environment Agency, <u>Natura 2000 Barometer</u>, February 2022.

Figure 8: Assessments on conservation status for habitats for 2007-2012 and 2013-2018 reporting periods 27



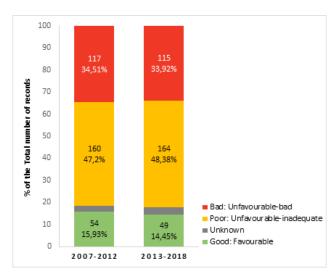
The groups of habitat types of particular concern are: (i) bogs and fens; (ii) floodplain forests; (iii) rivers and other freshwater habitats; (iv) the priority habitats Pannonic inland dunes, Pannonic salt steppes and salt marshes. None of these have favourable status in either the Continental or Alpine biogeographical regions.

The biggest decline has been reported for biodiversityrich habitat types within the agricultural landscape, in particular extensively managed grasslands such as meadows, mountain pastures, dry calcareous grasslands and steppic grasslands. Only two grasslands habitats had a favourable status in the Alpine region, and none did in the Continental regions. 48% of assessments of grasslands were reported as bad. Improvement in the status for grasslands seems unlikely to be achieved, land abandonment, intensifcation atmospheric nitrogen deposition are reduced.

The only habitat types found to be generally in favourable condition are rocky habitats and heath and scrubs.

The picture for species is similar to that for habitats. It shows little change compared to the last reporting period, and ahigh proportion of species in unfavourable status continued to decline over the past 12 years.

Figure 9: Assessments on conservation status for species for 2007-2012 and 2013-2018 reporting periods²⁸



The most recent Article-12 Birds Directive reporting data indicate that Annex I bird populations appear to be faring better than Habitats Directive species. About 74 % of bird species have increasing, stable or fluctuating breeding population trends.

In 2019, Austria received a priority action on defining conservation objectives and measures for designated sites. Given limited progress on this and in view of in view of the findings of the fourth report on the state of nature in the EU, the following priority actions are proposed:

Bringing nature back to agricultural land and restoring soil ecosystems

Agricultural land

The biodiversity strategy works alongside 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:

- \cdot a 50% reduction in the overall use of and risk from chemical pesticides;
- a 50% reduction in the use of more hazardous pesticides;
- a 50% reduction in losses of nutrients from fertilisers while ensuring there is no deterioration of soil fertility (which will result in a 20% reduction in the use of

²⁷ Note: the figures shown for 2007-2012 and 2013-2018 are not necessarily directly comparable because changes in the Member State's conservation status may result from changes of methods or to better data rather than reflecting genuine changes.

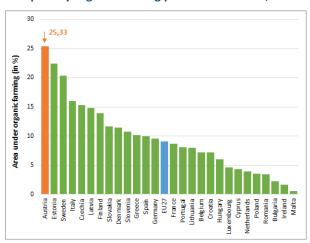
²⁸ idem..

fertilisers);

- bring back at least 10% of agricultural area under highdiversity landscape features and increase areas under organic farming to at least 25%

With an estimated 25.33 % of area under organic farming, Austria is the leading country in the EU in this respect, as it is far above the EU average of 9.07 %. (2020 data, Eurostat).

Figure 10: Share of total utilised agricultural area occupied by organic farming per Member State, 2020²⁹



Good topographical conditions with rich biodiversity resources lay down the foundation for maintaining high biodiversity through extensive farming. However, the status of biodiversity in terms of bird indicators and habitats conservation show a downward trend³⁰. The Austrian Farmland Bird Index has shown a steady decline in many common farmland bird species over recent decades. On cropland habitats and species are increasingly endangered due to intensification and the trend towards more vegetable and maize cultivation, and less cereal cultivation ³¹.

In the 2014-2020 programming period, 77 local action groups were set up under the LEADER programme to advance the bottom-up approach engaging local actors in developing their rural areas. This approach is very well perceived in Austria, achieves great results and is considered necessary to be continued. Under the Austrian rural development programmes, 5 % of Austria's rural development programme (EAFRD)

envelope were allocated to the implementation of LEADER.

Soil ecosystems

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 artificialised³². The net land taken (land 'taken' means land that is sealed or artificialised) per year in 2012-2018 can be seen as a measure of one significant pressure on nature and biodiversity – land use change. At the same time, land use change constitutes an environmental pressure on people living in urbanised areas.

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 2012-2018²⁴. The concept of 'net land take' combines land take with the return of land to nonartificial 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.

Austria ranks above³³ the EU average with net land take rate of 132.5m²/km² (EU-27 average: 83.8 m²/km²).

Land-take and soil sealing are among the biggest environmental pressures in Austria given its topography. According to national figures (Statistics Austria 2020), surface sealing grew significantly faster than the Austrian population in the observation period 2001–2019. In 2019 land-take was 44 km²/year; Austria loses 0.5 % of its agriculatural land every year, and has

²⁰

https://ec.europa.eu/eurostat/databrowser/view/sdg 02 40/default/table?lang=en (Eurostat, a Area under organic farming February 2022). Please note that for Austria, the data is for 2019 as no data was avalaible for 2020.

³⁰ SWD(2020) 367 final

³¹ Teufelbauer and Seaman, 2019

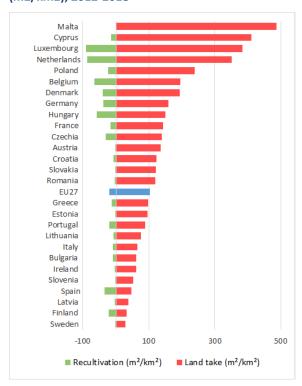
³² Artificial land cover is defined as the total of: roofed built-up areas (including buildings and greenhouses), artificial non-built-up areas (including sealed area features, such as yards, farmyards, cemeteries, car parking areas etc. and linear features, such as streets, roads, railways, runways, 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).

 $^{^{\}rm 33}$ European Environment Agency - $\underline{\text{Land take in Europe}}$

one of the highest per capita numbers in Europe of road kilometres and supermarket surface.³⁴ More effective multi-level governance on planning, mobility and housing development could help tackle these problems.

A new national soil strategy is under development, with the headline target of limiting land use to a net 2.5 ha/day by 2030, and included as a reform in the recovery and resilience plan.

Figure 11: Land take and re-cultivation in the EU27 (m2/km2), 2012-2018³⁵



Austria has not yet committed to setting land degradation neutrality targets under the United Nations Convention on Combating and Desertification (UNCCD).³⁶

Forests and timber

The EU forest strategy for 2030, adopted in July 2021, is a 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.

³⁴ <u>Umweltbundesamt</u>, 2020

Forests are important carbon sinks and conserving them is vital if the EU is to achieve climate neutrality by 2050.

Of the 27 % of EU forest area protected under the Habitats Directive, less than 15% of assessments show a favourable conservation status²⁷. Bad conservation status increased from 27 % to 31 % in the EU compared to 2015.³⁷

In Austria, forests cover 44.7 % or 3 722 680 ha of the territory.³⁸ More than 75 % of the assessments in Austria show a bad to poor status.³⁹ 63 000 ha in Austria is covered by primary forests.⁴⁰

Forest habitat types in the Continental biogeographical region are subject to high pressures from forestry, whereas significant areas of forest in the Alps are subject to little or no forest management (hence 22 % were reported as having a favourable status). It is positive that the forest area is growing as is the share of broad-leaved tree species in managed forests. The proportion of deadwood, a resource particularly important for many species of animals and fungi, is around 6.2 % (target value is 10 %) There is uneven distribution of deadwood in Austrian forests, with little deadwood in commercial forests, and high levels in protected forests, with most in alpine areas.⁴¹

Although forest coverage is increasing there is strong pressure on forested areas. In view of the expected demand increase for biomass for energy generation due to, among othere things, the phase-out of oil/gas heating systems, sustainable biomass production and use in line with the sustainability criteria of Directive 2018/2001/EU needs to be ensured.

In view of the more frequent occurrence of extreme weather conditions due to climate change, forest ecosystems need to be made more resilient. Forests should be supported to adapt to climate change through measures such as planting more diverse and site-adapted tree species as part of sustainable forest management to achieve a high level of carbon dioxide (CO₂) binding, making forests less vulnerable to pests (such as spruce beetles) and diseases and other impacts of climate change.

³⁵ European Environment Agency, <u>Land-take assessment</u>.

³⁶ UN Convention to Combat Desertification, <u>LDN Target Setting Programme.</u>

³⁷ European Environment Agency, State of Nature in the EU.

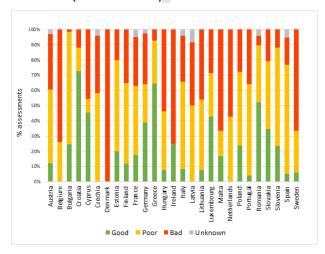
³⁸ European Environment Agency, <u>Forest information system for</u> Europe.

³⁹ COM SWD (2021) 652.

⁴⁰ European Copmmission, JRC, <u>Mapping and assessment of primary and old-growth forests in Europe</u>, p. 13.

⁴¹ Enzenhofer and Schrank, 2019

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 in case of 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.

Between March 2017 and February 2019^{44,} Austria carried out 894 checks on domestic timber operators. It also carried out 29 checks on operators importing timber. It is estimated that Austria had 140 000 operators placing domestic and 7 000 operators placing imported timber types onto the internal market over the reporting period.

The new Deforestation Regulation⁴⁵ 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

Inavise alien species (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 invasive alien species and decrease the number of 'red list' species they threaten by 50%.

The core of Regulation (EU) 1143/2014 on IAS⁴⁶ ('the IAS Regulation') is the list of 'invasive alien species of Union concern'. The total number of IAS of Union concern is currently 66, of which: 30 are animal species; 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 report⁴⁷ on the review of the application of the IAS Regulation, progress was being made towards certain objectives, such as creating a coherent framework for addressing IAS at EU level and increasing awareness of the problem of IAS. The report also identified some challenges and areas for improvement. However, given that implementation deadlines for the IAS Regulation were staggered from July 2016 to July 2019, it is still too early to draw conclusions on several aspects of implementation.

A 2021 report⁴⁸ on the baseline distribution shows that from the 66 species on the Union list, 28 have been observed in the environment in Austria. The spread can be checked in the figure below.

Figure 13: Number of invasive alien species of EU concern, based on available georeferenced information for Austria, 2021

⁴² European Environment Agency, <u>Conservation status and trend in conservation status by habitat group - forests</u>, January 2022.

⁴³ Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010.

⁴⁴ COM(2020) 629

⁴⁵COM(2021) 706

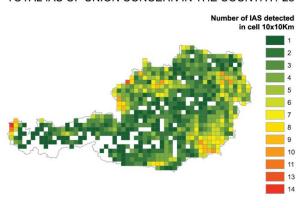
Regulation (EU) No 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species.

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.



TOTAL IAS OF UNION CONCERN IN THE COUNTRY: 28



https://easin.jrc.ec.europa.eu

2022 priority actions

- Improve the quality, completeness and ambition level of site-specific conservation objectives and measures, including management plans, for species and habitats in Natura 2000 sites;
- Improve the conservation of extensively managed grasslands and increase the share of grasslands that is managed for conservation purposes (in particular seminatural grassland habitats listed in Annex I and habitats for meadow bird species)
- Restore river and floodplain habitats and improve river connectivity
- Further improve the ecological condition of forests, in particular in terms of increasing the amount of deadwood and old trees.

