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Country Report - PORTUGAL
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Communication from the Commission to the European Parliament, the
Council, the European Economic and Social Committee and the
Committee of the Regions
Environmental Implementation Review 2019: A Europe that protects its
citizens and enhances their quality of life

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**The EU Environmental Implementation Review 2019
Country Report - PORTUGAL**

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European Economic and Social Committee and the Committee of the Regions**

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

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Executive summary

Portugal and the Environmental Implementation Review (EIR)

In the 2017 EIR report, the **main challenges** identified with regard to implementing EU environmental policy and law in Portugal were:

- Improving **waste management** and developing the potential of the circular economy;
- Enhancing the effective protection of the **Natura 2000** network; and
- Following up the implementation of the **marine strategies** to meet a good environmental status of marine waters.

Portugal organised an **EIR National Dialogue** in Lisbon on 14 March 2018. There was widespread participation by public authorities, with a general debate on the environmental implementation review exercise and its main findings for Portugal. The main focus was on three topics: circular economy, natural capital and environmental governance.

In 2017 the Commission launched the TAIEX-EIR Peer-to-Peer (**EIR-P2P**), a practical new tool enabling environmental authorities to learn from each other. Portugal has already benefited from the EIR-P2P in the fields of waste management, air quality and forest management.

Progress on meeting challenges since the 2017 report

The 2019 EIR report shows that **substantial progress** has been made on the transition to a **circular economy**. Portugal has approved the National Action Plan for the Circular Economy (2017-2020), adopted by the Portuguese Government in December 2017. However, the Commission's 'Early Warning Report' (2018) states that Portugal is considered at risk of failing to meet the EU target of recycling 50% of its municipal waste by 2020. Further efforts to improve **waste management** are therefore needed.

As regards **nature conservation**, in May 2018 the Portuguese Government adopted the National Strategy for Nature Conservation and Biodiversity. However, further efforts are needed to complete the adoption of suitable measures to protect and manage the Natura 2000 sites in the Atlantic and Mediterranean biogeographical regions.

Some progress has been made with **marine conservation**, notably on implementing marine strategies to achieve good environmental status for marine waters.

There has been **some progress** with **water management**, including improvement in the amount and quality of information with the adoption of the second cycle of River Basin Management Plans, in accordance with the Water Framework Directive. However, many challenges remain, including protection of the quantitative status of groundwater, improving water governance, and the need to close gaps in water investment, especially as regards wastewater.

Moreover, **sustainable development** could be further mainstreamed into other policy areas, including the land planning.

Examples of good practice

In addition to the points of excellence mentioned in the 2017 EIR country report, other good practices on environmental implementation can be highlighted in the case of Portugal:

- Several good examples in the field of environmental governance:
 - iFAMA, the Single Platform for Inspection and Monitoring in the areas of Agriculture, Sea and Environment, an administrative simplification measure introduced in 2017, contributing to improve the efficiency of public services and its relation with citizens and companies.
 - E-GAR, a platform for information accompanying waste shipments that replaces four paper documents by a single digital one, implemented in 2017.
 - The Single Environmental Permitting Platform, developed to operationalise the Single Environmental Permitting Regime, which simplifies, standardises and links many environmental permits.
- The Environmental Funding Program (*Fundo Ambiental*), an important tool for investment in the fields of climate change, circular economy and habitat valorization.
- The measures adopted by the Portuguese Government to promote a more sustainable use of resources in Public Administration, with a focus on paper and single-use plastics, and limiting the acquisition of fossil fuel by the central administration and public companies as of January 2019.

Part I: Thematic Areas

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

Measures towards a circular economy

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

Following the adoption of the Circular Economy Action Plan in 2015 and the setting up of a related stakeholder platform in 2017, the European Commission adopted a new package of deliverables in January 2018¹. This included additional initiatives such as: (i) an EU strategy for plastics; (ii) a Communication on how to address the interplay between chemical, product and waste legislation; (iii) a report on critical raw materials; and (iv) a framework to monitor progress towards a circular economy².

The circular economy monitoring framework tracks key trends and patterns to understand how the various elements of the circular economy are developing and whether enough action has been taken. The framework comprises 10 key indicators which cover each phase – production, consumption, waste management and secondary raw materials – and economic aspects (investments, jobs, gross value added and innovation.)

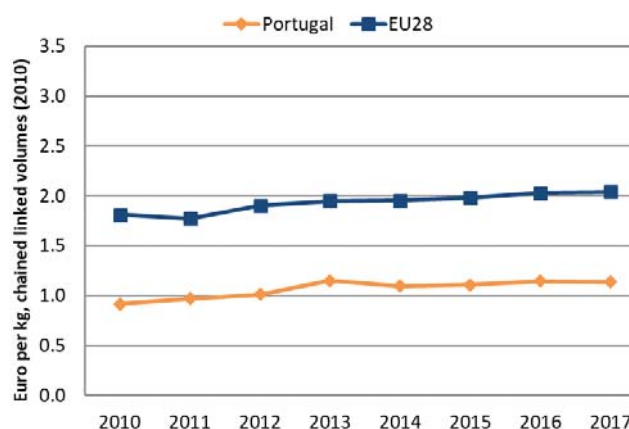
Among other key indicators, the circular (secondary) use of material in Portugal stood at just 2.1% in 2016 (EU-28 average: 11.7%). However, Portugal performs above the EU-28 average as regards the number of people employed in the circular economy (1.82% of total employment in 2016; the EU-28 average is 1.73%).

According to the 2017 Special Eurobarometer 468 on the attitudes of EU citizens to the environment, 91% of Portuguese people were very concerned about the impact of plastic products (EU-28 average: 87%). 94% were worried about the impact of chemicals, against the EU-28 average of 90%³. There appears to be very strong

support in Portuguese society for circular economy initiatives and environmental protection measures.

As regards how efficiently the economy uses material resources to produce wealth, Portugal's resource productivity was EUR 1.14/kg (EU average: EUR 2.04 /kg) in 2017⁴. As Figure 1 shows, there is plenty of room for improvement here.

Figure 1: Resource productivity 2010-2017⁵



In 2015 the Portuguese Government adopted the Green Growth Commitment (GGC). This strategy grew out of the Coalition for Green Growth launched in 2014. The GGC encompassed 16 sectors, with over 100 initiatives and 14 targets for 2020 and 2030.

The 2017 EIR highlighted the importance of implementing the numerous measures included in this national strategy on green growth, which was designed to reorient the country's economic development.

The GGC monitoring framework is already established and delivering the assessment of the country's performance. However, the rapid evolution of environmental policies, towards a more circular and low-carbon economy, called for adjustments in the GGC's framework of measures as well as stakeholder interaction.

¹ European Commission, [2018 Circular Economy Package](#).

² [COM\(2018\) 029](#).

³ European Commission, 2017, [Special 486 Eurobarometer](#), "Attitudes of European citizens towards the environment".

⁴ Resource productivity is defined as the ratio between gross domestic product (GDP) and domestic material consumption (DMC).

⁵ Eurostat, [Resource productivity](#)

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Thus, the model of operation of the Coalition is now undergoing a review, to render it more flexible in accompanying rapid policy evolution without compromising its original goals.

A natural sequence to this work was the focus on circular economy. It was initiated by raising the national awareness for this subject, with the launch of the ECO.NOMIA webportal⁶ in late 2016. During 2017 an internal group developed the terms of the National Action Plan for Circular Economy 2017-2020 (PAEC)⁷ which was adopted in December of that year. The plan is intended to be a kick-off to policy actions in support of the Portuguese transition towards a circular economy, and is set to be reviewed at the end of 2020.

The PAEC assumes three levels of operation: the national level, sectoral level and regional level.

The national level, is routed on the main pillars of the EU Action Plan. It presents seven areas in which policy orientations are embedded, which are: i) design and re-use; ii) market; iii) education; iv) food waste; v) waste and by-products; vi) water and nutrients; vii) research and innovation.

Some of the policies already deployed include, for example, the support to local repair networks, an environmental education strategy, fiscal instruments for addressing single-use plastics or a national agenda for R&I science in circular economy.

The sectoral level opted to focus on sectors that were either particularly resource-intensive (e.g. construction), or had a high exposure to exports (e.g. textiles, tourism), or represented a high internal market impact (e.g. consumer goods, public procurement). For this case the focus has been placed on raising the awareness among the sectors of activity and working the circularity within the framework for green public procurement.

Finally, the regional level seeks to complement the national action by encouraging and guiding the regional coordination & development agencies to draw their own agendas on circular economy, rooted on their regions socioeconomic context and environmental specificities. For that goal, the focus was turned on promoting more 'circular cities', industrial symbiosis and ecosystems.

There has been a conscious effort to include circular economy principles, but also territorial valorization and decarbonization, in other political domains, some by direct reference in strategic documents and others, although they do not explicitly refer it, do contribute

equally to these objectives (e.g. SIMPLEX program for dematerialization of government procedures).

Examples of this integration can be found in other important policy frameworks, such as the National Environmental Education Strategy or the Agenda for Research and Innovation in Circular Economy.

The National Environmental Education Strategy for 2017-2020 (ENEA 2020) was adopted in 2017 and aims to establish a collaborative, strategic and cohesive commitment to environmental literacy in Portugal. It fosters an inclusive and visionary citizenship that leads to a change in civilizational paradigm, translated into sustainable models of conduct in all dimensions of human activity.

The actions envisaged in this Strategy are based on the following pillars: i) Decarbonise society; ii) Make the economy circular; iii) Valuing the territory.

Actions envisaged in ENEA 2020 contribute for active citizenship in the field of sustainable development and for the construction of a just, inclusive, low-carbon, rational and efficient on the use of resources, which combines the equity between generations, the quality of life of citizens and the economic development.

Portugal has a thematic agenda for Research and Innovation in Circular Economy. This agenda is another strategy for a transition to the circular economy that enhances sustainability, resilience, inclusion and advantage of society.

The agenda is a multi-dimensional research guide for research and the search and response prospects for the country in a medium- and long-term attempt (2030): i) Design and development of new products, processes and services; ii) Sustainable management of resource cycles; iii) Governance and territory; iv) New business models, behavior and consumption

The *Fundo Ambiental* (Environmental Fund), created in 2016, continues to support circular economy projects. It began operating in 2017 and in that year alone over EUR 41 million were invested in projects related to climate change, circular economy, nature conservation and environmental awareness.

The number of EU Ecolabel products and EMAS-licensed⁸ 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.

⁶ The [ECO.NOMIA initiative](#) was launched by the Ministry for the Environment to promote the circular economy.

⁷ Approved by Resolution of the Council of Ministers n. 190-A/2017, published on 11 December 2017.

⁸ EMAS is the European Commission's Eco-Management and Audit Scheme, a programme to encourage organisations to behave in a more environmentally sustainable way.

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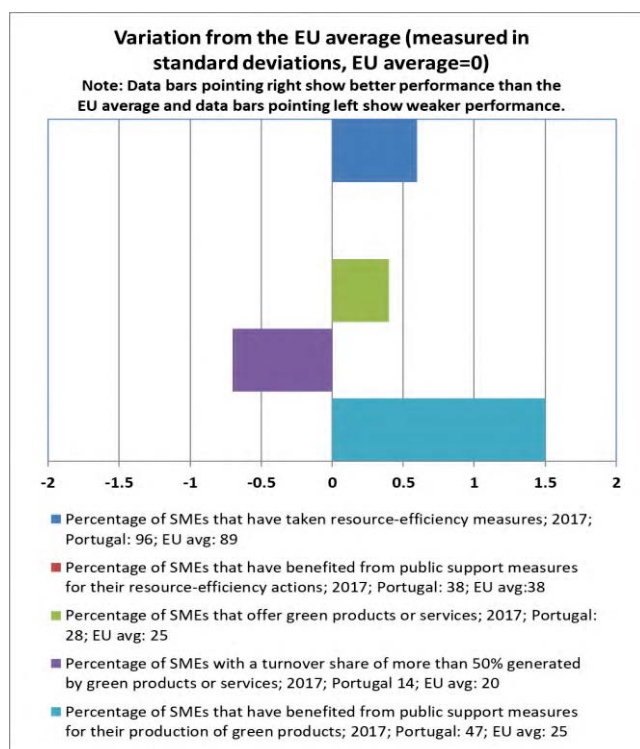
By September 2018, Portugal had 1 179 products and 20 licences registered in the EU Ecolabel scheme out of 71 707 products and 2 167 licences in the EU, showing a low take-up of these licences⁹. Moreover, 53 organisations from Portugal are currently registered in EMAS¹⁰.