Ecosystem assessment and accounting

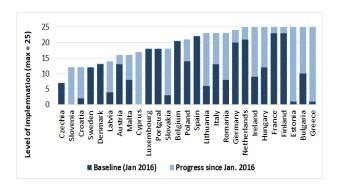
The EU biodiversity strategy for 2030 calls on Member States to better integrate biodiversity considerations into public and business decision making at all levels and to develop natural capital accounting. The EU needs a better-performing biodiversity-observation network and more consistent reporting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

Ecosystem assessment-related activities in Austria focused on the development of biodiversity indicators. The aim was to assess the condition and importance of biological diversity in Austria, to describe ecosystem services in a common language and to depict possible conflicts. The Austrian Environment Agency carried out a nation- wide mapping of ecosystems based on the EUNIS classification.

At the European level, Austria's activities included the participation in mapping of ecosystems and their

services in the EU and its Member States (MESEU) and making contributions, e.g. to the creation of the map of European ecosystem types based on the EUNIS classification and ecosystem assessment as part of ETC/SIA, the European topic centre for spatial information and analysis. Further activities are planned. Austria has provided updated information and progress has been made since January 2016. This assessment is based on 27 implementation questions and updated every six months.

Figure 14: ESMERALDA MAES Barometer (January 2016 - March 2021)⁴⁹



Progress on ecosystem accounting implementation is assessed at national level based on 13 questions (see Figure 14).

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.

⁴⁹ European Commission, Joint Research Centre, Publication Office, EU Ecosystem assessment: summary for policymakers, page 80, May 2021.

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%.

The EU has developed a comprehensive suite of clean-air legislation, which sets health-based air quality standards⁵⁰ and emissions reduction commitments⁵¹ by Member State for a number of air pollutants.

Air quality in Austria is generally good with exception of, for example, exceedances of ozone and benzo(a)pyrene.

The latest available annual estimates (for 2019) by the European Environment Agency⁵² indicate about 5 200 premature deaths (or 53 700 years of life lost (YLL)) attributable to fine particulate matter concentrations⁵³, 360 (3 900 YLL) to ozone concentrations⁵⁴ and 550 (5 700 YLL) to nitrogen dioxide concentrations⁵⁵⁵⁶.

The emissions of key air pollutants have decreased significantly in Austria in recent years, while GDP growth continued (see graph). According to the latest projections submitted under Article 10(2) of the National Emission Reduction Commitments Directive (NECD)⁵⁷, Austria projects to reach emission reduction commitments for SO₂, NO_x, PM_{2.5} and NMVOC for the period 2020 to 2029

and for 2030 onwards. The projections however do not demonstrate reaching the emission reduction commitments for NH $_3$ for 2020-2029 and the emission reduction commitments for NH $_3$ and NO $_x$ for 2030 onwards.

According to the latest inventory data submitted by Austria, which are still to be reviewed by the Commission, Austria is in compliance with the emission reduction commitments for all pollutants in 2020 with the exception of NH₃ in 2020.

Austria submitted its national air pollution control programme on 31 July 2019.

⁵⁰ European Commission, 2016. Air quality standards.

⁵¹ European Commission, <u>Reduction of national emissions</u>

⁵² <u>European Environment Agency, Air quality in Europe –2021 report</u> Please see details in this report of the underpinning methodology, p.106.

⁵³ 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.

⁵⁴ Low-level ozone is produced by photochemical action on pollution.

 $^{^{55}}$ NOx is emitted during fuel combustion e.g. from industrial facilities and the road transport sector. NOx is a group of gases comprising nitrogen monoxide (NO) and nitrogen dioxide (NO₂).

⁵⁶ Please note that these figures refer to the impacts of individual pollutants, and to avoid double-counting cannot be added up to derive a sum.

^{57 &}lt;u>Directive 2016/2284/EU</u>

Figure 15: Emission trends of main pollutants/ GDP in Austria, 2005-2019⁵⁸

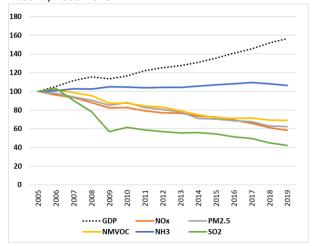
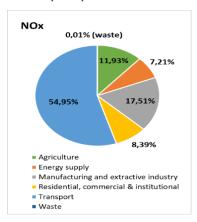
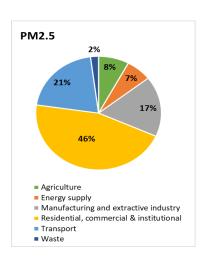


Figure 16: PM2.5 and NOx emissions by sector in Austria (2019)⁵⁹





⁵⁸ European Environment Agency.

For 2020, no levels exceeding the EU air quality standards were registered for nitrogen dioxide (NO_2) particulate matter (PM_{10}), or fine particulate matter ($PM_{2.5}$). 2020 was the year with the lowest ozone pollution of the last three decades, however, for several air quality zones the target values regarding ozone concentration have not been met.⁶⁰

Persistent breaches of air quality requirements, which have severe negative effects on health and environment, are being followed up by the European Commission through infringement procedures (mainly for PM_{10} and NO_2 exceedances) for all relevant Member States concerned, including Austria for exceedances of NO_2 limit values in several air quality zones. The aim is that appropriate measures are put in place to bring all air quality zones within the limit values.

Austria has not yet ratified the Gothenburg Protocol under the UNECE Air Convention.

In the 2019 EIR, Austria received four priority actions. The first and second related to taking specific actions under the national air pollution control programme (NAPCP) and the NECD; given the situation with regard to reaching ammonia reduction commitment remains unchanged, the priority action as regards the NAPCP is retained. The others addressed air quality standards, where Austria reported no more exceedences of EU limit values in 2020 for nitrogen oxides and particulate matter, but still for ozone.

2022 priority actions

- As part of the NAPCP, take action 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 reaching WHO guideline values in the future.
- Accelerate the ratification of the Gothenburg Protocol under the UNECE Air Convention.

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.

⁵⁹ European Environment Agency

⁶⁰ European Environment Agency, Eionet Central Data Repository

To achieve this, the EU takes an integrated approach to the prevention and control of routine and accidental industrial emissions. The cornerstone of the policy is the Industrial Emissions Directive [61] (IED). As announced in the European Green Deal, the Commission carried out an impact assessment for the revision of the IED in 2021 with a view to tabling a proposal in early 2022 [62]. 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 overview of industrial activities regulated by the IED is based on data reported to the EU Registry (2018).⁶³

In Austria, around 680 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 Austria with the most IED installations in 2018 were the waste management sector (38%), the chemicals production (12%), surface treatment of metals (8%), energy sector (6%) and food and drink sector (6%).

The industrial sectors identified as contributing the largest burden to the environment for **emissions to air** were: 'Other activities' (mostly, surface treatment, intensive rearing of poultry or pigs and pulp paper) for non-methane volatile organic compounds (NMVOCs), ammonia (NH₃), nitrogen oxides (NOx), cadmium (Cd), lead (Pb), mercury (Hg) and particulate matter (PM2.5); metal production for sulphur oxides (SOx), Pb, Hg, Cd, dioxins and NOx; the energy—power sector for Hg, Cd, Pb, NOx, SOx, dioxins and PM2.5; chemicals production for NMVOCs and SOx; and the waste management sector for dioxins and Hg.

Figure 17: Number of IED industrial installations per sector in Austria, 2018

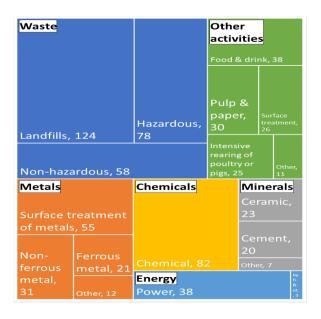
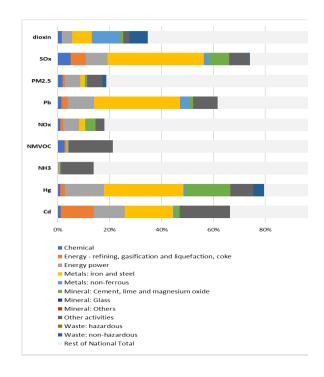


Figure 18: Emissions to air from IED sectors and rest of national total air emissions in Austria, 2018⁶⁴



⁶¹ 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 pigs and poultry, pulp and paper production, painting and cleaning).

The environmental burdens for industrial **emissions to** water mainly result from the production of pulp and paper, food and drink sector and the metals sector for

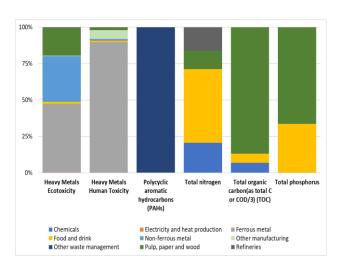
⁶² The revision of the IED is carried out in parallel with the revision of Regulation (EC) No 166/2006 on the European Pollutant Release and Transfer Register (E-PRTR).

⁶³ European Environment Agency, European Industrial Emissions Portal

⁶⁴ European Environment Agency, LRTAP, Air pollutant emissions data viewer (Gothenburg Protocol, LRTAP Convention) 1990-2019 (data retrieved on 3 November 2021).

nitrogen, phosphorous and total organic carbon, from waste management activities for polycyclic aromatic hydrocarbons, from metals and pulp and paper industries for heavy metals. The breakdown, based on E-PRTR data, is presented in the figure below.

Figure 19: Relative releases to water from industry in Austria⁶⁵, 2018⁶⁶

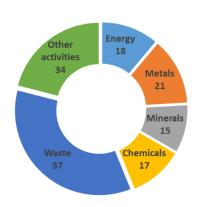


The EU approach to enforcement under the IED creates strong rights for citizens to have access to relevant information and to participate in the permitting process. This empowers citizens and NGOs to ensure that permits are appropriately granted and their conditions respected. As part of environmental inspection, competent authorities undertake site visits at IED installations to take samples and to gather necessary information.

Austria transposed the IED differently in each industrial sector and in each of the nine Länder. Due to the large number of legal acts, which are not always adopted in a co-ordinated way, some obligations have not been fully implemented in each sector or in each Land. This particularly affects rules on public consultation and access to justice. Affected members of the public concerned are not guaranteed to have access to justice in all cases specified by the Directive. An infringement procedure on this subject is pending and the Commission called on Austria to remedy the situation.⁶⁷

Site visits are carried out between once a year and once every 3 years, depending on the environmental risks posed by the installations. In 2018, Austria undertook 162 site visits, the majority of which were to waste management activities other than landfills (25%), landfill sites (10%), installations for chemicals production (10%), followed by the power sector (10%) and pulp and paper production (10%).

Figure 20: Number of inspections in IED installations in Austria in 2018⁶⁸



The development of Best Available Techniques (BAT) Reference Documents (BREFs) and BAT Conclusions ensures a good collaboration with stakeholders and enables a better implementation of the IED⁶⁹. Since the last EIR report, BAT Conclusions were adopted for (i) waste incineration; (ii) the food, drink and milk 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, resulting in continuous pollution reduction.

In 2019, Austria received priority actions to review permits and to strengthen control and enforcement to ensure compliance with BAT conclusions. These actions have been followed up by the Commission through the

⁶⁵ 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).

⁶⁶ European Environment Agency, E-PRTR, European Industrial Emissions Portal (data retrieved on 3 November 2021).

⁶⁷ April infringements package: key decisions (europa.eu)

⁶⁸ European Environment Agency, EU Registry, <u>European Industrial Emissions Portal (data retrieved on 3 November 2021).</u> Some categories in the figure combine more than one IED Annex I sub-activities, e.g. 'Cement ' combines IED Annex I 3.1 activities (a,b,c), and 'Pulp and paper' combines IED Annex I 6.1 activities (a,b,c).

⁶⁹ European Commission, <u>BAT reference documents</u>

reporting by Austria to the EU Registry and the Commission is currently verifying with Austria the reported information about the permits granted for each installation in the scope of the IED. In addition, as already mentioned, an infringement on the correct transposition is pending.

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 the Directive 2012/18/EU (the Seveso-III Directive⁷⁰).

Austria transposed Directive 2012/18/EU (Seveso III Directive) differently in each industrial sector and in each of the nine Länder. Due to the large number of legal acts, not always adopted in a co-ordinated way, some obligations have not been fully implemented in each sector or in each Land. In particular, it is not ensured in all cases the public concerned is given an early opportunity to give its opinion on specific individual projects. An infringement procedure on this subject is pending⁷¹.

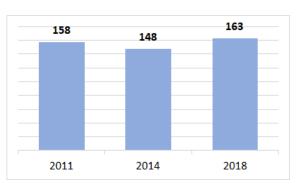
The below overview of industrial plants regulated by the Seveso-III Directive, ('Seveso establishments'), is based on data reported to the eSPIRS database (2018)⁷² and the Austria report on the implementation of the Seveso-III Directive for the period 2015-2018⁷³.

In Austria, among the 163 Seveso establishments, 75 are categorised as lower-tier establishments (LTEs) and 88 as upper-tier establishments (UTEs, based on the quantity of hazardous substances likely to be present. Upper-tier establishments are subject to more stringent requirements.

Many Seveso establishments are required to draw up external emergency plans (EEPs). These EEPs are

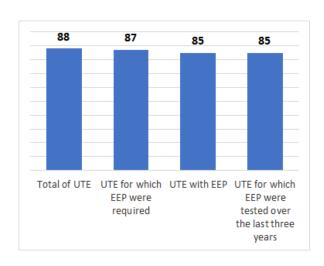
essential to allow proper preparation and effective implementation of the necessary actions to protect the environment and the population should a major industrial accident occur at them.)

Figure 21: Number of Seveso establishments in Austria, 2011, 2014 and 2018⁷⁴



In Austria, an EEP is required for 87 upper-tier establishments. In 2018, 85 such establishments had an EPP and all of these plans had been tested within the previous 3 years. The summary is shown in Figure 22 below.

Figure 22: Situation regarding EEP in Austria, 2018⁷⁵



The information forthe public referred to in Annex V of the Seveso-III Directive – especially in relation to how the

⁷⁰ Directive 2012/18/EU

⁷¹ European Commisson infringements; INFR(2020)2104

⁷² European Commission, <u>Seveso Plants Information Retrieval System</u>

⁷³ As provided for by Article 21(2) of the Seveso-III Directive

⁷⁴ 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.

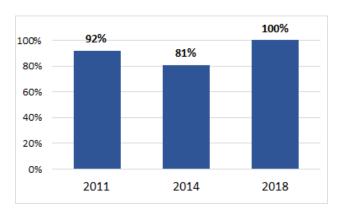
⁷⁵ idem.

public concerned will be alerted if there is a major accident, appropriate behaviour to take in such a case , and the date of the last site visit — are permanently available for 100% of the Seveso establishments in Austria. This is an important provision in the Seveso-III Directive as the public knowledge of this information reduce the consequences of a major industrial accident.

The share of upper-tier establishments for which information on safety measures and requisite behaviours were actively made available to the public in recent years is presented in Figure 23 below.

Austria has an infringement as regards the transposition of the Seveso-III Directive (see also IED Directive).

Figure 23: Share of UTEs for which information on safety measures and requisite behaviours was actively made available to the public in Austria, 2011, 2014 and 2018⁷⁶



2022 priority action

 Strengthen control and enforcement to ensure compliance with Seveso-III Directive provisions, especially on EEPs.

Noise

The Environmental Noise Directive⁷⁷ 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 stress⁷⁸.

In Austria, based on a limited set of data^{79,} environmental noise is estimated to cause at least around 460 premature deaths and 1100 cases of ischaemic heart disease annually⁸⁰. Moreover, some 225 000 people suffer from disturbed sleep. In Austria, overall noise exposure increased by 10% 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 has been completed.

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)⁸¹ is the cornerstone of EU water policy in the 21st century⁸². The WFD with other water-related legislation⁸³ set the framework for sustainable and integrated water management, which aims at a high level of protection of

⁷⁶ idem.

⁷⁷ Directive 2002/49/EC

⁷⁸ WHO 2018, Environmental Noise Guidelines for the European Region
⁷⁹ For further information: Furopean Environment Agency, Noise Fact

⁷⁹ For further information: European Environment Agency, <u>Noise Fact</u> Sheets 2021.

⁸⁰ 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.

⁸¹ The Water Framework Directive (2000/60/EC).

⁸² The EU Water Policy.

⁸³ Groundwater Directive (GWD) (2006/118/EC); Environmental Quality Standards Directive (EQSD) (2008/105/EC); Floods Directive (FD) (2007/60/EC); Bathing Waters Directive (2006/7/EC); Urban Waste Water Treatment Directive (91/271/EEC); Drinking Water Directive (2020/2184/EC), Nitrates Directive (91/676/EEC), Marine Strategy Framework Directive (MSFD) (2008/56/EC), Industrial Emissions Directive (IED) (2010/75/EU) and the Regulation on minimum requirements for water reuse (2020/741).

water resources, prevention of further deterioration and restoration to good status.

By March 2022, Member States had to report the third generation of river basin management plans (RBMPs) under the WFD. Austria has recently reported the third RBMPs. The Commission will assess the reported status and progress, checking how the findings identified in the assessment of the second RBMPs⁸⁴ have been addressed. When it carried out its assessment of the second generation of plans, the Commission informed Austria. about the main shortcomings it had identified. These related to the timely adoption of RBMPs, funding of measures (particularly for hydromorphological pressures), tackling chemical pollution and ensuring the implementation of Article 9 of the WFD.

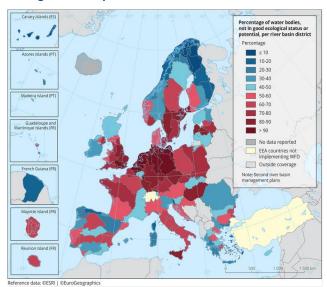
In December 2021, the Commission also published the 6th Implementation Report, which assess implementation of the WFD and the Floods Directive⁸⁵. This report includes an assessment of: (i) the implementation of the programmes of measures; and (ii) the new priority substances. The assessment report for Austria⁸⁶ showed that the measures listed in the second RBMP have been implemented as planned, both in substance and timing, but national and international efforts are still needed to meet the objectives in the WFD. One of the tasks mitigation remaining is the ongoing hydromorphological pressures and diffuse sources of nutrient pollution in agricultural areas.

Based on the reporting in the second RBMPs and data published in 2020⁸⁷, in Austria 46.6 % of all surface water bodies⁸⁸ have good ecological status (with 1.3 % having an unknown status), but 100 % fail to achieve good chemical status, ubiquitous persistent, bioaccumultive and toxic substances (uPBTs) included. For groundwaters, 2.9 % failed to achieve good chemical status, but 100 % are in good quantitative status.

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

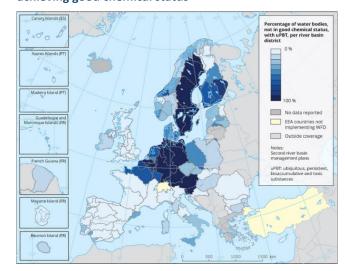
⁸⁴ Detailed information can be found in the <u>5th Report from the Commission on the implementation of the Water Framework Directive and the Floods Directive</u>, as well as in the 2019 EIR.

Figure 24: Proportion of surface water bodies (rivers, lakes, transitional and coastal waters) in less than good ecological status per River Basin District⁸⁹



The following figure presents the percentage of surface water bodies in Austria and other European countries failing to achieve good chemical status. For Austria this percentage is 100 %, if one includes water bodies failing due to substances behaving as uBTPs.. Without these, 100 % of surface water bodies achieve good chemical status.

Figure 25: Percentage of surface water bodies not achieving good chemical status⁹⁰



Under the IED framework, Austria showed a significant decrease over the last decade (33.6 %) in industrial

 $^{^{\}rm 85}$ See the <u>6th Implementation Report of the WFD and FD.</u>

⁸⁶ See the assessment report for Austria.

⁸⁷ WISE freshwater

⁸⁸ Rivers, lakse, transitional, coastal, and territorial waters

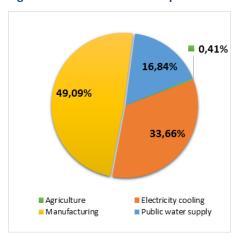
⁸⁹ European Environment Agency, 2021

⁹⁰ European Environment Agency, December 2019

releases of heavy metals like Cd, Hg, Ni, Pb and in total organic carbon (22.6 %) to water⁹¹.

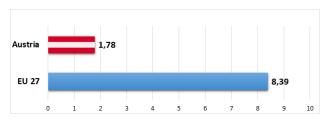
Total water abstracted annually from surface and groundwater sources in Austria is approximately 5480 hm³ ⁹². The percentage for water abstraction per sector is 0.41 % for agriculture, 16.84 % for public water supply, 33.66 % for electricity, 49.09 % for manufacturing, as illustrated in the following figure. Austria uses a register to control water abstractions. All abstractions subject to a permit in Austria are registered.

Figure 26: Water abstraction per sector in Austria93



In Austria, the water exploitation index plus $(WEI+)^{94}$ is 1.78 % (in 2017) – far below the 20 % which is generally considered to be an indication of water scarcity⁹⁵. Austria ranks 17^{th} (from high to low score) in EU level in terms of WEI+ .

Figure 27: Water exploitation index plus (WEI+) inside EU, 2017⁹⁶



⁹¹ European Environment Agency, June 2021.

It can be highlighted as a good practice that Austria, in order to adapt the level of capacity to the complexity of water challenges, promotes the education and certified training of water professionals, institutions and stakeholders, via professional associations⁹⁷

Floods Directive

In December 2021, the Commission published the 6th Implementation Report. It includes the review of and updates to the preliminary flood risk assessments during the second cycle (2016-2021). The assessment report showed that Austria comprehensively identified past floods, and reported the extent or area of all floods, as well as any recurrence. Damage has been reported for all floods, with qualitative descriptions and some quantitative information, as far as possible. It is worth highlighting that very transparent and clear quantitative thresholds are being used to designate areas of potential significant flood risk However, Austria's preliminary assessment of flood risks needs further improvement.

Austria has recently adopted and reported the second generation of flood risk management plans (FRMPs) under the Floods Directive. The European Commission will assess progress since the adoption of the first FRMPs and publish a new report, as it did in 2019

Drinking Water Directive

On the Drinking Water Directive ⁹⁸, no new assessment of the quality of drinking water became available since the 2019 EIR. The quality of drinking water in Austria has not been indicated as an area of concern.

The recast Directive⁹⁹ entered into force on 12 January 2021, and Member States have until 12 January 2023 to transpose it into their national legal system. Austria will have to comply with these reviewed quality standards.

Bathing Water Directive

Regarding the Bathing Water Directive, Figure 28 shows that in 2020, out of the 261 Austrian bathing waters 97.7 % were of excellent quality, 1.9 % were of good quality and none were of poor quallity¹⁰⁰. Detailed information on Austrian bathing waters is available from a national

⁹² European Environment Agency, 2022

⁹³ European Environment Agency, December 2019

⁹⁴ 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.