SMEs and resource efficiency

Portuguese SMEs continue to score in line with the EU-28 average as regards the environmental dimension of the Small Business Act (see Figure 2).

Less firms than in other countries are developing a distinct 'green' profile, generating more than half their turnover from green products and services. However, more benefit from public support measures for their production of green products.

Figure 2: Environmental performance of SMEs¹¹



The latest Eurobarometer, entitled 'SMEs, resource efficiency and green markets'¹², asked companies about recent additional resource efficiency measures and those planned for the next two years. The responses were compared with those obtained in 2015. Portugal's results

⁹ European Commission, [Ecolabel Facts and Figures](#).

¹⁰ European Commission, [Eco-Management and Audit Scheme](#).

¹¹ European Commission, [2018 SBA fact sheet - Portugal](#), p. 14

¹² Flash Eurobarometer 456 'SMEs, resource efficiency and green markets' January 2018. The 8 dimensions were Save energy; Minimise waste; Save materials; Save Water; Recycle by reusing material internally; Design products easier to maintain, repair or reuse; Use renewable energy; Sell scrap materials to another company.

show a marked difference between measures taken recently and those envisaged. Only 5 % of Portuguese companies have taken no resource efficiency measures at all (the second lowest rate in the EU-28). However, 44 % (28 % more than in 2015) have no such plans for the near future. In the past, priority was given to saving inputs (water, energy and materials), mentioned by 63-75% of firms. In the context of plummeting ambition (around 30% in nearly all dimensions), respondents' priority for future action remains saving energy.

Only 12% of Portuguese companies (against 22% in the EU-28, ranging from 3% to 8%) relied on external support in their efforts to be more resource-efficient (a very low value). In the aftermath of the financial crisis, private funding provided by friends and relatives disappeared almost completely (only 4 % mentioned such funding, against 36 % two years previously). Half of respondents had recourse to private sector finance. Similarly, private sector consultancy grew in importance (rising by 9% to 38%), while business associations lost out significantly (-17% now mentioned by 13%).

The EU-28 companies polled regard grants and subsidies as playing the most important role in helping make firms resource-efficient (36%). 20-23% of the firms surveyed mention technical or financial consultancy, technology demonstration and better cooperation among companies as useful in promoting resource efficiency. On the other hand, 20% of respondents say none of these would be any help.

Just 19 % of Portuguese companies mention grants and subsidies as useful help. Demonstration of new technologies (29%) and help for cooperation with other firms (23%) are seen as significant. Other forms of assistance, however, are viewed more critically than in the rest of the EU-28.

Portuguese companies have limited ambition as regards further action to boost resource efficiency. Direct cost savings may have motivated past action, particularly during the credit crunch. If this trend is confirmed, Portugal will need to re-ignite its ambition to improve resource efficiency and make products and services more environmentally friendly.

Eco-innovation

Portugal ranked 14th on the European innovation scoreboard for 2018, a fall of 1.5% since 2010¹³.

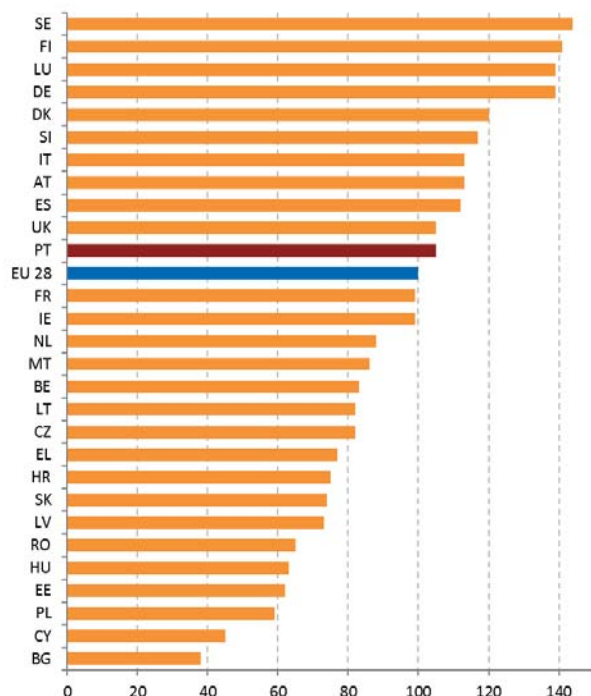
However, the European eco-innovation scoreboard for 2017 ranked Portugal 10th, with a total score of 105 (see Figure 3).

¹³ European Commission, [European innovation Scoreboard 2018](#).

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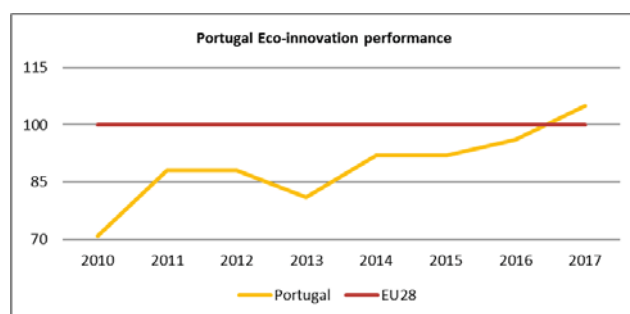
It is worth noting that Portugal is continuing its upward trend (96 in 2016, 92 in 2015 and 2014, 81 in 2013 and 88 in 2012).

Figure 3: 2017 Eco-Innovation Index (EU=100)¹⁴



Moreover, Portugal is above the EU-28 average score for the first year ever, with an Eco Index of over 100 (see Figure 4).

Figure 4: Portugal's eco-innovation performance



The four main barriers to more eco-innovation in Portugal are:

- Lack of private-sector leadership or investment in the key sectors of waste management and water services;
- In many areas, including R&D, Portugal still depends too much on public institutions; traditionally, only

large corporations have significant in-house R&D activities;

- Portugal is relatively rich in mineral resources, making it less pressing for sectors like construction to maximise resource efficiency;
- There is no specific policy programme to promote eco-innovation. The concept is often lumped together with concepts such as the circular economy and the green economy.

However, there are factors that contribute positively to the eco-innovation and the circular economy agenda, such as: (i) significant private-sector leadership and investment in eco-innovation efforts in telecoms and energy; (ii) strong political support for eco-innovation and circular economy agendas from the government and from regional and local authorities; (iii) regulatory and financial mechanisms designed to support eco-innovation and the circular economy.

Those sectors on which eco-innovation could have more of an impact and which have stood out most in 2016-2017 are: (i) construction; (ii) food and agriculture; and (iii) textiles.

Examples of eco-innovation projects in these sectors include the installation of a low-temperature belt dryer in the Intercement Cimpore cement plant; options for indoor farming needs provided by CoolFarm; the Jindo Burel sneakers made by BERG using only recyclable and locally-sourced natural materials; and the GoodAfter online supermarket, which is paving the way for large-scale food waste prevention and recycling¹⁵.

2019 priority action

- Implement the measures set out in the National Action Plan for the Circular Economy 2017-2020 (PAEC) properly and in good time.

Waste management

Turning waste into a resource is supported by:

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

¹⁴ [Eco-innovation Observatory](#): Eco-Innovation scoreboard 2015

¹⁵ European Commission, Eco-Innovation Observatory, Country profile 2016-2017: Portugal.

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This section focuses on management of municipal waste¹⁶ for which EU law sets mandatory recycling targets¹⁷.



After a downward trend, municipal waste¹⁸ generation in Portugal has started to increase in recent years. It came to 487 kg/year/inhabitant in 2017, although it remains similar to the EU average (487 kg/year/inhabitant), as Figure 5 shows.

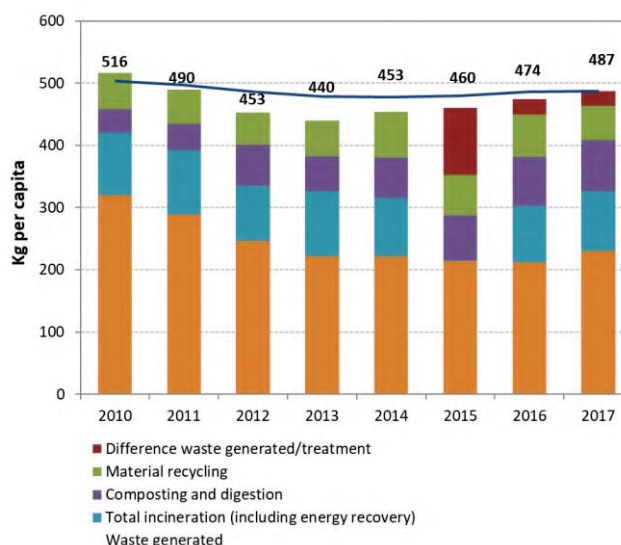
Figure 5 also shows municipal waste by treatment, in terms of kilos per capita. There has been a slight increase in recycling and composting and a small shift away from incineration and landfilling. Incineration (with energy recovery) comes to 20% of the total, although these figures are still provisional; while landfilling accounts for 47% (far above the EU average of around 24%). The situation varies by region, but managing waste efficiently remains an important challenge for Portugal.

¹⁶ Municipal waste consists of mixed waste and separately collected waste from households and from other sources, where such waste is similar in nature and composition to waste from households. This is without prejudice to the allocation of responsibilities for waste management between public and private sectors.

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. These targets will be taken into consideration to assess progress in future Environmental Implementation Reports.

¹⁸ Municipal waste consists of waste collected by or on behalf of municipal authorities, or directly by the private sector (business or private non-profit institutions) not on behalf of municipalities.

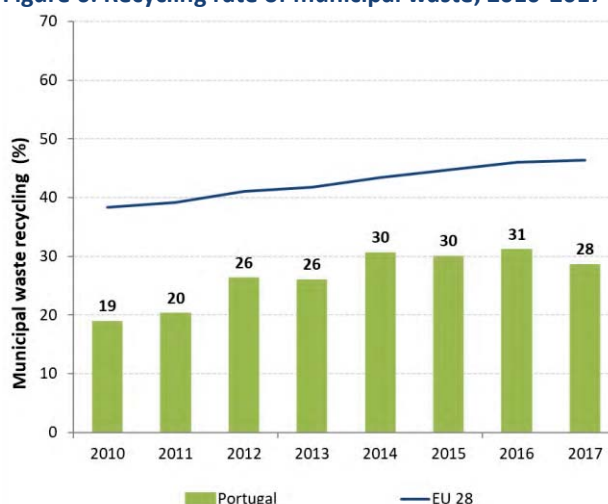
Figure 5: Municipal waste by treatment in Portugal, 2010-2017¹⁹



Portugal has made slow but steady progress over the past decade on stepping up its recycling rate and diverting municipal waste from landfilling. However, the recycling rate for municipal waste in 2017 was 28 % (11% of which was recycled, while 17% was composted), after a decrease since 2016. This is well below the EU average of 46 % (EU 2017) and shows no improvement since 2014.

Figure 6 shows that Portugal needs to step up investment in recycling to meet the EU 2020 recycling target²⁰.

Figure 6: Recycling rate of municipal waste, 2010-2017²¹



¹⁹ Eurostat, [Municipal waste by waste operations](#).

²⁰ Member States may choose a different method from the one used by ESTAT (and referred to in this report) to calculate their recycling rates and track compliance with the 2020 target of 50% recycling of municipal waste.

²¹ Eurostat, [Recycling rate of municipal waste](#).

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This is why the Commission's Early Warning report²² lists Portugal as one of the countries at risk of missing the EU 2020 target of recycling 50 % of municipal waste. The report lists key priority measures which Portugal should take to close the implementation gap. Moreover, additional efforts will be necessary to meet recycling targets after 2020.

In 2014 Portugal approved the National Waste Management Plan 2014-2020²³ and the Strategic Plan for Municipal Solid Waste for the mainland (PERSU 2020)²⁴. The main objective of the PERSU 2020 is to determine the roadmap needed to meet the EU's recycling and reuse target for municipal waste (50%). A revised plan with a more forward looking perspective (PERSU 2020+) is under preparation.

Portugal also has a substantial amount of mechanical-biological treatment (MBT) capacity for treating residual waste. The bio-stabilised outputs from this system are also counted towards the recycling targets, which explains the relatively high composting rate. However, this possibility will be phased out from 2027 in accordance with the revised Waste Framework Directive (WFD)²⁵. Recent assessment of the PERSU 2020 examined specifically the barriers linked to the overreliance of the waste management system on MBT facilities.