⁹⁵ By May 2022, EEA will develop seasonal WEI+ at river basin and NUTS2 level, which provide a more complete picture of water stress and water scarcity for each Member State.

⁹⁶ Eurostat, Water exploitation index plus, 2022

⁹⁷ OECD,2021

⁹⁸ OJ L 330, 5.12.1998, pp. 32–54

⁹⁹ OJ L 435, 23.12.2020, p. 1–62.

¹⁰⁰ European Environment Agency, 2021. State of bathing water

portal ¹⁰¹ and via an interactive map viewer from the European Environment Agency.

Figure 28: Bathing water quality in Europe in the 2020 season¹⁰²

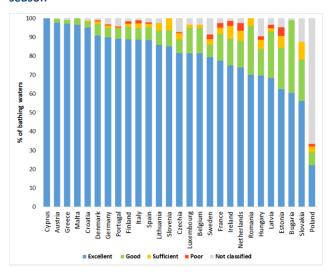
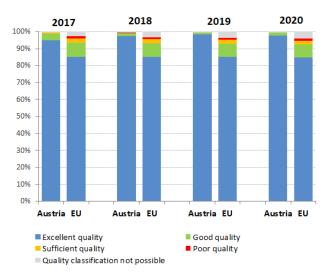


Figure 29: Bathing water quality 2017-2020¹⁰³



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

Nitrates Directive

According to the lates Commission report on the implementation of the Nitrates Directive covering 2016-2019, groundwater quality in Austria has slightly

improved as compared to the previous reporting perdiod, with the percentage of stations exceeding 50 mg nitrate per litre going from 8.1 % to 7.2 %. There is a well-developed network of monitoring stations. The groundwater quality is good in most regions, although hotspots remain in certain regions, especially in the agriculture-intensive parts in Lower and Upper Austria. The updated nitrate action programme dating from 2018 includes stricter measures for hotspots.

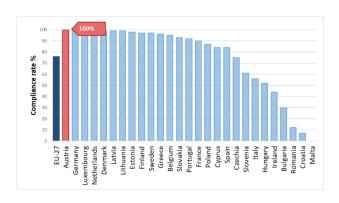
Nitrate loads have room to fall further, in particular in areas that currently have high nitrate concentrations, thanks to the measures taken. The favourable conditions reported so far in large parts of Austria, where nitrate concentrations have been comparatively low and stable for years, are expected to continue.

, There has been a marked improvement eutrophication in inland waters since the last reporting period. The share of surface waters that are non eutrophic rose from 19.6 % to 81.2 %.

Urban Waste Water Treatment Directive

Austria has excellent compliance rates for urban was tewater treatment. $^{104}\,$

Figure 30: 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'), 2018¹⁰⁵



The 2022 priority actions for Austria arise from the 6th Implementation Report on the Water Framework Directive.

¹⁰¹ Österreichische Agentur für Gesundheit und Ernährungssicherheit, Badegewässermonitoring

¹⁰² European Environment Agency, bBathing water quality in 2020

¹⁰³ European Environment Agency, European Bathing Water Quality in 2017, 2018, 2019, 2020

¹⁰⁴ European Environment Agency <u>Freshwater Information System for</u>

¹⁰⁵ European Commission, WISE Freshwater, 2021.

2022 priority actions

- Continue current efforts to mitigate hydromorphological pressures and counteract diffuse sources of nutrient pollution in agricultural areas.
- Ensure sufficient funding to implement measures from the RBMPs, in particular in addressing hydromorphological pressures.

Chemicals

The EU seeks to ensure that chemicals are produced and used in a way that minimises any significant adverse effects on human health and the environment. In October 2020, the Commission published its chemicals strategy for sustainability - "Towards a Toxic-Free Environment¹⁰⁶ which lead 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 chemical legislation 107 provides baseline protection for human health and the environment. It also ensures stability and predictability for businesses operating within the single 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 Regulations¹⁰⁸, 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 still many disparities in the implementation of the REACH and CLP Regulations, and 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. According to the latest available data, national enforcement structures have not changed much. However, it is apparent from this report that there are still many disparities in the REACH-CLP implementation and notably in the area of the law enforcement among the Member States. The recorded compliance levels seem to be quite stable over time, but with a slight worsening trend likely due to enforcement authorities being more effective in detecting noncompliant products/companies and more non-compliant products being put on the EU market.

In August 2021, the Commission published an assessment of the enforcement¹⁰⁹ of the two main EU Regulations on chemicals using a set of indicators on different aspects of enforcement.

Responsibility for checking compliance with REACH in Austria rests with the state authorities of the Länder. ¹¹⁰ Austria has devised and fully implementedenforcement strategies for both REACH and CLP¹¹¹. These focus on programmes on special duties of REACH and CLP, mixing proactive and reactive enforcement.

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.

In Austria, 18 staff (two in each Bundesland) are allocated to REACH and CLP enforcement 112 . There were 1 124 REACH controls during the reporting period and 2 061 CLP controls. The percentage of non-compliance cases out of the total number of REACH and CLP controls, is far below the EU-average 113 .

¹⁰⁶ COM(2020) 667 final

 $^{^{107}}$ REACH: OJ L 396, 30.12.2006, p.1. - CLP: OJ L 252, 31.12.2006, p.1

¹⁰⁸ European Commission, Final report REACH-CLP MS reporting, 2020

¹⁰⁹ European Commission, REACH and CLP enforcement: EU level enforcement indicators

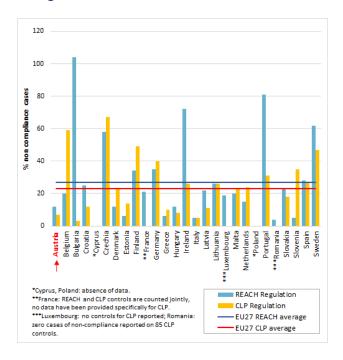
¹¹⁰ European Commission, Final report REACH-CLP MS reporting, p. 68

¹¹¹ idem, p. 76

¹¹² idem, p. 74

¹¹³ idem, p. 87f

Figure 31: 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 average¹¹⁴



2022 priority ction

Upgrade administrative capacities on implementation and enforcement towards zero tolerance of non-compliances.

¹¹⁴ idem, pp.87 - 88

4. Climate action

The EU and its Member States submitted updated nationally-determined contributions (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 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 2010¹¹⁵ and sets binding GHG emission standards for different vehicle categories ¹¹⁶.

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 policies¹¹⁷, 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

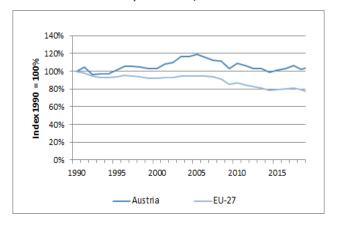
Austria has an integrated national energy and climate plan (NECP) covering 2021-2030. The work is consistent with its 2050 long-term strategy. The national objective is to reduce emissions by 36% by 2030 and become climate neutral by 2050 at the latest, without the use of nuclear energy. To this end, additional measures to reach the climate targets are needed. The new government has committed to adjust the national energy and climate plan to ensure it meets the 2030 GHG emissions goal, and seeks to achieve climate neutrality by 2040.

In its RRP, Austria allocates an amount equivalent to 57 % of the EU contribution to climate objectives and outlines crucial reforms and investments to further the green transition (see Chapter 5).

Austria adopted its national adaptation strategy in 2012, and revised it in 2019. As a part of the strategy, the national adaptation plan has been adopted.

Economy-wide greenhouse gas emissions in Austria have decreased 6 % between 1990 and 2020.

Figure 32: Total greenhouse gas emissions (incl. international aviation) in Austria, 1990-2020



Effort sharing target

For emissions not covered by the EU's emissions trading system (ETS), Member States have binding national targets under the Effort Sharing Regulation for 2021-2030. Under EU legislation, Austria has a target of reducing greenhouse gas emissions in the non-ETS sectors (buildings, road and domestic maritime transport, agriculture, waste and small industries) by 16 % by 2020 and 36 % by 2030 compared to 2005 levels. The country's non-ETS emissions in 2019 were slightly above its 2020 target of reducing by -36 % compared to 2005. In its National Energy and Climate Plan, Austria intends to achieve less reductions than its current ESR target for 2030 of -36 %.

¹¹⁵ The Fuel Quality Directive (Directive 98/70/EC) sets strict quality requirements for fuels used in road transport in the EU to protect human health and the environment, and to make road travel across the EU safer.

¹¹⁶ Directive 98/70/EC.

¹¹⁷ Article 29 of Regulation (EU) 2018/1999.

Figure 33: Emissions and targets under the Effort Sharing Decision/ Effort Sharing Regulation in Austia, 2020 and 2030 as percentage change from 2005

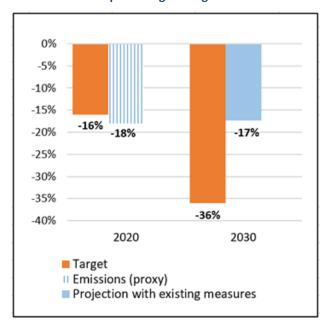
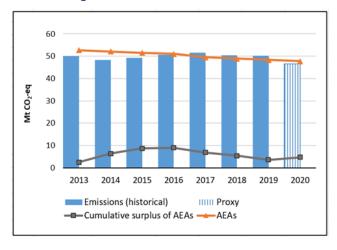


Figure 34: Emissions, annual emission allocations (AEAs) and accumulated surplus/ deficit of AEAs under the Effort Sharing Decision in Austria 2013-2020



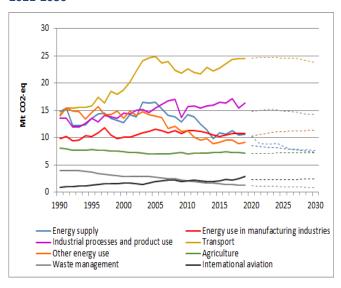
Key sectoral developments

In road transport, the GHG intensity of vehicle fuels in Austria has decreased by 3.2 % from 2010 to 2019. The country needs to act swiftly to meet the reduction target of 6% by 2020. There are several types of action that Member States can take in this regard, for example: (i) further expanding the use of electricity in road transport; (ii) supporting the use of biofuels, and advanced biofuels in particular; (iii) incentivising the development and deployment of renewable fuels of non-biological origin; and (iv) reducing upstream emissions before refining processes.

Road transport in Austria in 2019 represented 29.6 % of the total greenhouse gas emissions. Emissions have decreased by 3% compared to 2005. Reducing transport-related emissions is key for Austria's shift to climate neutrality, and for meeting air quality standards. According to the NECP, the transport sector has the greatest potential for GHG emission reduction $(-7.2 \text{ million} \text{ t } \text{CO}_2\text{eq} \text{ by 2030 compared to 2016}).$

Austria's RRP comprises the following reforms and investments for eco-friendly mobility: the *Klimaticket*, and the "Mobility Masterplan", support for zero-emission buses, and a large-scale rollout of electric vehicles and charging stations of EUR 256 million as well as expanding the electrified rail network between regions with EUR 543 million.

Figure 35: Greenhouse gas emissions by sector in Austria¹¹⁸ – historical emissions 1990-2019, projections 2021-2030¹¹⁹



Emissions from **buildings** have seen a continuous downward trend since 1990; they were 40 % lower in 2020 than they had been in 1990. The RRP includes a number of measures to further reduce GHG emissions in this sector, including from old oil heating.