Opportunities for waste prevention and recycling are thus not yet fully developed in Portugal. The proportion of incinerated and landfilled municipal waste, which remains high, is holding back the transition to a circular economy. For instance, a particular focus has to be made on the Azores Islands in supporting waste prevention and recycling.

Portugal will have to expand the separate collection of municipal waste and move away from a model that overrelies on sorting mixed waste, especially if it is to progress towards meeting the new recycling targets (55 % by 2025, 60 % by 2030, 65 % by 2035). In addition, the assumptions underpinning calculations on the expected contribution of MBT facilities to meeting the 2020 recycling target need to be reviewed.

The underlying causes for the current shortfall from EU waste targets are:

- Insufficient incentives for managing waste according to the waste hierarchy (including a low landfill fee

- and low waste charges for households);
- Lack of coordination between the various tiers of the public administration;
- Insufficient door-to-door separate collection of waste;
- Relatively limited implementation of systems for collecting source-segregated biowaste from households;
- Insufficient financial contribution by the extended producer responsibility (EPR) systems.

To tackle these shortcomings, Portugal has been actively developing the following initiatives:

- It has reviewed its landfill tax (and a similar incineration tax), plus the recycling targets for municipalities, with a gradual increase in the run-up to 2020. This is positive, although the charges are too low to change people's behaviour.
- Portugal is channelling EU funds from operational programmes to coordinate the efforts made by the various parties involved in the waste management chain. Projects are valued if they include measures and organisations that aim to meet targets.
- Efforts have been made to step up the separate collection of waste. There are also operational programmes to fund specific projects involving door-to-door collection and pay-as-you-throw (PAYT) schemes.
- Portugal has implemented some EPR schemes for specific flows of waste: waste and packaging, waste electrical and electronic equipment, batteries and accumulators, end-of-life vehicles, used tires and used mineral oils.

However, there is clear scope for developing targeted policy instruments to support the transition to a more circular economic model. The key priority actions identified as part of the early warning report focus on: (i) the need to step up separate collection, (ii) the use of economic instruments (including landfill fees and household waste charges), and (iii) what the extended producer responsibility packaging scheme adds to the cost of operating the system. In addition, a system should be developed at national level to provide municipalities with technical support with organising and managing collection services.

It is worth to mention that representatives from Evora (Portugal) went on a TAIEX-EIR P2P study visit to Ljubljana (Slovenia) in September 2018. There was also a reciprocal expert mission to learn about waste management²⁶.

²² 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](#).

²³ Plano Nacional de Gestao de Residuos para o horizonte 2014-2020. Diário da República 16.03.2015.

²⁴ Plano Estratégico para os Residuos Urbanos (PERSU 2020) para o Portugal continental. Diário da República 17.09.2014.

²⁵ [Directive \(EU\) 2018/851](#) amending Directive 2008/98/EC.

²⁶ To give experts from the Alentejo region the opportunity to learn from the best practice of Ljubljana and get first-hand expert advice about waste management.

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2019 priority actions

- Introduce new policy instruments, including economic instruments, to promote prevention, make reuse and recycling more economically attractive and shift reusable and recyclable waste away from incineration (by, for instance, increasing landfill and incineration charges, considering the introduction of a residual waste tax, and raising the charge on municipalities for failing to meet recycling targets).
- Improve and extend separate collection of waste, including bio-waste. Introduce 'pay-as-you-throw' systems once the door-to-door collection services (including bio-waste collection systems) are operating effectively, and improve the operation of extended producer responsibility systems, in line with the general minimum requirements on EPR²⁷; and develop support programmes for municipalities.
- Review treatment infrastructure requirements, taking into account the changes in waste collection and the need to move away from mixed waste treatment.

Climate change

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

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

For emissions not covered by the EU ETS, Member States have binding national targets under the Effort Sharing legislation. Portugal had lower emissions than its annual emission allocations (AEAs) in each of the years 2013-2016. According to preliminary data, emissions in 2017 were slightly lower than the AEA. For 2020, Portugal's national target under the EU Effort Sharing Decision is to avoid increasing emissions by more than 1 % compared to 2005. For 2030, Portugal's national target under the

Effort Sharing Regulation will be to reduce emissions by 17 % compared to 2005.

Figure 7: Change in total greenhouse gas emissions 1990-2017 (1990=100%)²⁸.

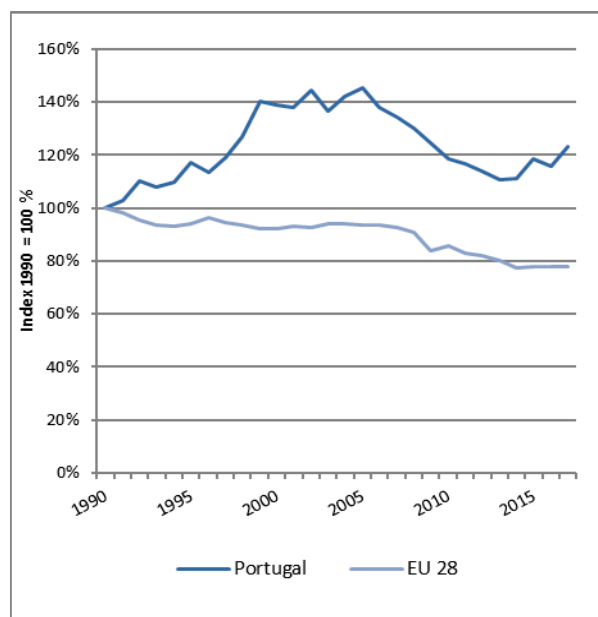
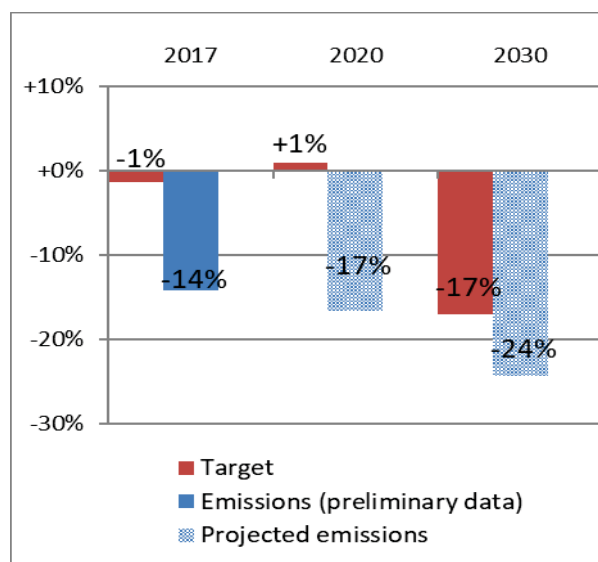


Figure 8: Targets and emissions under the Effort Sharing Decision and Effort Sharing Regulation²⁹



²⁷ Set out in [Directive \(EU\) 2018/851](#) amending Directive 2008/98/EC.

²⁸ Annual European Union greenhouse gas inventory 1990–2016 ([EEA greenhouse gas data viewer](#)). Proxy GHG emission estimates for 2017 Approximated EU greenhouse gas inventory 2017 (European Environment Agency). Member States national projections, reviewed by the European Environment Agency.

²⁹ Proxy GHG emission estimates for 2017 Approximated EU greenhouse gas inventory 2017 (European Environment Agency). Member States national projections, reviewed by the European Environment Agency.

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The Portuguese Government announced at COP 22 the national objective to reach carbon neutrality by 2050. To this end, a new modelling exercise with a 2050 horizon is under preparation to identify and analyse the implications associated with cost-effective trajectories.

The integrated national energy and climate plan (NECP) for the years 2021–2030 is to be drawn up in conjunction in close articulation with the Roadmap. The work builds on long-term energy and climate plans and roadmaps, including the Low Carbon Roadmap for 2050, the Portugal Green Growth Commitment and the National Programme for Climate Change 2020/30 set up in 2015 (PNAC 2020/2030). Portugal's low carbon development strategy was initially published in 2012 as a result of a Ministerial decision in 2010. The so-called "Roteiro Nacional de Baixo Carbono 2050" (RNBC) has been inspired by the EU Roadmap towards a low carbon economy in 2050 in order to identify economically and technically feasible trajectories to a low carbon economy in 2050 for Portugal. The RNBC has not been formally approved by the government and therefore it has no legal status. However, it currently stands as an overall long term guidance document for climate policy.

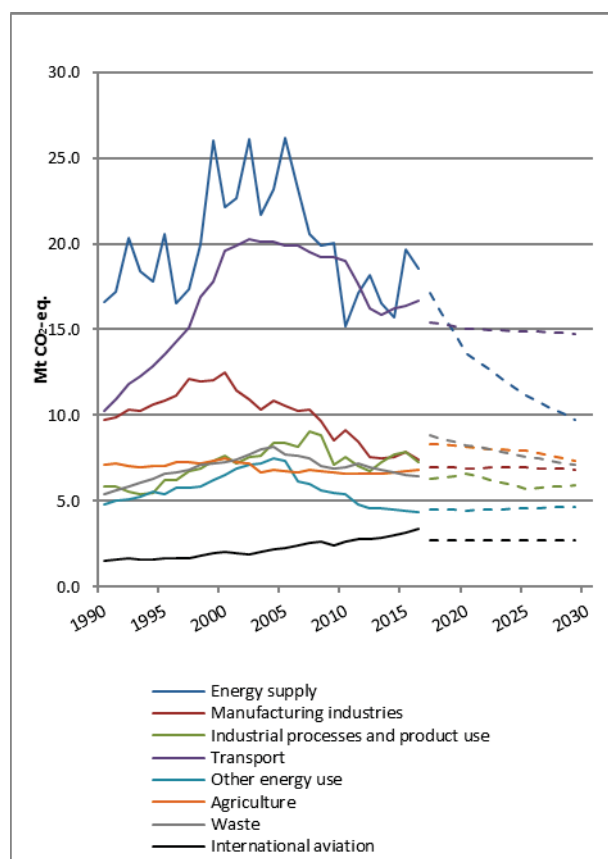
Transport represents almost a quarter of the EU's GHG emissions and is the main cause of air pollution in cities. Transport emissions in Portugal increased by 5 % from 2013 to 2016.

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

The accounting of GHG emissions and removals from forests and agriculture is governed by the Kyoto Protocol. Preliminary accounting for 2013-2016 shows net credits of, on average, -7.7 Mt CO₂-eq per year, which corresponds to 6.7% of the EU-28 accounted sink of -115.7 Mt CO₂-eq. Portugal is one of eight EU Member States which exceed the cap of 3.5% from emissions of the base year (1990).

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

Figure 9: Greenhouse gas emissions by sector (Mt. CO₂-eq.). Historical data 1990-2016. Projections 2017-2030³⁰



In Portugal, a First National Adaptation Strategy (ENAC) was adopted in 2010 (2010-2015) and revised in 2015 (ENAC 2020 for 2015-2020). There is a significant shift towards the development of Local Adaptation Strategies, with the project ClimAdaPT.Local having led to 27 local adaptation strategies. A National Adaptation Action Plan (NAP) based on the selection of actions foreseen in the biannual activity planning from some sectors and transversal areas is currently under public consultation.

Nine priority sectors have been identified: agriculture, biodiversity, economy, energy, forests, health, safety of people and assets, transport and communications, and coastal areas/sea. Presently the monitoring has been guaranteed for reporting purposes through ENAC's Coordination Group. A more formal procedure is addressed in ENAC 2020 in order to establish a monitoring and review system for the overall adaptation process, particularly with close collaboration with sectorial groups following a mainstreaming approach.

³⁰ Annual European Union greenhouse gas inventory 1990–2016 ([EEA greenhouse gas data viewer](#)). Proxy GHG emission estimates for 2017 Approximated EU greenhouse gas inventory 2017 (European Environment Agency). Member States national projections, reviewed by the European Environment Agency.

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The total revenues from the auctioning of emission allowances under the EU ETS over the years 2013-2017 were EUR 415 million. 85 % of the auctioning revenues have been spent on climate and energy purposes. National legislation stipulates that 100 % of the revenues should be spent on climate related purposes.

2019 priority action

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

2. Protecting, conserving and enhancing natural capital

Nature and Biodiversity

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

Biodiversity strategy

The Portuguese Government approved the country's National Strategy for Nature Conservation and Biodiversity for 2030 (NSNCB)³¹ on 5 April 2018.³²

The NSNCB Vision is: to achieve a good conservation status of the natural heritage by 2050, based on the progressive appropriation by society of the design of biodiversity, by both acknowledging its significance for the country's development and pursuing management models that advocate a closer approach to those working on the ground in the territories.