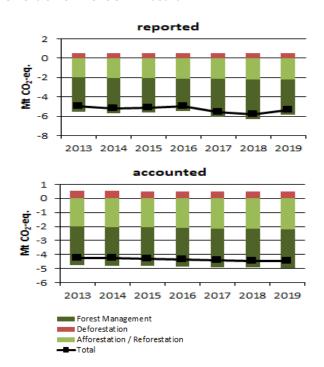
GHG emissions from **agriculture** decreased by 12 % between 1990 and 2003, but have remained broadly stable since then.

¹¹⁸ 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.

¹¹⁹ European Environmental Agency, <u>Total GHG trends and projections</u>.

In the land use, land use change and forestry (LULUCF) sector, Austria expects a further decrease of net removals from the land use and forestry sink by 2030. Quantities reported under the Kyoto Protocol for the LULUCF sector in Austria show net removals of, on average, -5.3 Mt CO₂-eq for the period 2013 to 2019. In this regard, Austria contributes with 1.5% to the annual average sink of -344.9 Mt CO₂-eq of the EU-27. Accounting for the same period depicts net credits of, on average, -4.4 Mt CO₂-eq, which corresponds to 3.8% of the EU-27 accounted sink of -115.0 Mt CO₂-eq. Reported net removals increase moderately over the period, but accounted net credits show no noticeable trend.

Figure 36: Reported and accounted emissions and removals from LULUCF in Austria ¹²⁰



Use of revenues from the auctioning of EU ETS allowances

Total revenues from auctioning emissions allowances under the EU ETS in 2012-2021 were over EUR 1,2 billion. In Austria revenues are not earmarked. National spending on climate and energy is >100 % of auctioning revenues. In several years, climate and energy projects financed from national budget were reported, even though their funding cannot be directly linked to the auctioning revenues.

2022 priority actions

- The energy system infrastructure needs to be adapted to meet the requirements of the green transition. Significant investment in storage infrastructure, transmission and distribution networks is needed to support the transformation of the energy system.
- Reaching EU and national climate targets will require further broadening and improving the pricing of greenhouse gas emissions to accelerate the green transition.
- Austria's NECP implied an increase of bioenergy through sustainable forest management. The sustainability of biomass use must be ensured and biodiversity must be taken into consideration.

¹²⁰ 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'.

Part II: Enabling framework: Implementation tools

5. Financing

Environmental investment needs in the EU

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 between countries.

Post-2020, environmental measures will also be supported by the EU's COVID-19 Recovery Fund (via the Recovery and Resilience Facility) 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)¹²¹ will also be reflected in the EU budget.

Overall environmental investment gaps (EU-27)

The EU's green transition investment needs cover a range of interlinked areas. The additional investment needs over the baselines (i.e. the gap) for climate, energy and transport were estimated at EUR 390 billion a year (EU-27)¹²², with further EUR 130 billion to deliver the EU's core environmental objectives¹²³. Climate adaptation costs can also be significant, reaching a total of EUR 35-62 billion (narrower scope) or EUR 158-518 billion (wider scope) per year¹²⁴. Those investment needs reflect the implementation objectives to 2020 and to 2030 (except for climate adaptation which costs are expected to linger on for a longer time horizon).

A preliminary update of the EU's environmental investment gap is provided in the following table¹²⁵. Almost 40 % of the environmental investment needs relate to dealing with pollution, accounting for nearly two-thirds if combined with water management. The investment gap in circular economy and waste is

estimated to be between EUR 13-28 billion p.a., 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 year¹²⁶

Environmental	Estimated investment gap (EU27, p.a.)		
objective	EUR billion	%	
Pollution prevention & control	42.8	39%	
Water management & industries	26.6	24%	
Circular economy & waste	13.0	12%	
Biodiversity & ecosystems ¹²⁷	21.5	20%	
R & D & I and other	6.2	6%	
Total	110.1	100%	

Environmental investment needs in Austria

There is a clear shift of investment priorities in Austria towards the support of the green transition as it can be appreciated in the national recovery and resilience plan

¹²¹ The Convention on Biological Diversity; Post-2020 Global Biodiversity Framework | IUCN.

¹²² SWD(2021)621, accompanying proposal COM(2021)557 to amend the REDII Directive (EU) 2018/2001.

¹²³ SWD(2020) 98 final/2

¹²⁴ SWD(2018)292

¹²⁵ With decreases due to Brexit and some reconciliation among the objectives. DG ENV "Study supporting EU green investment needs analysis" (ongoing, 2021-2023) and DG ENV internal analysis "Environmental Investment needs and financing in the EU's green transition", July 2020.

¹²⁶ 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.

¹²⁷ To meet the needs of the 2030 Biodiversity Strategy (Natura 2000, green infrastructure), at least EUR 20 billion a year should be unlocked for nature (COM(2020) 380 final) while to fully cover the strategy (including restoration) EUR 30-35 billion may be needed, indicating a gap of EUR 10-20 billion a year compared to current baseline expenditure.

(NRRP). 128 Austria's plan devotes 59 % of the plan's total allocation (EUR 3.46 billion) to measures that support climate and envrionmental objectives, i.a. through investments in sustainable mobility, phasing-out of oil and gas heating in private homes, biodiversity and climate adaptation, circular economy as well as energy efficiency improvements for companies, and ecoinnovation.

Pollution prevention & control

The EU First Clean Air Outlook 129 under the Clean Air Programme estimated that the total air pollution control costs for Austria to reach the NECD Emission Reduction Requirements (ERRs)¹³⁰ by 2030 amount to EUR 1589 million per year, including EUR 1 billion for capital investment (assuming the achievement the 2030 climate and energy targets).

The Second EU Clean Air Outlook¹³¹ suggests that, if all relevant legislation adopted up to 2018 (including all air pollution and the 2030 climate and energy targets set in 2018) delivered its full benefits and if Member States also implemented the measures announced in their NAPCPs, the EU would largely achieve the reductions of air pollutant emissions that correspond to the obligations under the NEC Directive for 2030, except for 15 Member States for ammonia (NH₃), including Austria.

Water management

Significant investment needs exist to accelerate compliance with the Water Framework Directive, such as the renaturalisation of the flow of rivers or removal of obstacles to fish migration. Floods are one of the costliest natural disasters in Austria, aggravated by climatechange induced heavy rainfalls, and mudflows in mountainous areas. Adaption of existing infrastructure, such as the sewer systems to manage heavier rainfalls, will be an important challenge in the near future. Austria has high compliance with the Urban Wastewater Treatment.

A recent OECD study¹³² estimates a cumulative additional financing need of EUR 260 billion (over

baselines) to ensure continued compliance with the Drinking Water Directive and the Urban Wastewater Treatment Directives to 2030 in the EU27. Of this, a cumulative EUR 4.5 billion relates to Austria (with EUR 2.2 billion on capital costs) corresponding to around EUR 445 million per annum (with EUR 221 million on capital) on average (beyond baseline water investment levels). Around 95 % of this cost relate to wastewater¹³³. Moreover, the recent 6th Water Framework Directive and Floods Directive Implementation Report¹³⁴ and the financial - economic study¹³⁵ accompanying it, are also a relevant source of information in this domain.

Waste & circular economy

A successful transition to a circular economy requires social and technological innovation, as the full potential of circular economy can only be reached when circular economy solutions are implemented across all value chains. In addition to investments in R&I, and support for start-ups and SMEs to commercialize innovations, Austria will need to invest in upgrading and digitalising existing waste infrastructure for meeting the post-2020 waste targets, in particular plastics packaging targets (including separate collection). For municipal and packaging waste, the additional investment needs (over baseline investments) for the EU27 were calculated to be EUR 14.7 billion in 2021-27 (ca. EUR 2.1 billion p.a.) to upgrade the waste system improving collection, sorting, biowaste treatment, reprocessing and digitalising registries - of which around EUR 195 million is estimated for Austria (EUR 28 million per annum, additional to current baselines). 136 This does not include investment needs for other key waste streams (plastics, textiles, furniture) or to reach higher levels of circular solutions.

Biodiversity & ecosystems

In the new Prioritized Action Framework (PAF) the Austrian government identifies the yearly investment needs as EUR 117 million covering both one-off investments and annually recurring maintenance costs, needed to achieve or maintain favourable conservation status of protected species and habitats in the Natura

¹²⁸ Council of the European Union, <u>Council Implementing Decision on</u> the approval of the assessment of the recovery and resilience plan for Austria

¹²⁹ International Institute for Applied Systems Analysis (IIASA), <u>Progress</u> towards the achievement of the EU's air quality and emissions

¹³⁰ Covering the reductions of and the emission ceilings for 5 atmospheric pollutants, SOx, NOx, PM2.5, NH3 and VOC by 2030, compared to 2005. Source: Progress towards the achievement of the EU's air quality and emissions objectives, Directive (EU) 2016/2284

¹³¹ COM(2021) 3, Support to the development of the Second Clean Air Outlook, 2020 and Annex

¹³² OECD, Financing a Water Secure Future, 2022

¹³³ OECD, Austria Country fact sheet- Financing Water Supply, Sanitation and Flood Protection

 $^{{}^{134}}$ <u>WFD and FD Implementation Reports</u> – DG Environment – European Commission.

¹³⁵ 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.

¹³⁶ European Commission, Study on investment needs in the waste sector and on the financing of municipal waste management in Member **States**, 2019

2000 network¹³⁷. This excludes additional costs to implment the Biodiversity Strategy to 2030, including on increased protection and restoration.

EU environmental funding 2014-2020

The multiannual financial framework (MFF) for the years 2014-2020 allocated almost EUR 960 billion (in commitments, 2011 prices)¹³⁸ for the EU. The commitment to green transition included a 20% climate target and funding opportunities for the environment, in particular, under the European Structural and Investment (ESI) Funds¹³⁹. The 2014-2020 budget was subsequently topped up with over EUR 50 billion (current prices) from REACT-EU (Recovery Assistance for Cohesion and the Territories of Europe) for cohesion policy action against coronavirus (COVID-19)¹⁴⁰.

Austria received EUR 6 634.7 million 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 65.5 million with further 71 million identified as indirect environmental investment value, totalling to EUR 136.6 million. The below figure givens an overview of (planned) individual ESI Funds earmarked specially to Austria (EU amounts, without national amounts) for the 2014-2020 period and the environmental investments contained. Figure 37: ESI Funds allocated to Austria, including environmental

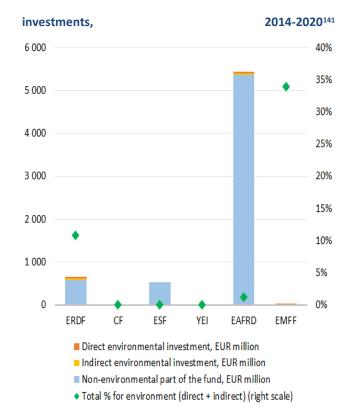


Table 2: Direct and indirect environmental investments under the ESI Funds in Austria, 2014-2020¹⁴²

Instrument	Allocations for the environment (EUR million)
Under Cohesion policy (ERDF)	71.4
Direct environmental investments	<u>38.4</u>
biodiversity and nature	0.7
Climate and risk management	37.7
Indirect environmental investments	<u>33.0</u>
energy efficiency	24.4

¹⁴¹ 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). ¹⁴² 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.

¹³⁷ The N2K Group, Strengthening investments in Natura 2000 and improving synergies with EU funding instruments report to the European Commission, 2021

¹³⁸ Regulation (EU) 1311/2013

¹³⁹ 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).

¹⁴⁰ Regulation (EU) 2020/2221

sustainable transport	4.3
business development, R&I	4.3
Under EAFRD/rural development	62.8
Direct environmental investments	<u>24.8</u>
water	10.7
climate and risk management	14.0
Indirect environmental investments	<u>38.0</u>
renewable energy	37.1
energy efficiency	1.0
Under EMFF	2.4
Under EMFF Direct environmental investments	2.4 <u>2.4</u>
Direct environmental investments environment protection & resource	
Direct environmental investments	<u>2.4</u>
Direct environmental investments environment protection & resource	<u>2.4</u>
<u>Direct environmental investments</u> environment protection & resource efficiency	2.4 2.4
Direct environmental investments environment protection & resource efficiency Indirect environmental investments	2.4 2.4 0.01
Direct environmental investments environment protection & resource efficiency Indirect environmental investments Business development, R&I	2.4 2.4 0.01 0.01

Funding for the environment from the ESI Funds has been also supplemented by other EU funding programmes available to all Member States, such as, the LIFE programme, the Horizon 2020 or loans from the European Investment Bank (EIB), that add up to an estimated total of EUR 505 million EU environmental financing for Austria in 2014-2020.

The LIFE programme¹⁴³ is entirely dedicated to environmental and climate objectives. It finances demonstration and best practice actions for green solutions to be deployed. In the 2014-2020 period, Austria has received EU support for 26 LIFE projects with EUR 94.4 million from the LIFE programme for nature and environment projects (out of 1 028 EU27 LIFE projects with a total EU contribution of EUR 1.74 billion) ¹⁴⁴.

In 2014-2020, the Horizon 2020 allocated about EUR 58.2 million for Austria for the environment, in particular, for climate action, circular economy and raw materials which is 3 % of Austria's total allocation¹⁴⁵. From the European Fund for Strategic Investments (EFSI), Austria received a total of EUR 1,339.8 million financing. Of this, EUR 41.5 million belonged to multi-purpose projects that also included the environmental objective (among others) ¹⁴⁶. The environment-related EIB loans to Austria amounted to 199.5 million (supporting water and sewerage), out of an overall EUR 10,466.9 million EIB lending to Austria in

¹⁴³ European Commission, LIFE Programme.

the period $(1.9 \%)^{147148}$. The country ranks number 10 by the size in total EIB lending.

In 2020, the EIB provided EUR 24.2 billion to fight climate change, 37 % of its total financing (a marked increase) and EUR 1.8 billion (3 % of its financing) for the environment 149 .

EU environmental funding 2021-2027

The 2020 European Green Deal Investment Plan (EGDIP) calls upon EUR 1 trillion green investments (public and private) by 2030. The multiannual financial framework (MFF) 2021-2027 and the NextGenerationEU will mobilise EUR 2.018 trillion (in current prices) to support the COVID-19 recovery and the EU's long-term priorities, including environmental protection. Following the EU Green Deal's do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF do no harm' pledge and the Interinstit

Sustainable finance significantly increases transparency on environmental sustainability (EU Taxonomy)¹⁵³, strengthens non-financial reporting requirements, facilitates green bond issuance (by the EU Green Bond Standard¹⁵⁴). Reinforced by the Renewed Sustainable Finance Strategy (2020)¹⁵⁵ it will increase investment flows to climate and environment. In support of financing climate adaptation, the new strategy on adaptation to climate change¹⁵⁶ can facilitate to close the insurance protection gap from non-insured climate-related events¹⁵⁷. The EIB will align 50 % of its lending with

¹⁴⁴ LIFE Country Fact Sheet Austria.

¹⁴⁵ Source: https://sc5.easme-web.eu/, accessed: 15-12-2021.

¹⁴⁶ See approved and signed EFSI financing - EIB, 2015-2020 https://www.eib.org/en/products/mandatespartnerships/efsi/index.htm.

¹⁴⁷ EIB loans in EU countries in 2014-2020. See: EIB Open Data Portal: https://www.eib.org/en/infocentre/eib-open-data.htm

¹⁴⁸ 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.

EIB Activity Report, 2021.

European Commission, 2021-2027 long-term EU budget & NextGenerationEU.

¹⁵¹COM/2019/640 final.

¹⁵² Interinstitutional Agreement, OJ L 433I.

https://ec.europa.eu/info/business-economy-euro/banking-andfinance/sustainable-finance/eu-taxonomy-sustainable-activities_en.

¹⁵⁴ EU Green Bond Standard - 2021/0191 (COD).

¹⁵⁵ COM (2021) 390 Final - European Commission, Strategy for Financing the Transition to a Sustainable Economy.

¹⁵⁶ COM(2021) 82 final.

¹⁵⁷ 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

climate and environment by 2025¹⁵⁸ with an EUR 250 billion contribution to the Green Deal Investment Plan by 2027.

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

Instrument	Country funding allocation (million EUR)
Cohesion policy	Total: 1 150.6 159
ERDF	537.4
ESF+	393.6
ETC (ERDF)	219.6 ¹⁶⁰
Just Transition Fund	135.8161
EAFRD/rural development under CAP Strategic Plans 2023-2027 ¹⁶²	2 600.1 ¹⁶³
European Maritime, Fisheries and Aquaculture Fund (EMFAF)	EUR 6.7 ¹⁶⁴
Recovery and Resilience Facility (RRF) 2021 – 2026 ¹⁶⁵	3 461.4 ¹⁶⁶ (grants)

In Austria, 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.

Austria's RRP has a total value EUR 4.5 billion, which is above the non-repayable financial support available to

Pension Authorities) dashboard on insurance protection gap for natural catastrophes. See: <u>The pilot dashboard on insurance protection gap for natural catastrophes</u> | <u>Eiopa (europa.eu)</u>.

- 158 EIB Climate Bank Roadmap 2021-2025, November 2020.
- ¹⁵⁹ European Commission, <u>2021-2027 Cohesion policy EU budget</u> <u>allocations.</u>
- $^{\rm 160}$ Interreg initial allocations per MS including ETC transnational and ETC cross-border cooperation.
- ¹⁶¹ European Commission, <u>2021-2027 Cohesion policy EU budget</u> <u>allocations.</u>
- ¹⁶² European Commission, <u>CAP strategic plans</u>.
- ¹⁶³ Regulation (EU) 2021/2115, Annex XI.
- ¹⁶⁴ Regulation (EU) 2021/1139, Annex V.
- ¹⁶⁵ The actual reforms and investments under the RRF have to be implemented until 31 December 2026.
- ¹⁶⁶ Council Implementing Decision, FIN 520.

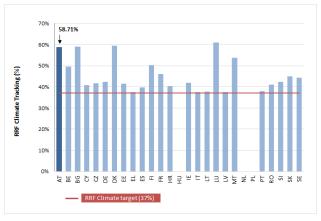
Austria under the RRF Regulation of EUR 3.46 billion. Overall, the RRP contributes to climate objectives and the green transition through investments corresponding to 58.7% of the financial contribution by the Recovery and Resilience Facility, which is well above the required 37%. The RRP contains also measures promoting biodiversity, circular economy, climate adaptation and prevention of climate related risks.

Through the new biodiversity fund, EUR 50 million will be spent on projects for the preservation of biodiversity, restoration of degraded ecosystems, and a new biodiversity monitoring system.

Circular economy will benefit from investments in reverse vending systems and measures to increase the reuse quota of beverage containers, in retrofitting of old and construction of new waste sorting facilities, and from a repair bonus that aims to raise the share of reused and repaired electronic equipment. As result of these investments, the collection rate of plastic beverage packaging is expected to increase from 70 % to 80 %, whereas by 2026 at least 50 % of Austrian plastic waste is expected to be sorted for further recycling (it was 33 % in 2018).

With a focus on adaptation to climate change in town centres, the plan includes support for municipalities and businesses for their investment in building renovation, façade greening, high-efficiency district heating, and rehabilitation of brownfield sites.

Figure 37: Climate expenditure in RRP, 2021-2026¹⁶⁷



Under NextGenerationEU, the Commission will issue up to EUR 250 billion of EU green bonds (1/3 of NGEU) until 2026 that will comply with the general spirit of the DNSH principle, but will not be subject to the currently developed Delegated Acts related to the EU Taxonomy and will not fully align with the proposed EU Green Bond Standard_because negotiations (trilogue) will likely not be

¹⁶⁷ European Commission. The contributions to climate objectives have been calculated using Annexes VI of the RRF Regulation (EU) 2021/241.

concluded at the moment of issuance of the EU green bonds.

In addition to EU funds earmarked specifically for Austria in the 2021-2027 period, there are also funding programmes that can been accessed at the EU level and which are open to all Member States. These include, , the LIFE programme¹⁶⁸ (EUR 5.4 billion), Horizon Europe (EUR 95.5 billion)¹⁶⁹, the Connecting Europe Facility¹⁷⁰ (EUR 33.7 billion)¹⁷¹ or the funds to be mobilised via the InvestEU programme¹⁷². They will also support the green transition, including research and innovation activities for environmental protection (Horizon Europe)¹⁷³, clean transport and energy (the Connecting Europe Facility)¹⁷⁴ or sustainable infrastructure (InvestEU)¹⁷⁵.

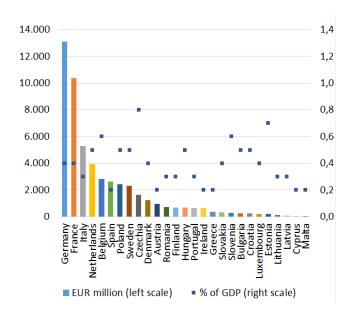
National environmental protection expenditure

Total national environmental protection expenditure (including all relevant current and capital expenditure)¹⁷⁶ in the EU-27 was EUR 272.6 billion in 2020, representing 2 % of the common GDP being quite stable over time. While absolute expenditure is concentrated in a few countries, as a share of GDP, most countries spend between 1-2 %, with Austria (and Belgium) leading with over 3%.

Of the above total, the EU27's capital expenditure (Capex) on environmental protection (i.e. investment) amounted to EUR 56.3 billion in 2018, lowering to EUR 54.5 billion in 2020, representing around 0.4 % of GDP. Most Member States invested 0.2-0.5 % of their GDP in environmental protection. Austria invested 0.2 % of its GDP in environmental protection. During 2014-

2020, this totalled to around EUR 376 billion of environmental investment in the EU27, and to EUR 5 471 million for Austria.

Figure 38: Environmental protection investments in the EU-27 (EUR million and % of GDP), 2018¹⁷⁷



By **institutional sector**, around 60 % of Austria's environmental protection investments (capital expenditure) came from the specialist and secondary producers of environmental protection services (e.g. waste and water companies), 8.5 % from general government and around a third from industry (business sector) that normally pursues environmental activities as ancillary to their main activities. At EU level, 37 % comes from governments, 33 % from specialist producers and 30 % from industry (business).

¹⁶⁸ European Commission, <u>LIFE Programme</u>.

¹⁶⁹ European Commission, <u>Multiannual financial framework 2021-2027</u> (in commitments) - current prices.

¹⁷⁰ 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.

¹⁷¹ Regulation (EU) 2021/1153.

¹⁷² 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 the investment of financial partners such as the European Investment Bank (EIB) Group and others.

¹⁷³ European Commission, <u>Horizon Europe</u>.

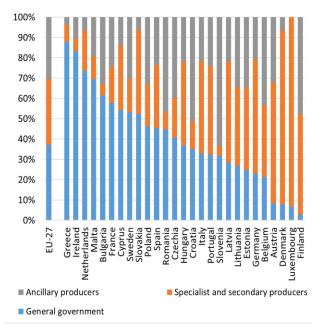
¹⁷⁴ European Commission, Connecting Europe Facility

¹⁷⁵ European Union, https://investeu.europa.eu/index_fr.