Taking into account the 2030 Sustainable Development Agenda, the Strategic Plan of the Convention on Biological Diversity and the European Union Strategy for Biodiversity, the NSNCB provides a framework for addressing the challenges Portugal will face between 2018 and 2030.

The principles underpinning the previous national strategy have been reinterpreted in the light of the current challenges. There are three strategic aims:

- i. to improve the conservation status of habitats and species;
- ii. to instil in society a sense of responsibility for the natural environment and biodiversity;
- iii. to promote recognition of the value of the natural heritage and integrate this awareness into a number of policies, strategies and practices.

The new Strategy sets out goals (30) to be achieved by 2030, ranked by priority. Each goal is broken down into over 107 measures, each with indicators, priorities, deadlines, means of verification, tools and responsible entities.

³¹ Estratégia Nacional de Conservação da Natureza e da Biodiversidade 2030, Resolução do Conselho de Ministros n.º 55/2018 - Diário da República N.º 87 Série I, de 7 de maio.

³²The Portuguese Government, [National Strategy for Nature Conservation and Biodiversity for 2030](#)

Setting up a coherent network of Natura 2000 sites

Portugal hosts 99 habitat types and 325 species covered by the Habitats Directive. The country also hosts populations of 80 bird species listed in the Birds Directive Annex I.

By November 2017, Natura 2000 areas accounted for 20.6% of Portugal's land area (EU average: 18.1%), with Birds Directive Special Protection Areas (SPAs) covering 10% (EU average 12.3%) and Habitats Directive Sites of Community Importance (SCIs) covering 17% (EU average: 13.8%).

Designating Natura 2000 sites and setting conservation objectives and measures

The most recent assessment of the SCI component of the Natura 2000 network shows that there are insufficiencies in designation. Especially the marine components of the network³³ still shows a considerable insufficiency, despite the fact that there has been a moderate increase of the protected marine area in 2017.



The 6-year deadline which the Habitats Directive sets for designating special conservation areas (SACs) and establishing appropriate conservation objectives and measures has expired. Portugal has already designated the Sites of Community Importance (SCIs) of the Macaronesian biogeographical region as Special Conservation Areas (SACs).

³³ For each Member State, the Commission assesses whether the species and habitat types in Annexes I and II to the Habitats Directive, are sufficiently represented by the sites designated to date. This is expressed as a percentage of species and habitats for which further areas need to be designated in order to complete the network in that country. [The current data](#), which were assessed in 2014-2015, reflect the situation up until December 2013.

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However, no special conservation areas have yet been designated for the Sites of Community Importance in the Atlantic and Mediterranean biogeographical regions (most of the Member States have already done this, at least in part). Moreover, Portugal has defined management plans for some SCIs only. This is why the Commission has decided to bring the infringement procedure opened on this matter before the Court of Justice of the European Union.

Therefore, Portugal has yet to complete its Natura 2000 Network, particularly the marine network, and to provide for the necessary management measures of the sites already designated.

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

Since Member States report only once every 6 years on progress made under the two directives, there is nothing new to report on the state of natural habitats and species or on improvements in the conservation status of species and habitats in Portugal, as compared with the 2017 EIR.

As noted in the previous EIR report, 29% of biogeographic assessments of habitats were favourable in 2013 (EU-27: 16%). 58% are considered unfavourable–inadequate (EU-27: 47%), while 8% are unfavourable–bad (EU-27: 30%). As for species, 19% of assessments were favourable in 2013 (EU-27: 23%), 31% were unfavourable-inadequate (EU-27: 42%) and 10% were unfavourable-bad (EU-27: 18%). As regards birds, 43% of breeding species showed short-term increases or stable population trends (for wintering species, this figure was 57%).

Overall, the status of natural habitats and species covered by the Habitats Directive has improved in Portugal, although many are still in a poor unfavourable.

Progress in following up the 'suggested actions' in this area that were set out in the 2017 EIR has been limited. Therefore, they overall remain valid for the 2019 EIR.

2019 priority actions

- Complete the Natura 2000 site designation process, including in the marine part, and put in place clearly defined conservation objectives and the necessary conservation measures for the sites.
- Continue to develop and promote smart and streamlined implementation approaches, especially as regards appropriate assessment procedures and species permitting procedures, ensuring the necessary knowledge and data availability and strengthen communication with stakeholders.
- Boost capacity building to improve management of Natura 2000 sites and arrangements for the protection of particular species.

- Strengthen the integration of biodiversity concerns into other policies (in particular in agriculture, but also in fisheries, urban and infrastructure planning and sustainable tourism).

Maintaining and restoring ecosystems and their services

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

The EU has provided guidance on the further deployment of green and blue infrastructure in Portugal³⁴ and a country page on the Biodiversity Information System for Europe (BISE)³⁵. This information will also contribute to the final evaluation of the EU Biodiversity Strategy to 2020.

Several other strategies and plans include green infrastructure activities. For instance, the Natura 2000 Sector Plan, the National Network of Protected Areas, and the various levels of spatial plans and programmes (protected areas, coastal areas, reservoirs, municipal and regional special plans). It is worth to mention also the National Programme on Spatial Planning Policy (PNPOT), together with the National Strategies for Nature Conservation and Biodiversity and for the Oceans, designed to create a network of protected marine areas to reconcile economic activity with protection for estuarine, coastal and oceanic ecosystems.

The Coalition for Green Growth, formed in 2014 by a large number of private and public partners, and the subsequent "Green Growth Commitment" adopted by the Portuguese Government in 2015³⁶ (see Chapter 1), include: (i) work on implementing nature-based solutions against the risk of natural disasters such as floods, (ii) implementing the Business and Biodiversity Strategy, and (iii) promoting agro-industry practices that sustain farming systems of high natural value.

The Lisbon Strategy for 2010-2024 includes green infrastructure activities, such as creating a network of green spaces and green corridors for recreational activities and for protecting, appreciating and promoting biodiversity and natural and cultural landscapes. The

³⁴ European Commission, The [recommendations of the green infrastructure strategy review report](#) and the [EU Guidance on a strategic framework for further supporting the deployment of EU-level green and blue infrastructure](#).

³⁵ [Biodiversity Information System for Europe](#).

³⁶ The Portuguese Government, "[Green Growth Commitment](#)", 2015.

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Master Development Plan for Lisbon aims to ensure the continuity and complementarity of natural and semi-natural systems in the urban territory. The city also has a target to increase 20% of its biodiversity by 2020.

A successful instance of green infrastructure is the Quinta da Granja Urban Park, a multifunctional park that embodies many different visions and caters to a variety of needs, with features such as flowerbeds, a playground, community gardens, woodland and the restored old palace. Also the Quinta do Pisão³⁷, a working farm and large public park developed on abandoned farmland. It attracts both locals and tourists for recreation.

As regards funding for green areas, legislation adopted in 2008 (the Fundamental Network for Nature Conservation – RFCN) established a new economic and financial framework for nature conservation and biodiversity and the Fund for Nature Conservation and Biodiversity (that in 2016 was integrated in the new Environmental Fund). There is also a Permanent Forest Fund (FFP) to finance sustainable forest management. The Operational Programme for Sustainability and Resource Efficiency (POSEUR) allocates funding to projects dealing with biodiversity and ecosystems. There is still scope for encouraging private funding in cooperation with NGOs.

Portugal faces some challenges in implementing green infrastructure: (i) reconciling policies targeting business and policies benefiting the environment more satisfactorily, (ii) improving information to national protected areas managers, populations, economic operators and other stakeholders about the benefits of green infrastructure, and (iii) promoting the socioeconomic growth benefits of green infrastructure, particularly in the urban and rural contexts.

Reporting to the Convention on Biological Diversity (CBD) on resource mobilisation from Portugal is still pending for 2015. Reporting on financial flows to the CBD is important for the position of the EU and its members in the CBD. It also helps support good practice in other countries.

As regards forests, the 2017 EIR stressed that Portugal faces the following challenges: private ownership of most woodland, intensive farming, the spread of the pine wood nematode, and the high risk of forest fires.

Portugal is severely affected by forest fires, owing to more extreme weather conditions and changes in land use. Since 2000, such fires have affected over 29 000 km² (nearly 32% of the country's total area as some areas were affected several times). While the total number of wildfires has fallen over the last 15 years, Portugal still suffers from episodes of catastrophic 'megafires' which

burn very large areas and are almost impossible to extinguish unless weather conditions change. A case in point was 2017, with the worst fire season in Portuguese history in terms of the area burned (about 5 300 km²), damage to property, and, above all, loss of life. Extreme weather events such as heatwaves, severe droughts and strong winds are expected to occur more frequently in the context of climate change.

Policy and management options for reducing forest fires must address their root causes. Changes in land use and forest management favoured the accumulation of large amounts of potential fuel and increased the fire-proneness of forests and therefore also fire risk and magnitude. Examples are abandonment of pastoralism and agriculture, neglect of traditional forest management leading to compact forest and shrub masses or significant expansion of fire prone eucalyptus or pine plantations. Apart from investments into restoring the forests affected, more efforts are hence needed to prevent the outbreak of wildfires and to minimise the conditions for their spread and progression. This should include policies to strengthen forest resilience and avoid highly fire-prone forests, particularly if left unmanaged³⁸.

Portugal is taking measures in this regard. For instance, the National Forest Strategy has been recently updated.

Estimating natural capital

The EU biodiversity strategy calls on Member States to map and assess the state of ecosystems and their services³⁹ in their national territories by 2014, assess the economic value of such services and integrate these values into accounting and reporting systems at EU and national level by 2020.

Portugal has carried out a regional MAES assessment (mapping and assessment of ecosystems) in Alentejo. However, this has yet to be upscaled to national level, and a comprehensive approach is needed. Portugal has a wealth of experience and interest at local level on the part of stakeholders, NGOs and universities, but it is fragmented. The government has launched several initiatives that take account of the importance of ecosystem services and natural capital for growth and jobs: they include the green economy initiative, green tax reforms, approaches based on the economics of ecosystems and biodiversity (TEEB), and ecosystem services assessments.

³⁷Green infrastructure, [The Quinta do Pisão](#).

³⁸ European Commission, [European Semester 2018, Country Report for Portugal](#). SWD(2018) 220, of 7.3.2018.

³⁹ Ecosystem services are benefits provided by nature such as food, clean water and pollination on which human society depends.

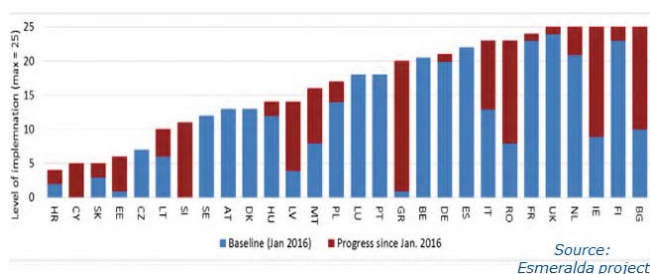
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Regarding ecosystem services assessment, in 2018 was launched the study “Economic Instruments for the Conservation of Biodiversity and Ecosystem Services Assessment in Portugal”. This last study will also have two intervention projects in two protected areas.

A long term process is envisaged to be launched covering the mainland of Portuguese territory. Developing a platform network makes part of this effort.

At the MAES Working Group meeting held in Brussels in September 2018, it emerged that Portugal had not provided any updated information, meaning that no progress had been recorded since January 2016 as regards the level of implementation of MAES (Figure 10). This assessment was made by the ESMEERALDA project⁴⁰. It is based on 27 implementation questions and updated every six months.

Figure 10: Implementation of MAES (September 2018)



Business and biodiversity platforms, networks and communities of practice are key tools for promoting and facilitating natural capital assessments (NCAs) among business and financial service providers, through the Natural Capital Protocol of the Natural Capital Coalition, for instance⁴¹. NCAs help private-sector firms to better understand and evaluate both their own impact and the extent to which they depend on nature. This contributes to the EU's Biodiversity Strategy. Business and biodiversity platforms have been established at EU level⁴² and in a number of Member States, though not all.

The Initiative on Business and Biodiversity⁴³, a Portuguese national platform, aims to promote the introduction of biodiversity strategies in businesses through voluntary arrangements.

2019 priority action

- Continue supporting the mapping and assessment of ecosystems and their services, and the valuation and development of natural capital accounting systems,

⁴⁰ EU project [Esmeralda](#)

⁴¹ Natural Capital Coalition, [Natural Capital Protocol](#)

⁴² Business and Biodiversity, [The European Business and Biodiversity Campaign](#) aims to promote the business case for biodiversity in the EU Member States through workshops, seminars and a cross media communication strategy.