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.

¹⁷⁷ Eurostat, Environmental Protection Expenditure Account, 2021.

Figure 39: EU-27 Member States' environmental protection investments (Capex) by institutional sectors (Total economy = 100%), 2018¹⁷⁸

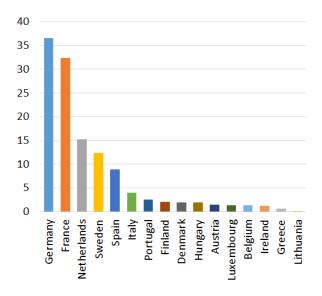


Breakdown of investment **by environmental topic** is partially available, at the level of institutional sectors only (instead of economy level), due to different reporting patterns. ¹⁷⁹ At Austria's general government level, based on reported values, 18 % of environmental protection investments went to tackling pollution, 11 % to wastewater, 8 % to waste management, while a significant part (around 50 %) appeared jointly for R&D and non-classified. In case of country's specialist producers, waste management is dominant with 42 %, wastewater receiving 28 %, water- and soil pollution 14 %. As regards the business sector, the main concern was air pollution (56 %), wastewater 16 % and waste 11 %.

In 2020, the total annual European **green bond** issuance¹⁸⁰ was USD 156 billion (EUR 137 billion¹⁸¹), growing from USD 117 billion (EUR 105 billion) in 2019, also including some non-EU European countries. By EU-

27 Member States only, the 2020 annual green bond issuance was EUR 124 billion. 83 % of the green bond issued by European countries served energy, buildings or transport objectives between 2014-2020, 8 % supported water and waste, with further 6 % supporting land use — with links to ecosystem conservation & restoration, based on the Climate Bonds Taxonomy being broadly similar to the EU Taxonomy¹⁸². Austria was among the countries that issued green bonds in 2020 (EUR 1.49 billion).

Figure 40: Annual EU green bond issuance in 2020 (EUR billion)¹⁸³



Green budget tools

Green taxation and tax reform

Austria's revenue from environmentally-related taxes was 2.1 % of GDP in 2020, and thus among the lowest in the EU, as shown in the graph. Within this, energy and transport taxation represents the 57 % and 41 % are spectivley, while pollution/resource tax is negligible. 184

The 2019 European Green Deal underlines that well-designed tax reforms can boost economic growth and resilience, foster a fairer society and a just transition, by sending the right price signals and incentives to economic actors. The Green Deal creates the context for broad-based tax reforms, fossil fuel subsidies removal, shifting the tax burden from labour to pollution, also accounting

 $^{^{178}}$ Eurostat, Environmental Protection Expenditure Accounts

¹⁷⁹ Data reporting is different for the 3 institutional sectors, leading to aggregation difficulties. Specialist companies provide comprehensive data across all environmental areas (CEPA 1-9), while this is less the case for general government and industry that often report (the non-obligatory) data in merged categories only (with difficulty to split) or not at all.

¹⁸⁰ 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.

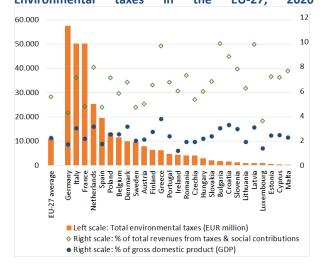
¹⁸¹ At Eurostat's annual average EUR/USD exchange rates.

¹⁸² Further information on Climate Bonds Taxonomy: https://www.climatebonds.net/standard/taxonomy Interactive Data Platform at www.climatebonds.net.

¹⁸³ Climate Bonds Initiative, 2022

¹⁸⁴ Eurostat, Environmental Taxes

for social considerations. The application of the 'polluter pays principle' (PPP) 185 stipulating that polluters bear the cost of measures to prevent, control and remedy pollution; is facilitated by the EU Commission's TSI flagship on greening taxes. In 2021 Austria adopted an eco-social tax reform. Its cornerstone is the introduction of a price for CO₂ emissions on fossil energy sources in non-ETS sectors as of mid-2022, starting at EUR 30/ton and rising to EUR 55/ton by 2025. A climate bonus compensates for the additional energy costs depending on regional factors such as the quality of public transport. And as part of the tax shift, income tax as well as health insurance contributions for low income earners have been lowered. The eco-social tax reform presents a step change and has paved the way for CO₂ pricing, but the impact will be limited in the beginning 186. Figure 41: the **Environmental** taxes EU-27,



Environmentally harmful subsidies

Addressing and removing environmentally harmful subsidies (EHS) is a further step towards wider fiscal reforms¹⁸⁸.

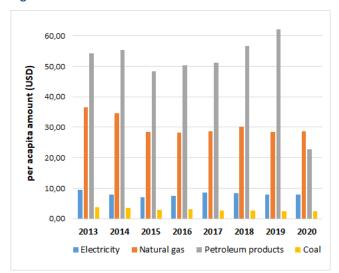
Fossil fuel subsidies are costly for public budgets and adversely impact the achievement of the Green Deal objectives. In many cases they also go against incentives for investments in green technologies, not contributing to levelling the playing field. They varied around EUR 55 billion in the EU since 2015: they rose by 4% between 2015 and 2019, however some countries, such as Latvia,

¹⁸⁵ 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".

Lithuania Sweden, Greece or Ireland, managed to decrease subsidies for fossil fuels. In the EU, subsidies on petroleum products, in sectors such as transport and agriculture, kept on growing over this period, whereas subsidies on coal and lignite decreased, due to 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 (being 0.4 % on EU average). In 2019 For Austria total fossil fuel subsidies amounted to EUR 0.3 billion, representing 0.07 % of the GDP.

In 2020, the EU27's total amount of fossil fuel subsidies decreased to EUR 52 billion (due to falling consumption amid the COVID-19-related restrictions) which, without Member State actions, are likely to rebound as economic activity picked up from 2020¹⁸⁹.

Figure 42: Trends in fossil fuel subsidies in Austria 190



% GDP	2015	2016	2017	2018	2019	2020
Electricity	0.02	0.02	0.02	0.02	0.02	0.02
Natural gas	0.06	0.06	0.06	0.06	0.06	0.06
Petroleum	0.11	0.11	0.11	0.11	0.12	0.05
Coal	0.01	0.01	0.01	0.01	0.01	0.01

Green budgeting practices

Green budgeting encompasses various climate and environmental tagging and tracking practices in budgets and some EU Member states already use green

¹⁸⁶ European Commission. Semester Counbry Report Austria 2022

¹⁸⁷ Eurostat, Environmental taxes accounts

¹⁸⁸ European Commission, <u>Study on assessing th environmental fiscal</u> reform potential for the EU 28, 2016.

¹⁸⁹ COM(2021) 950 and Annex

¹⁹⁰ OECD, Fossil Fuel SubsidyTracker.

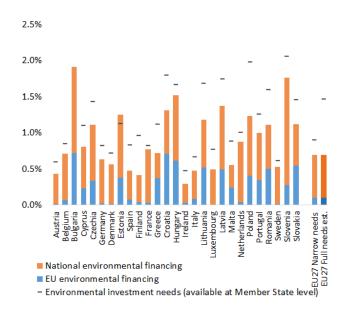
budgeting elements¹⁹¹. Green budgeting helps identify and track green expenditure and green revenues to increase transparency on the greenness of budgetary policies, improving policy coherence and supporting green policies (including climate end environmental objectives). ¹⁹²

EU climate proofing and sustainability proofing guidance have also been developed, as tools to assess project eligibility and compliance with environmental legislation and criteria¹⁹³. The EU Commission established a green budgeting reference framework¹⁹⁴ and launched a technical support project (TSI) on green budgeting in 2021 to assist Member States in developing or further developing national green budgeting frameworks to reap the benefits for policy coherence and for the green transition. So far, Austria makes no use of green budgeting practices¹⁹⁵, but participates in the EU Commission's green budgeting TSI started in 2021.

Overall environmental financing compared to the needs

The EU's overall environmental financing for investments is estimated to have been 0.6-0.7 % of GDP in the 2014-2020 period, taking into account major EU funds and national financing. This ranged from 0.3 % (Ireland) to 1.91 % (Bulgaria), linked to the level of environmental challenges in Member States. In the 2021-2027 period, the overall EU environmental investment needs are estimated to range between 0.9 and1.5 % of the projected 2021-2027 GDP, suggesting a potential environmental financing gap of 0.6-0.8 % of GDP, previous financing levels assumed ¹⁹⁶.

Figure 43: Total environmental financing baseline (2014-2020) and estimated needs (2020-2030) in the EU27 (% of GDP)¹⁹⁷



Austria's environmental financing for investments came to an estimated 0.44 % of GDP in 2014-2020 (lower than the EU average), in over 90 % coming from national financing. In 2021-2027, the country's environmental investment needs are estimated to reach over 0.60 % of GDP (with partial information, available at country level), suggesting an environmental financing gap of at least 0.16 % of the GDP, likely to be higher when also accounting for needs identified at EU level (e.g. water protection, circularity, biodiversity strategy etc.) — to be addressed by mobilising additional financing for environmental implementation priorities.

2022 priority action

 To ensure an increased level of financing for the environment to cover the investment needs across the environmental objectives and priorities and to avoid investment gaps.

¹⁹¹ European Commission, <u>Green Budgeting Practices in the EU: A First Review</u>, 2021.

¹⁹² European Commission, <u>European Commission Green Budgeting</u>
<u>Reference Framework.</u> European Commission, <u>Green Budgeting in the</u>
<u>EU Key insights from the 2021 Commission survey</u>.

¹⁹³ European Commission, <u>Technical guidance on sustainability proofing</u> for the InvestEU Fund.

¹⁹⁴ European Commission, Green Budgeting Reference Framework, based on the review of the OECD Paris Collaborative on Green Budgeting initiative, 2017.

¹⁹⁵ SWD(2021) 160

¹⁹⁶ Source: 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.

¹⁹⁷ Eurostat, <u>ESI Funds open data</u>, 2021.

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.

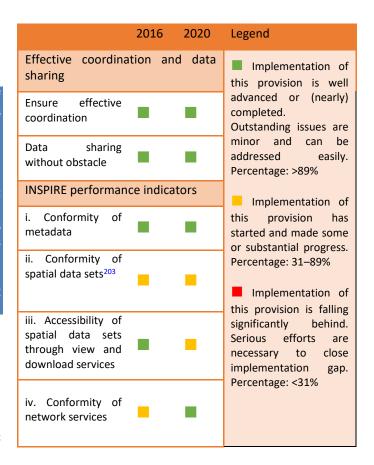
It is of crucial importance to public authorities, the public and businesses that environmental information is shared efficiently and effectively¹⁹⁸. Public participation allows authorities to make decisions that take public concerns into account. Access to justice is a set of guarantees that allows citizens and NGOs to use national courts to protect the environment¹⁹⁹. It includes the right to bring legal challenges ('legal standing')²⁰⁰.

Environmental information

The INSPIRE Directive aims to create a European spatial data infrastructure for sharing environmental spatial information between public authorities across Europe, assisting in policy-making across boundaries and facilitating public access to this information. Geographic information is needed for good governance at all levels and should be readily and transparently available.

Austria's implementation of the INSPIRE Directive is good. Its performance has been reviewed based on the country's 2021 country fiche²⁰¹. Data identification and documentation have made good progress, and implementation levels are good.