⁴³ [Portugal, Initiative on Business and Biodiversity](#)

through appropriate indicators for monitoring economic progress and further developing ecosystem accounts.

Invasive alien species

Under the EU biodiversity strategy, the following are to be achieved by 2020:

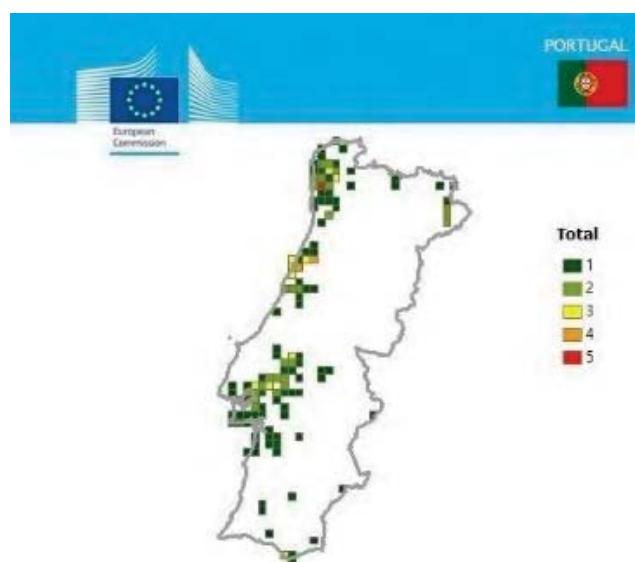
- (i) invasive alien species identified;
- (ii) priority species controlled or eradicated; and
- (iii) pathways managed to prevent new invasive species from disrupting European biodiversity.

This is supported by the Invasive Alien Species (IAS) Regulation, which entered into force on 1 January 2015.

Portugal has submitted one risk assessment for the second update of the Union list of invasive alien species (IAS): the American mink (*Neovison vison*). While the assessment has received a positive opinion from the Scientific Forum, the Committee has not yet ascertained whether the species meets the criteria for listing.

The report on the baseline distribution (Figure 11), for which Portugal did not review its country or grid-level data, shows that of the 37 species on the first Union list, 10 have already been observed in the environment in Portugal. Seven are aquatic species, with water hyacinth (*Eichhornia crassipes*) and parrot's feather (*Myriophyllum aquaticum*) being the most widespread.

Figure 11: Number of IAS of EU concern, based on available georeferenced information for Portugal⁴⁴



⁴⁴ Tsiamis K; Gervasini E; Deriu I; D'amico F; Nunes A; Addamo A; De Jesus Cardoso A. [Baseline Distribution of Invasive Alien Species of Union concern. Ispra \(Italy\): Publications Office of the European Union; 2017, EUR 28596 EN, doi:10.2760/772692](#)

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Between the entry into force of the Union list and 30 October 2018, Portugal has submitted one early detection notification for curly waterweed (*Lagarosiphon major*), as required under Article 16(2) of the IAS Regulation. Eradication measures are ongoing.

Portugal has notified the Commission of the competent authorities responsible for implementing the IAS Regulation, as required by Article 24(2) of the IAS Regulation.

However, Portugal has not informed the Commission of any national provisions on penalties applicable to infringements, as required by Article 30(4) of the IAS Regulation. Nor has it informed the Commission of its lists of invasive alien species of concern to Madeira and the Azores, as required under Article 6(4) of the IAS Regulation.

2019 priority actions

- Portugal is urged to notify the Commission of its penalty provisions.
- Portugal is urged to notify the Commission of its list of invasive alien species of concern to Madeira and the Azores.

Soil protection

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

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

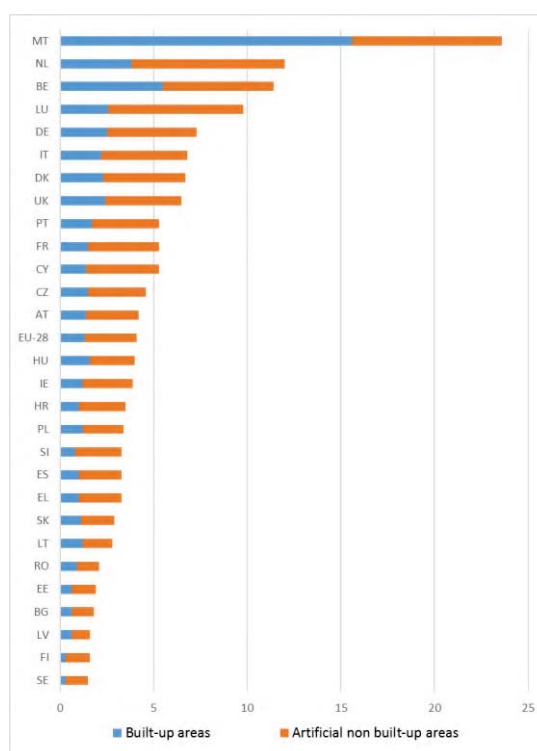
The percentage of artificial land⁴⁵ in Portugal (Figure 12) can be seen as a measure of the relative pressure on nature and biodiversity, and of the environmental pressure on people living in urbanised areas. A similar measure is population density.

Portugal ranks above the EU average as regards artificial land cover with 5.3 % of artificial land (EU-28 average:

4.1 %). The population density is 113.5/km², slightly below the EU average of 118⁴⁶.

In 2014, the National Action Programme to Combat Desertification (PANCD)⁴⁷ was updated (building on a previous version dating back to 1999). PANCD is fully aligned with the vision, the mission, and the strategic and operational objectives and goals of the 10-Year Strategy of the UN Convention to Combat Desertification.

Figure 12: Proportion of artificial land cover, 2015 ⁴⁸



PANCD is a cornerstone strategy for the protection and recovery of affected soil in Portugal. It defines the institutional framework responsible for ensuring implementation and establishing a desertification monitoring system to assess its effects and trends. It defines a strategic vision, setting four strategic objectives: 1) To promote the improvement of the living conditions of people living in areas vulnerable to desertification; 2) To promote the sustainable management of ecosystems in areas vulnerable to desertification and the recovery of affected areas; 3) To generate global benefits and potential synergies with the processes of climate change and biodiversity in sensitive areas; 4) To promote and mobilise resources to implement the UNCCD and PANCD and associated specific objectives, lines of action and indicators.

⁴⁵ 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).

⁴⁶ Eurostat, [Population density by NUTS 3 region](#).

⁴⁷ The Portuguese Government, [Resolution of the Council of Ministers No 78/2014](#)

⁴⁸ Eurostat, [Land covered by artificial surfaces by NUTS 2 regions](#).

Contamination can severely reduce soil quality and threaten human health or the environment. A recent report of the European Commission⁴⁹ estimated that potentially polluting activities have taken or are still taking place on approximately 2.8 million sites in the EU. At EU level, 650 000 of these sites have been registered in national or regional inventories. 65 500 contaminated sites already have been remediated. Portugal has registered 181 sites where potentially polluting activities have taken or are taking place, and already has remediated or applied aftercare measures on 83 sites.

Soil erosion by water is a natural process, which can be aggravated by climate change and human activities such as inappropriate farming practices, deforestation, forest fires or construction work. High levels of soil erosion can make agriculture less productive and can have negative and transboundary impacts on biodiversity and ecosystem services, and on rivers and lakes (increased volume of sediments, transport of contaminants). According to the RUSLE2015 model⁵⁰, Portugal has an average annual soil loss rate by water of 2.31 tonnes per hectare per year ($t\ ha^{-a}\ yr^{-y}$), against a European mean average of $2.46\ t\ ha^{-a}\ yr^{-y}$, which indicates soil erosion is moderate on average. These figures are the output of a model run at EU level and should not, therefore, be considered as values measured in situ. The actual soil loss rate can vary widely within the country, depending on local conditions.

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



⁴⁹ Ana Paya Perez, Natalia Rodriguez Eugenio (2018), Status of local soil contamination in Europe: Revision of the indicator "Progress in the management Contaminated Sites in Europe".

⁵⁰ Panagos, P., Borrelli, P., Poesen, J., Ballabio, C., Lugato, E., Meusburger, K., Montanarella, L., Alewell, C., The new assessment of soil loss by water erosion in Europe, (2015) Environmental Science and Policy, 54, pp. 438-447.

Marine protection

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

The Marine Strategy Framework Directive (MSFD)⁵¹ aims to achieve good environmental status of the EU's marine waters by 2020. To that end, Member States must develop a marine strategy for their marine waters, and cooperate with the EU countries that share the same marine (sub)region.

For Portugal, the Convention for the protection of the marine environment of the North-East Atlantic (OSPAR Convention) makes a major contribution towards achieving this goal.

These marine strategies comprise a number of steps to be developed and implemented over six-year cycles. The latest step required Member States to set up a programme of measures and report it to the Commission by 31 March 2016. However, Portugal reported its Monitoring Programmes and Programme of Measures at the same time in 2015. The Commission has assessed whether the measures reported by Portugal are sufficient to attain good environmental status⁵².

Most of Portugal's measures address the relevant pressures in part only. For example, while they address impacts on species of birds, fish and mammals, they fail to cover certain by-catch issues (e.g. those relating to birds). Moreover, Portugal relies on measures to protect marine areas in general, although it is not always clear what pressures are to be addressed in such areas.

The measures reported are often monitoring efforts and research projects mapping human activities. While they are consistent with Portugal's targets, they cannot themselves be classed as measures. It is thus unclear whether and how they will help attain good environmental status. Although most new measures were expected to have been implemented by 2016, the Portuguese authorities do not say whether they expect good environmental status to be achieved for all descriptors, and, if so, when. Overall, Portugal's programme of measures addresses the Marine Strategy Framework Directive's requirements in part only.

⁵¹ European Union, [Marine Strategy Framework Directive 2008/56/EC](#)

⁵² European Commission, [Commission Report assessing Member States' programme of measures under the MSFD – SWD\(2018\) 393 final](#), of 31.07.2018.

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2019 priority actions

- Set timelines for attaining good environmental status if no such timelines have been reported.
- Provide more information about measures, establish more measures with a direct impact on the pressures and quantify by how much the pressure in question is expected to be reduced by these measures.
- Cooperate with other Member States sharing the same marine region or subregion to tackle predominant pressures.

3. Ensuring citizens' health and quality of life

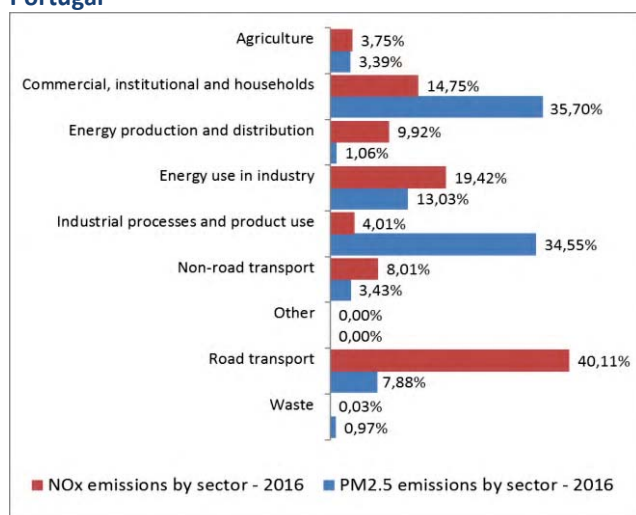
Air quality

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

The EU has developed a comprehensive body of air quality legislation⁵³, which establishes health-based standards and objectives for a number of air pollutants.

The emission of several air pollutants has decreased significantly in Portugal, as mentioned in the previous EIR. Despite the reductions achieved since 1990, additional efforts are needed to meet Portugal's commitments to cut emissions from 2005 levels, laid down in the new National Emissions Ceilings Directive⁵⁴ for 2020-2029 and for any year from 2030.

Figure 13: PM_{2.5} and NO_x emissions by sector in Portugal⁵⁵



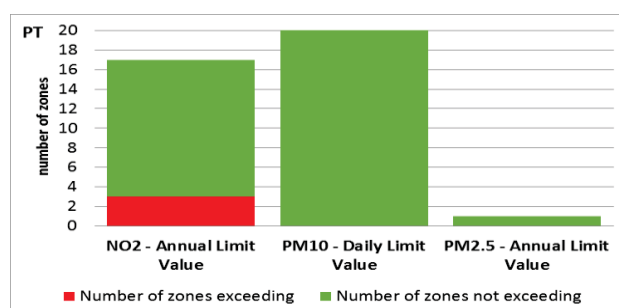
However, air quality in Portugal continues to give cause for concern. The European Environment Agency attributed an estimated 5 170 premature deaths in 2015 to fine particulate matter concentrations⁵⁶, 280 to ozone

concentration and 610 to nitrogen dioxide⁵⁷ concentrations⁵⁸.

Levels of nitrogen dioxide (NO₂) above EU air quality standards were registered in three air quality zones out of 17 (Lisboa, Braga, Porto)⁵⁹ in 2017. Moreover, target values for ozone⁶⁰ concentration are also being exceeded⁶¹.

See also Figure 14 for the number of air quality zones where NO₂, fine particulate matter (PM_{2.5}), and particulate matter (PM₁₀) values were exceeded in 2017.

Figure 14: Air quality zones exceeding EU air quality standards in 2017⁶²



According to a special report by the European Court of Auditors⁶³, EU action to protect human health from air pollution has not had the impact anticipated. There is a risk of air pollution being underestimated in instances where it is not monitored at the right locations. Member States are required to report both real-time and validated air quality data to the Commission⁶⁴.

liquid) covering a wide range of sizes and chemical compositions. PM₁₀ (PM_{2.5}) refers to particles with a diameter of 10 (2.5) micrometres or less. PM is emitted from many human sources, including combustion.

⁵⁷ NO_x is emitted during fuel combustion e.g. from industrial facilities and the road transport sector. NO_x is a group of gases comprising nitrogen monoxide (NO) and nitrogen dioxide (NO₂).

⁵⁸ EEA, [Air Quality in Europe – 2018 Report](#), p.64. Please see details in this report as regards the underpinning methodology.

⁵⁹ EEA, [Central Data Repository](#)

⁶⁰ Low level ozone is produced by photochemical action on pollution.

⁶¹ [EEA, Eionet Air Quality Portal](#) and the related Central Data Repository....

⁶² [EEA, EIONET Central Data Repository](#). Data reflects the reporting situation as of 26 November 2018.

⁶³ European Court of Auditors, Special report no 23/2018, [Air pollution: Our health still insufficiently protected](#), p.41.

⁶⁴ Article 5 of [Commission Implementing Decision 2011/850/EU](#) of 12 December 2011 laying down rules for [Directives 2004/107/EC](#) and [2008/50/EC](#) of the European Parliament and of the Council as regards the reciprocal exchange of information and reporting on ambient air quality (OJ L 335, 17.12.2011) requires Member States to provide Up-To-Date data.

⁵³ European Commission, 2016. [Air Quality Standards](#)

⁵⁴ [Directive 2016/2284/EU](#)

⁵⁵ 2016 NECD data submitted by Member State to the EEA.

⁵⁶ Particulate matter (PM) is a mixture of aerosol particles (solid and

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The European Commission is following up persistent breaches of air quality requirements (for PM₁₀ and NO₂), which have extremely negative effects on health and the environment; it has initiated infringement procedures against all the Member States concerned, including Portugal. The aim is to ensure that appropriate measures are taken to make all areas compliant.

In April 2018, the Portuguese Environment Agency (APA) hosted a TAIEX-EIR-P2P multi-country workshop on monitoring air pollution impacts on ecosystems⁶⁵.

2019 priority actions

- In the context of developing and adequate National Air Pollution Control Programme (NAPCP), take actions towards reducing the main emission sources; and meet all air quality standards.
- Accelerate reductions in nitrogen oxide (NO_x) emissions and nitrogen dioxide (NO₂) concentrations by further reducing transport emissions, in particular in urban areas. It may also require proportionate and targeted restrictions on vehicle access to urban areas and/or fiscal incentives.

Industrial emissions

The main objectives of EU policy on industrial emissions are to:

- (i) protect air, water and soil;
- (ii) prevent and manage waste;
- (iii) improve energy and resource efficiency; and
- (iv) clean up contaminated sites.

To achieve this, the EU takes an integrated approach to the prevention and control of routine and accidental industrial emissions. The cornerstone of the policy is the Industrial Emissions Directive⁶⁶ (IED).

The below overview of industrial activities regulated by the IED is based on the 'industrial emissions policy country profiles' project⁶⁷.

About 625 industrial installations in Portugal are required to have a permit based on the IED.

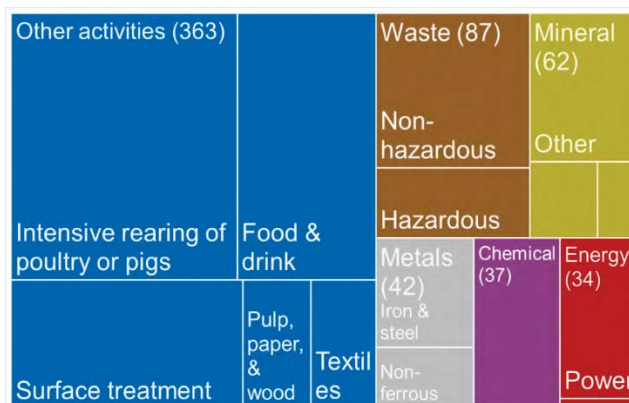
⁶⁵ In Lisbon, on 4-6 April 2018, providing experts from Portugal, Spain, France, Italy, Croatia and the Netherlands with a platform to share experiences of and know-how about the implementation of Article 9 of the new National Emissions Ceiling Directive (NEC), Directive 2016/2284.

⁶⁶ [Directive 2010/75/EU](#) covers industrial activities carried out above certain thresholds. It covers energy industry, metal production, mineral and chemical industry and waste management, as well as a wide range of industrial and agricultural sectors (e.g. intensive rearing of pig and poultry, pulp and paper production, painting and cleaning).

⁶⁷ European Commission, [Industrial emissions policy country profile – Portugal](#).

In 2015, the industrial sectors with most installations covered by the IED were: (i) intensive rearing of poultry and pigs (24%), (ii) slaughterhouses, food and drink and milk (15%), (iii) waste management (14%), (iv) surface treatment (12%,) and (v) mineral production (10%).

Figure 15: Number of IED industrial installations by sector, Portugal (2015)⁶⁸



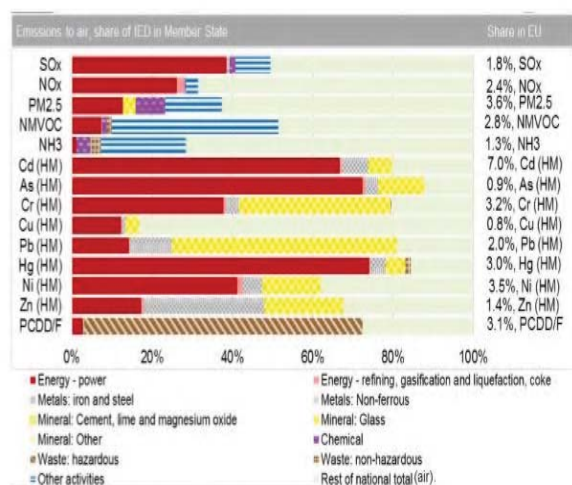
The industrial sectors identified as placing the heaviest burden on the environment in terms of emissions to air were:

- i. the energy–power sector for sulphur oxides (SO_x), nitrogen oxides (NO_x), particulate matter (PM_{2.5}), cadmium (Cd), arsenic (As), chromium (Cr), copper (Cu), lead (Pb), mercury (Hg) nickel (Ni) and zinc (Zn),
- ii. 'other activities' (mostly intensive rearing of poultry or pigs, surface treatment and pulp, paper and wood products) for particulate matter (PM_{2.5}), non methane volatile organic compounds (NMVOCs) and ammonia (NH₃),
- iii. mineral production for chromium (Cr), lead (Pb), nickel (Ni) and zinc (Zn),
- iv. metal production for zinc and
- v. waste management for polychlorinated dibenzodioxins and polychlorinated dibenzofurans (PCDD/F).

The breakdown is shown in Figure 16.

⁶⁸ European Commission, [Industrial emissions policy country profile – Portugal](#).

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



“Other activities” were identified as having environmental burdens for emissions to water. The waste management, chemicals and metal production sectors mainly contribute to hazardous waste generation while waste management and “other activities” sectors mainly contribute to non-hazardous waste generation.

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 granted appropriately and their conditions respected.

Developing Best Available Techniques (BAT) Reference Documents (BREFs) and BAT Conclusions by sharing information involving Member States, industrial associations, NGOs and the Commission ensures good collaboration with stakeholders and improves the way in which the IED is implemented.

The Commission relies on and welcomes the efforts of national competent authorities to implement the legally binding BAT conclusions and associated BAT emissions levels in environmental permits. These efforts cut pollution significantly in the long term.

By way of example, implementing the recently adopted BAT associated emission levels for large combustion plants will - on average and depending on the situation of individual plants - cut emissions of sulphur dioxide by 25%-81%, nitrogen oxide by 8%-56%, dust by 31%-78% and mercury by 19%-71%.

The challenges identified related to air pollution from power plants.

2019 priority actions

- Review permits and strengthen control and enforcement to comply with newly adopted BAT conclusions
- Tackle air pollution from the power sector.

Noise

The Environmental Noise Directive⁶⁹ provides for a common approach to avoiding, preventing and reducing the harmful effects of exposure to environmental noise.

Excessive noise from aircraft, railways and roads is one of the main causes of environmental health-related issues in the EU⁷⁰.

In Portugal, based on a limited set of data⁷¹, environmental noise is estimated to cause at least around 100 premature deaths and 300 hospital admissions annually. Moreover, some 120 000 people suffer from disturbed sleep.

In Portugal, the implementation of the Environmental Noise Directive is ongoing although significantly delayed. On the basis of the latest full set of information that has been analysed (2012 for noise maps and 2013 for action plans), noise mapping of agglomerations, roads and railways remains incomplete. Moreover, Portugal still lacks action plans for three agglomerations and most roads and railways. These instruments, adopted after a public consultation had been carried out, should include the measures to keep noise low or reduce it.

Aware of the need to improve the existing approach and to achieve the objectives required at national and EU level, Portugal is starting in 2018 the elaboration of the first National Environmental Noise Strategy 2030. This Strategy will focus on the improvement, the harmonization and availability of quality information to the public and the creation of a holistic approach to noise prevention and reduction.

2019 priority actions

- Complete noise mapping
- Complete action plans for noise management in urban areas.

⁶⁹ Directive 2002/49/EC.

⁷⁰ WHO/JRC, 2011, Burden of disease from environmental noise, Fritsch, L., Brown, A.L., Kim, R., Schwela, D., Kephelopoulou, S. (eds), World Health Organisation, Regional Office for Europe, Copenhagen, Denmark.

⁷¹ European Environment Agency, Noise Fact Sheets 2017.

Water quality and management

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

The existing EU water legislation⁷² puts in place a protective framework to ensure high standards for all water bodies in the EU and addresses specific pollution sources (for example, from agriculture, urban areas and industrial activities). It also requires that the projected impacts of climate change are integrated into the corresponding planning instruments, e.g. flood risk management plans and river basin management plans, including programme of measures which include the actions that Member States plan to take in order to achieve the environmental objectives.

Water Framework Directive

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

The most significant pressures on surface waters are diffuse pollution from agriculture (39% of water bodies) followed by other diffuse pollution (30%). For groundwater bodies the most significant pressure is also diffuse pollution from agriculture (13% of groundwater bodies), followed by alteration of water level or volume (2.6%) and other point source (1.3%).

Organic pollution was the most significant impact on surface water (41% of surface water bodies) and groundwater (13%). Nutrients is also a significant impact in surface water.

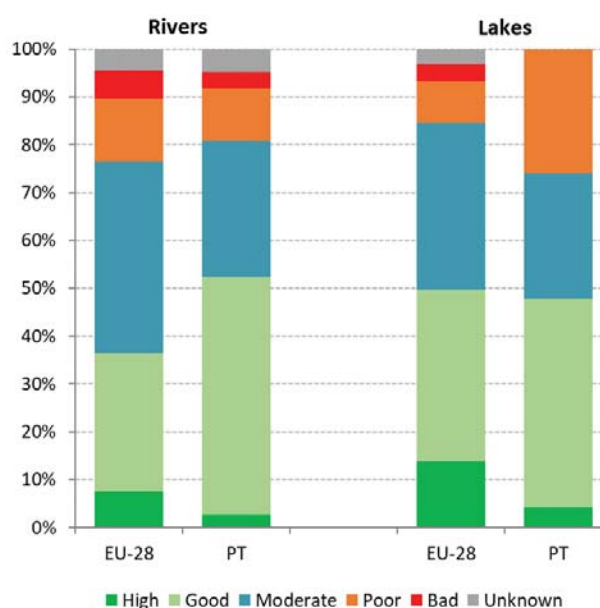
The classification of ecological status/potential is now based on more comprehensive classification methods that consider more of the relevant biological quality elements and some hydromorphological and

⁷² This includes the [Bathing Waters Directive \(2006/7/EC\)](#), the [Urban Waste Water Treatment Directive \(91/271/EEC\)](#) (on discharges of municipal and some industrial wastewaters), the [Drinking Water Directive \(98/83/EC\)](#) (on potable water quality), the [Water Framework Directive \(2000/60/EC\)](#) (on water resources management), the [Nitrates Directive \(91/676/EEC\)](#) and the [Floods Directive \(2007/60/EC\)](#).

physicochemical quality elements. Overall ecological status has been reported for almost all delineated water bodies, except artificial rivers and 33% of coastal and transitional water bodies. The ecological status/potential is illustrated in figure 17.