Table 4: Country dashboard on implementation of the INSPIRE Directive, 2016-2020²⁰²



Public participation

Beyond the implementation of the relevant legislation, there is scope for encouraging participation in the Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) processes²⁰⁴. While a specific Government website to encourage public participation has been creted²⁰⁵, this does not focus on environmental issues, and does not signpost sources of information on the EIA for the public. The situation on SEA processes is more encouraging: a specific website

¹⁹⁸ 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 sharing environmental information between public authorities and with the public. This EIR focuses on the INSPIRE Directive's implementation.

¹⁹⁹ 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.

 $^{^{200}}$ 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.

²⁰¹ European Commission, INSPIRE-in-your country

²⁰² INSPIRE knowledge base, 2021.

²⁰³ The deadlines for implementation of the spatial data interoperability were in 2016 still in the future: 23/11/2017 for Annex I data and 21/10/2020 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 countries provide as-is-data sets in addition to the INSPIRE harmonised data sets.

²⁰⁴ Information on publicity for SEA processes is available at: https://www.strategischeumweltpruefung.at/sup-grundlagen/sup-oeffentlichkeit.

²⁰⁵ https://partizipation.at

includes a section on the involvement of the public and the environmental agencies (*Beteiligung der Öffentlichkeit und der Umweltstellen*)²⁰⁶.

Access to justice

The requirements for recognising an environmental organisation as a party are laid down in Section 19 of the EIA Act (UVP-G 2000). This provision requires the organisation to: (i) have been a non-profit organisation for at least 3 years; (ii) have at least 100 members; and (iii) have environmental protection as its main objective. Federations must comprise at least five member associations. Every three years organisations must prove that they still meet the recognition requirements. A list of all recognised environmental organisations is available on the website of the Ministry for Climate Action, Environment, Energy, Mobility, Innovation Technology.

The nine Austrian Länder with responsibility for nature protection recently introduced legislation which provides for access to justice against some individual decisions relating to the implementation of parts of EU environmental law (mainly the Habitats Directive and the Birds Directive). Rules are different in each Land. Access to justice is limited to NGOs (individuals are excluded) and in some cases subject to procedural obstacles which are not compatible with EU law.

There are no general provisions granting members of the public access to review procedures. It is not possible to challenge the substance or procedural issues, such as ineffective or missing public participation in planning-related decisions. A plan or programme can only be challended if they were issued as a law or ordinance. This right to review before the Constitutional Court is, however, limited to a small number of persons. Plans or programs cannot be challenged at an administrative supervisory forum or at a court.

There is a system of regular supervision of regulatory legally binding acts but this is not accessible for members of the public and NGOs. They can only bring issues to the attention of the bodies or officials entitled to initiate an extraordinary supervision procedure. This is particularly problematic if state authorities take measures by self-executing ordinances, which cannot be legally challengend by NGOs. This seems to become more

wide-spread since NGOs obtained limited access to justice against individual decisions.

The Government of Austria provides a legal information system (Rechtsinformationssystem - RIS) 207 online, where all legal provisions including case law can be accessed. The Federal Ministry of Climate Action, Environment, Energy, Mobility, Innovation and Technology provides structured information regarding EIA. 208 Practical information on SEA and EIA is available at a dedicated website, called partizipation.at. Structured dissemination focusing on environmental access to justice for affected individuals, NGOs and other third-parties is mainly provided by the ombudsman for the environment in the Länder and NGOs such as the environmental umbrella organisations $\ddot{O}kob\ddot{u}ro$ und Umweltdachverband. 209

An infringement prodecure relating to the insufficient implementation of the Aarhus Convention, in particular standing of the public concerned, in Austria is still pending.

In 2019 priority actions were identified to improve access to information for the public. Some progress has been made on these.

2022 priority actions

- Improve access to courts by the public concerned when it comes to challenging administrative or regulatory decisions covering planning, in particular in relation to water, nature and air quality.
- Ensure that the public has access to justice to review self-executing regulatory acts, such as ordinances derogating from the basic principles of EU environmental law.
- Monitor public participation in EIA and SEA processes, in particular, with the view to exploring trends in public engagement.

Compliance assurance

Environmental compliance assurance covers all the work undertaken by public authorities to ensure that industries, farmers and others fulfil obligations to protect water, air and nature, and managing waste²¹⁰.

oeffentlichkeit.

²⁰⁶Information on publicity for SEA processes is available at: https://www.strategischeumweltpruefung.at/sup-grundlagen/sup-

²⁰⁷ Rechtsinformationssystem des Bundes

 $^{^{208}}$ Bundesministerium für Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie, $\underline{\sf UVP}.$

²⁰⁹ <u>ÖKOBÜRO – Alliance of the Austrian Environmental Movement</u> and <u>Umweltdachverband</u>.

²¹⁰ 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.

It includes support measures provided by the authorities such as:

(i) compliance promotion ²¹¹;

(ii) inspections and other checks that they carry out, i.e. compliance monitoring ²¹²;

(iii)the steps that they take to stop breaches, impose sanctions and require damage to be remedied, i.e. enforcement²¹³.

Citizen science and complaints enable authorities to focus their efforts better. Environmental liability²¹⁴ ensures that the polluter pays to remedy any damage.

Compliance promotion and monitoring

The website of the Federal Environment Agency (Umweltbundesamt) has a specific page on Natura 2000 and the Birds Directive²¹⁵, which provides clear and easyto-understand information, although it is focused on general issues of nature protection policy, rather than on measures for farmers and other land managers. Information available on measures to take is mostly linked to relevant funding programmes, including under the common gricultural Policy, although there is a detailed handbook available²¹⁶ on relevant measures for foresters. Information related to the Nitrates Directive is similarly focused on funding opportunities. Information provided at regional (Land) level is mostly focused on providing general public information, rather than practical information for land managers.

A national-level environmental inspection plan has been developed by the Federal Environment Agency. Based on the national inspection plan, the governors of each federal state draw up programmes for routine environmental inspections²¹⁷, indicating the frequency of on-site visits for the various types of facilities and for different levels of risk. Comprehensive data for inspections carried out, including a pdf of each report, are available on the government's electronic documentation and data management portal for the environment²¹⁸. However, summary statistics do not appear to be available.

Complaint handling and citizen science

The handling of complaints is decentralised, and there does not appear to be clear public information at federal level on how to submit environmental complaints. However, the Environmental Advocacy of Austria (Umweltanwaltschaften) has benn set up in every Land. Their role is to represent the public interest in nature and environmental protection, and to support members of the public who have environmental problems and complaints²¹⁹. However, their online presence does not provide clear signposting of how citizens can raise specific concerns. However, an app called 'Sag's Wien', allows for the submission of complaints to the city administration. This app seems to be only available in the Land of Vienna and there is no information available on the results of submissions through this app. There do not appear to be awareness-raising campaigns to inform the public about how to report environmental concerns or to encourage people to do so.

Information is not available at national level on the handling of citizens' complaints. However, there are a number of active citizen science initiatives in other environmental areas, and a website (created by academic and other institutions) gathers and presents information on these²²⁰.

Enforcement

Statistics on environmental crimes are provided by the Federal Ministry of the Interior. The latest report available is from 2019²²¹. For each year, a narrative report is provided, with a relevant annex, and a separate document on statistics and analysis. This report (Crime Report - Statistics and Analysis) includes statistics for a wide range of criminal offences, such as criminal acts against life, as well as criminal acts against freedom; however, there is no statistics on environmental crimes in this report. However, there is a separate section on environmental crimes in the annex accompanying the annual reports, including statistics on offences related to intentional or negligent damage to the environment, handling and transfer of waste hazardous to the environment, as well as endangerment of fauna and flora.

 $^{^{\}rm 211}$ This EIR focuses on the help given to farmers to comply with nature and nitrates legislation.

²¹² This EIR focuses on inspections of major industrial installations.

²¹³ This EIR focuses on the availability of enforcement data and coordination between authorities to tackle environmental crime.

²¹⁴ The Environmental Liability Directive, 2004/35, creates the framework.

²¹⁵ <u>Umweltbundesamt</u>

²¹⁶Kuratorium Wald

²¹⁷ Umweltbundesamt

²¹⁸ Environmental inspection reports (*Umweltinspektionsberichte*)

²¹⁹ <u>Umweltanwaltschaft</u>

²²⁰ See https://www.citizen-science.at/ueber-uns/ueber-oesterreich-

²²¹ Security reports (Sicherheitsbericht). Information available at: https://www.bmi.gv.at/508/start.aspx.

Environmental Liability Directive

It was not possible to identify a registry or central database where data on environmental incidents or ELD cases is collected online. Although a list of data sources is available on the website of the Federal Environmental Agency, no specific reference to data on environmental damages is provided²²². Austria does not appear to have introduced mandatory financial security for liabilities under the ELD²²³.

The 2019 EIR recommended to Austria to improve financial security for liabilities and ELD guidance, and publish on environmental damage. Since 2019, Austria made no progress on those issues.

2022 priority actions

- Ensure the availability of information on the implementation of legislation on nature and nitrates is provided and targeting farmers and duty-holders..
- Improve public information on measures to tackle environmental crime, including follow-up actions to inspections or complaints.
- Encourage public bodies at federal and regional level to publicise options for public reporting of environmental concerns or infringements.

Effectiveness of environmental administrations

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

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Administrative capacity and quality

Legislative competence is shared between the federal and the regional level, and implementation is spread over the federal, regional, district and municipal levels. All levels must work effectively with each other within a system of multi-level governance. Compliance on environmental issues is generally good, but experience arising from certain infringements shows that there are few mechanisms to encourage under-performing

https://www.umweltbundesamt.at/umweltinformation/opendata.
 https://ec.europa.eu/environment/legal/liability/;
 https://ec.europa.eu/environment/legal/liability/pdf/Annex-I Austria.pdf.

regional authorities to reach the level of those demonstrating best practice.

Austria ranks sixth out of 180 in the 2020 Environmental Performance Index²²⁴ moving up two places.

Coordination and integration

As mentioned in the 2019 EIR, the transposition of the revised EIA Directive provides an opportunity to further streamline their regulatory framework on environmental assessments. The Commission encourages streamlining of environmental assessments to reduce duplication and avoid overlaps in environmental assessments for projects. Streamlining helps to reduce unnecessary administrative burden and accelerates decision-making, provided it is done without compromising the quality of the environmental assessment procedure. As Austria is a federal state and competence for many environmental issues is spread over various administrative levels, a 'one-stop shop' principle is difficult to implement. However, Austria has introduced a streamlined procedure for the EIA, Habitats and Water Framework Directives.

Reforms through the Commission's Technical Support Instrument

The Commission supports environmental implementation and the green transition through the EU financing programmes. But it also gives support by granting technical assistance such as through the TSI and peer-to-peer learning through Taiex peer-to-peer exchanges.

The Commission's TSI supported several environment-related projects in Austria, including a project related to strengthening environmental crime enforcement in 2020. Austria participated in the Commission's green budgeting TSI started in 2021. Under the TSI 2022, a project will support the establishment of a roadmap for a future comprehensive raw material balance.

TAIEX EIR peer-to-peer

The Commission launched the TAIEX EIR Peer-to-Peer tool²²⁵ to facilitate learning between environmental authorities. Austria participated in a multi-country EIR workshop on zero pollution in 2022 and on ammonia reducing technology and measures in 2021 as well as in

²²⁴ Yale Center for Environmental Law & Policy, <u>Environmental</u> Performance Index, 2020

²²⁵TAIEX - Environmental Implementation Review - PEER 2 PEER - Environment - European Commission (europa.eu).

an online workshop on permit exemptions under the Waste Framework Directive in 2020.