The total number of monitoring sites has increased by 36% in Portugal. There has been a significant increase in numbers of surveillance sites and decrease in operational monitoring (except for rivers).

Figure 17: Ecological status or potential of surface water bodies in Portugal⁷³



The proportion of surface water bodies at good chemical status decreased from around 40% to 25% between the first and second River Basin Management Plans. The proportion of surface water bodies failing to achieve good status has remained very similar and unknown status has increased from around 58% to 74% (surface water bodies in Portugal not monitored for chemical status are generally reported as unknown status, although expert judgment is used in some cases). Groundwater bodies failing good chemical status have decreased from 4.9% to 2.7% of the total groundwater body area.

Groundwater bodies failing good quantitative status increased between the first and second River Basin Management Plans (from 1% to 1.5% in terms of area). 97% of groundwater bodies are in good quantitative status and 3% are failing good status.

⁷³ EEA, [WISE dashboard](#).

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The amount and quality of information has in general improved considerably between the first and second River Basin Management Plans.

Significant pressures are identified in the second RBMPs and addressed by measures (Key type of measures). Some measures are completed since the first Programme of Measures but obstacles such lack of finance, delays and extreme events have occurred in relation to the implementation of the first Programme of Measures.

Gap analyses have been provided in order to achieve the environmental objectives in the Water Framework Directive regarding most significant pressures and the gaps are expected to be closed by 2027 (some by 2021).

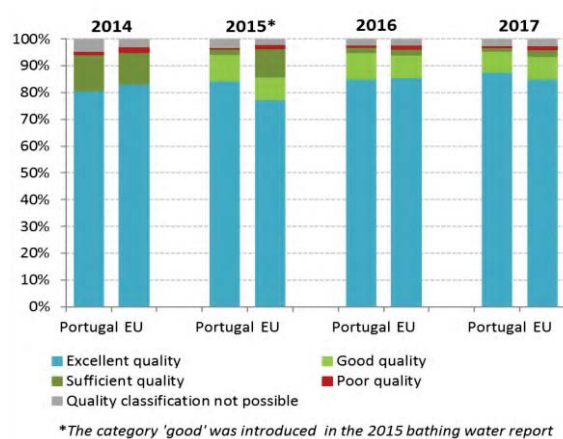
Drinking Water Directive

As regards the Drinking Water Directive, no new data have been made available since the last Environmental Implementation Review report⁷⁴.

Bathing Water Directive

As regards the Bathing Water Directive, Figure 18 shows that, in 2017: (i) 87.7 % of the 603 bodies of bathing water in Portugal were of excellent quality, (ii) 7.6 % were of good quality, and (iii) 1.3 % were of sufficient quality (85.1 %, 9.7 % and 2.2 % respectively in 2016). In 2017, five bodies of bathing water in Portugal were of poor quality⁷⁵. Detailed information on Portuguese bathing waters is available from a national portal⁷⁶ and via an interactive map viewer produced by the European Environment Agency⁷⁷.

Figure 18: Bathing water quality 2014 – 2017



⁷⁴ Compliance with the Drinking Water Directive microbiological and chemical parameters as last reported was very high.

⁷⁵ European Environment Agency, 2018. [European bathing water quality in 2017](#).

⁷⁶The Portuguese Environment Agency, [bathing waters national portal](#) and [interactive map viewer](#)

⁷⁷ EEA, [State of bathing waters](#).

Nitrates Directive

According to the last report on the implementation of the Nitrates Directive, covering 2012-2015, groundwater quality had improved slightly since the previous reporting period; the percentage of stations reaching or exceeding 40 or 50 mgs of nitrate per litre had fallen from 23.9.1% to 21.4%, and from 20.4% to 17.9% respectively. The situation as regards concentrations of nitrates in surface water was fairly positive and stable, and some improvements had been made in reducing the eutrophication of surface water.

Urban Waste Water Treatment Directive

Over the years, Portugal has had difficulty in meeting its obligations under the Urban Waste Water Treatment Directive (UWWTD). According to the last available data, 99.8 % of Portugal's waste water is collected, while 76.9 % of the load collected is subjected to secondary treatment. Finally, 66 % of the waste water load collected undergoes more stringent treatment.

Portugal is the only EU Member State to have identified 'less sensitive' areas⁷⁸, that is, areas whose intrinsic features mean that they are, in principle, not adversely affected by wastewater discharges⁷⁹.

Current investment in collecting systems and treatment plants to ensure compliance is estimated at an average EUR 49.5 million annually (EUR 5 per inhabitant.) Such investment takes no account of the funds needed to renew and extend existing infrastructure, specifically the collecting systems⁸⁰. According to this latest report, the final projects are expected to be completed by 2018-2019, a long time after the final 2005 deadline which the Directive set for Portugal.

The Commission is engaged in follow-up with agglomerations that have failed to meet their obligations under the UWWTD, launching infringement proceedings where necessary. Despite improvements in compliance over the years, in which EU funding has played an essential role, the Court of Justice of the European Union has ruled against Portugal on several occasions for incomplete implementation of the UWWTD. One such case, resulting in a fine for Portugal, was resolved in 2018. However, further efforts are needed to address the remaining gaps, such as those in the Madeira region.

⁷⁸ Such as open bays, estuaries and other coastal waters with a good water exchange.

⁷⁹ Portugal reports regularly to the Commission on its areas identified as 'less sensitive areas': 'Cabo da Roca/Estoril' and 'Madeira (vertentesul)'.
⁸⁰ European Commission, Ninth Report on the Implementation Status and the Programmes for Implementation of the Urban Waste Water Treatment Directive [COM(2017)749] and Commission Staff Working Document accompanying the report (SWD(2017)445).

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Floods Directive

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

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

The Commission's assessment found that good efforts were made with positive results in setting objectives and devising measures focusing on prevention, protection and preparedness. The assessment showed that, as for other countries, Portugal's Flood Risk Management Plans do not yet include a strong link between the objectives and the measures and identification of specific sources of funding. In addition, there is scope for improving the integration of the flood risk management cycle's successive steps into the Flood Risk Management Plan.

In Portugal, agriculture account for about 80% of total water consumption. Although the amount of water used in farming has fallen in recent years, significant scope remains for saving water. While much depends on improving water pricing policy, there is also significant potential for water savings through innovation.

Despite the progress achieved in recent years in water management, challenges remain, for instance with water governance and the need to close gaps in water investments, especially for wastewater. At the municipal level, the sector remains highly fragmented and the reorganisation of the water and wastewater services has not yet shown its full potential.

Finally, natural water retention measures for flood prevention are often disregarded, despite being sometimes more cost-effective than hard infrastructure for flood prevention, as well as being cheaper than the costs of flood recovery⁸¹.

2019 priority actions

- Improve monitoring of surface water by covering all relevant quality elements in all water categories. Include in operational monitoring all water bodies which are subject to significant pressures, including in coastal waters.
- Ensure that projects, which potentially can affect the status of water bodies, are thoroughly assessed and justified in line with the requirements in the Water Framework Directive (Article 4(7)).

⁸¹ RPA, 2014. Study on Economic and Social Benefits of Environmental Protection and Resource Efficiency Related to the European Semester. Study for the European Commission, [Annex 1: Country fiches](#).

- Continue updating licenses and permits for all abstractions and flow regulations.
- Continue current efforts to further reduce nitrates pollution from agriculture in groundwater.
- Complete implementation of the Urban Waste Water Treatment Directive for all agglomerations, by building up the necessary infrastructure.
- Take steps to improve the integration of the flood risk management cycle's successive steps into the Flood Risk Management Plan.

Chemicals

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

The EU's chemicals legislation⁸² provides baseline protection for human health and the environment. It also ensures stability and predictability for businesses operating within the internal market.

The 2016 European Chemicals Agency (ECHA) report on the operation of the Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and the Classification, Labelling and Packaging Regulation (CLP)⁸³ showed that enforcement activities are still evolving. In the Forum for Exchange of Information on Enforcement, coordinated enforcement projects⁸⁴ have shown that more could be done to make enforcement more effective, especially as regards registration obligations and safety data sheets, which reveal quite a high level of non-compliance.

Although there have been improvements in national enforcement activities, there is scope for further improving such activities as regards EU-wide harmonisation, including checks on imported goods. It is also clear that enforcement remains weak in some Member States, especially as regards checks on imports and supply chain obligations. The architecture of enforcement capabilities remains complex in most EU countries. Enforcement projects also reveal some differences among Member States some systematically

⁸² Principally for chemicals: REACH (OJ L 396, 30.12.2006, p.1.); for Classification, Labelling and Packaging, the CLP Regulation (: OJ L 252, 31.12.2006, p.1.), together with legislation on biocidal products and plant protection products.

⁸³ European Chemicals Agency, [Report on the Operation of REACH and CLP 2016](#).

⁸⁴ ECHA, on the basis of the projects [REF-1](#), [REF-2](#) and [REF-3](#).

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reporting higher compliance than the EU average, others lower.

A 2015 Commission study highlighted already the importance of harmonisation in the implementation of REACH at Member State level, in terms of market surveillance and enforcement, as a critical success factor in the operation of a harmonised single market⁸⁵.

In March 2018, the Commission published an evaluation of REACH⁸⁶. The evaluation concludes that REACH delivers on its objectives, but that progress made is slower than anticipated. In addition, the registration dossiers often are incomplete. The evaluation underlines the need to enhance enforcement by all actors, including registrants, downstream users and in particular for importers, to ensure a level playing field, meet the objectives of REACH and ensure consistency with the actions envisaged to improve environmental compliance and governance. Consistent reporting of Member State enforcement activities was considered important in that respect.

Responsibility for checking compliance with REACH in Portugal rests with the following authorities⁸⁷:

- the General Inspectorate for Agriculture, the Sea, the Environment and Spatial Planning (IGAMAOT), which focuses on producers and formulators,
- the Authority for the Economy and Food Safety (ASAE), which focuses on distributors, wholesalers and retailers, and
- the Tax and Customs Authority (AT), which focuses on importers.

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.

Making cities more sustainable

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

⁸⁵ European Commission. (2015). Monitoring the Impacts of REACH on Innovation, Competitiveness and SMEs. Brussels: European Commission

⁸⁶ COM(2018) 116.

⁸⁷ ECHA, [National Inspectorates - Portugal](#)

Europe can be seen as a union of cities and towns. Around 75 % of the EU population live in urban areas⁸⁸ and that figure is projected to rise to just over 80% by 2050⁸⁹. Urban areas pose particular challenges for the environment and human health, but they also provide opportunities for using resources more efficiently. The EU encourages municipalities to become greener through initiatives such as the Green Capital Award⁹⁰, the Green Leaf Award⁹¹ and the Green City Tool⁹².

Financing greener cities

Portugal has assigned significant resources from the 2014-2020 ERDF (more than the mandatory 5% of allocations under the ERDF and the ESF) to sustainable urban development.

Participation in EU urban initiatives and networks

The EU stimulates green cities through awards and funding, such as the EU Green Capital Award, which targets cities with over 100 000 inhabitants, and the EU Green Leaf initiative, targeting cities and towns with between 20 000 and 100 000 inhabitants.

The Portuguese city of Torres Vedras was one of the two winners of the inaugural EU Green Leaf award in 2015⁹³. Torres Vedras took part with other Green Leaf cities in a TAIEX-EIR P2P workshop on waste management and the green economy in urban areas, held in Galway (Ireland) in February 2018⁹⁴.

Moreover, it has to be highlighted that Lisbon has been selected as European Green Capital for 2020⁹⁵.

Portuguese cities are also actively involved in initiatives such as Eurocities and the EU Covenant of Mayors. By June 2018, 140 cities and towns were signed up to the Covenant.

These urban initiatives and networks should be welcomed and encouraged, as they contribute to a better urban environment. In 2017, 15.4 % of city residents considered their residential area to be affected by pollution or other environmental problems, down from 15.1 % in 2016. These figures are lower than the EU 28

⁸⁸ European Commission, [Urban Europe, 2016](#).

⁸⁹ European Commission, Eurostat, [Urban Europe](#), 2016, p.9.

⁹⁰ European Commission, [European Green Capital](#).

⁹¹ European Commission, [European Green Leaf Award](#).

⁹² European Commission, [Green City Tool](#).

⁹³ European Commission Press Release, 18th June 2015, [Torres Vedras wins inaugural European Green Leaf 2015](#)

⁹⁴ Where the cities from the Green Leaf network from Spain, Ireland, Belgium, Portugal and Sweden collaborated and share best practice on the Waste Management and the Green Economy in urban areas.

⁹⁵ European Commission, [Winners of the 2020 European Green Capital and 2019 European Green Leaf Award](#)

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levels (20 % in 2017, 18.9 % in 2016 and 19.2 % in 2015)⁹⁶.

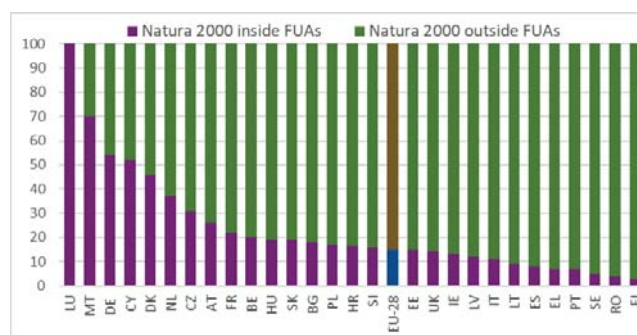
Nature and cities

In the interests of promoting sustainable urban development and in line with mainstream European strategies and programmes, Portugal approved the Sustainable Cities 2020 Strategy in 2015. This guiding document provides municipalities, inter-municipal bodies and other urban stakeholders with a roadmap on urban sustainability for the next EU funding cycle, which runs up to 2020. The document outlines a set of non-binding strategic guidelines to be adopted by Portuguese cities and towns. These lay the foundations on which Sustainable Cities 2020 can be put into practice, through the launch of a range of tools promoting its implementation⁹⁷.



This strategy is designed to reinforce the strategic dimension of the role of cities in various areas, namely: urban regeneration and restoration, the urban environment, low carbon, climate change, and risks. It is based on the paradigm of sustainable urban development. This requires the involvement and commitment of various players, so that the focus of interventions is not limited to the physical dimension of the urban area, but rather, seeks to achieve aims such as economic development, social inclusion, education, participation and environmental protection.

Figure 19: Proportion of the Natura 2000 network intersecting with functional urban areas⁹⁸⁹⁹



Urban sprawl

Portugal has a relatively high weighted urban proliferation (WUP), with 2.33 urban permeation units (UPU)¹⁰⁰ per square metre in 2009, against a European average (EU-28+4) of 1.64 UPU/m². There was a 6% increase between 2006 and 2009¹⁰¹.

Traffic congestion and urban mobility

Personal transport exacerbates seasonal problems with air quality and traffic congestion¹⁰² in the major metropolitan areas in Portugal, namely Lisbon and Porto, leading to health and economic costs. A comprehensive approach is needed to tackle the issue, bringing environmental as well as economic and social benefits.

The Green Growth Commitment sets a target for increasing use of public transport. It identifies several ways to meet the target, including: (i) modernising public transport, including rail transport; (ii) developing mobility plans for major public and private employers; (iii) promoting less polluting vehicles (including electric vehicles and those running on biofuels); and (iv) promoting environmentally friendly modes of transport.

The number of electric charging points in Portugal increased steadily between 2013 and 2016, reaching 1 250 in the latter year¹⁰³.

It is also important to consider developing new approaches to urban logistics with the potential to reduce the number of lorries in urban areas. The Lisbon-Tagus Valley region, for instance, is taking part in the

⁹⁸ European Commission, [The 7th Report on Economic, Social and Territorial Cohesion](#), 2017, p. 121.

⁹⁹ European Commission, [Definition of Functional Urban Areas](#).

¹⁰⁰ Urban Permeation Units measure the size of the built-up area as well as its degree of dispersion throughout the region.

¹⁰¹ EEA, [Urban Sprawl in Europe, Annex I](#), 2014, pp.4-5.

¹⁰² INRIX, 2015. [Key Findings: INRIX 2015 Traffic Scoreboard](#)

¹⁰³ European Commission, [Transport in the European Union Current Trends and Issues](#), 2018, p. 110-111.

⁹⁶ Eurostat, [Pollution by degree of urbanisation](#).

⁹⁷ The Portuguese Government, [Council of Ministers Resolution No. 61/2015, August 11](#)

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'Dorothy' project¹⁰⁴, designed to improve the distribution of urban goods by cutting vehicle numbers and upgrading environmental standards.

Another relevant issue is decentralisation under the new legal framework for public transport services. This has the potential to improve the planning and management of public transport at both local and regional level. It allows for higher levels of efficiency, which should reduce the environmental impact of public transport.

In this context, the 'Lisbon green corridor' initiative deserves commending as an example of green infrastructure benefiting a metropolitan area. The Lisbon Strategy for 2010-2024 identified three main objectives for the city: (i) city regeneration: rehabilitation of vacant buildings and degraded city districts and green areas, to reverse depopulation; (ii) adaptation to climate change: focusing on the challenges posed by climate change and the consequent natural vulnerabilities (such as flooding), as well as on energy efficiency, reducing the number of vehicles in circulation and increasing the amount of land given over to green areas; and (iii) green connectivity: creating a network of green areas and green corridors for recreational activities and the protection, appreciation and promotion of biodiversity and of natural and cultural landscapes. This strategy has increased the size and improved the quality and connectivity of green areas in Lisbon, thanks to cycle lanes, bicycle-friendly streets, ecological corridors and allotments. The green corridor networks and informal open areas such as allotments are accessible to urban residents, workers and tourists. Other benefits are: (i) the positive impact on health of promoting active transport (walking/cycling), (ii) environmental impact gains, and (iii) additional income (and jobs) from an increased number of visitors. There is still room for improvement in implementing these measures.

The good practices that make for sustainable urban development could be extended across the country as a whole.

¹⁰⁴ Information about the [Dorothy project](#), co-funded by the EU.

Part II: Enabling framework: implementation tools

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

Green taxation and environmentally harmful subsidies

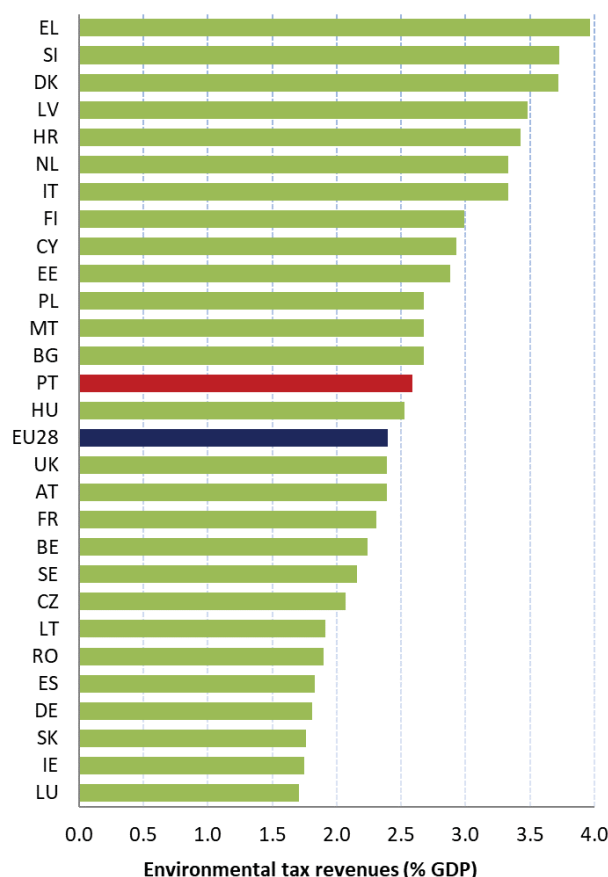
Financial incentives, taxation and other economic instruments are effective and efficient ways to meet environmental policy objectives. The circular economy action plan encourages their use. Environmentally harmful subsidies are monitored in the context of the European Semester and the energy union governance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

Portugal's revenue from environmentally relevant taxes remains in line with the EU average. Environmental taxes accounted for 2.59 % of GDP in 2017 (EU-28 average: 2.40 %), as shown in Figure 20; and energy taxes for 2.33 % of GDP, against an EU average of 1.84 %¹⁰⁵. In the same year, environmental tax revenues were 7.02 % of total revenues from taxes and social security contributions (above the EU-28 average of 5.97 %).

The structure of taxation shows a share of revenues from labour tax in total tax revenues lower than the EU average in 2016, at 42.2 %, while the implicit tax burden on labour was 29 %¹⁰⁶. Consumption taxes remained relatively high (36.5 %, 12th in the EU-28), indicating that there is some potential for shifting taxes from labour to consumption, especially to environmental taxes.

There are some instances of sound fiscal measures that benefit the environment. A good example is the water resources fee, to 'offset the benefits accruing from the private use of public water resources, the environmental costs associated with activities that may have a significant impact in water resources, and the administrative costs of planning, managing, control, and the guarantee of the quantity and quality of water resources'¹⁰⁷. The Ecological Fiscal Transfer provides compensation to municipalities which, owing to the designation of Natura 2000 and other protected areas, may have land-use constraints with potential opportunity costs in terms of economic development¹⁰⁸.

Figure 20: Environmental tax revenues as % of GDP (2017)¹⁰⁹



Meanwhile, fossil fuel subsidies and exemptions have increased slightly over the past decade. In 2016, Portugal still had tax exemptions for fossil fuels used in navigation, railway vehicles, farm machinery, fixed engines, heating, and autonomous refrigerators. These exceptions added up to EUR 270 million¹¹⁰. Since 2018, the Government began a phase out of excise duty and carbon tax exemptions on coal for electricity generation. A working group to study energy tax exemptions was created in 2018.

Some progress has been made on reducing the 'diesel differential' (the difference between the price of diesel and that of petrol) since 2005. The gap between petrol and diesel tax rates stood at 53 % in 2016, against 70 % in

¹⁰⁵ Eurostat, [Environmental tax revenues, 2019](#).

¹⁰⁶ European Commission, [Taxation Trends Report](#), 2018.

¹⁰⁷ Institute for European Environmental Policy, Case Studies on Environmental Fiscal Reform, [Water resource fee in Portugal](#).

¹⁰⁸ Institute for European Environmental Policy, Case Studies on Environmental Fiscal Reform, [Ecological Fiscal Transfer in Portugal](#).

¹⁰⁹ Eurostat, [Environmental tax revenues, 2019](#).

¹¹⁰ OECD, [Inventory of Support Measures for Fossil Fuels](#), 2018.

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2005¹¹¹. Rates of excise on petrol and diesel in 2016 remained the same as in 2015 (EUR 0.62 per litre for petrol, EUR 0.40 for diesel)¹¹².

Tax breaks for company cars in Portugal are a cause for concern¹¹³. No relevant tax measures relating to company cars were introduced in 2018¹¹⁴, although there is a limit to fiscal benefits regarding vehicles under corporate income tax.

Portugal has CO₂-based motor vehicle taxes¹¹⁵. Vehicle taxation is based on engine capacity and emissions, as well as on the annual road tax for cars registered after 1 July 2007¹¹⁶. There were incentives to buy cars with lower CO₂ emissions in 2016, linked to annual road taxes and subsidies, road tolls, congestion or low emission zone charges. However, there are no incentives to use public infrastructure in preference to private transport¹¹⁷. New vehicles purchased in Portugal are among the most environmentally friendly in the EU, with average CO₂ emissions of 104.7 grams per kilometre, below the EU average of 118 grams in 2016¹¹⁸.

The number of cars running on alternative types of fuel is increasing; the number of new passenger cars using such fuels rose more than ninefold between 2011 and 2015. However, such cars still account for less than 1 % of the overall fleet. The share of renewable energy in transport has been growing quite fast, outstripping the EU average in 2015. Portugal has two schemes to support the use of renewable energy sources in transport: a tax exemption for small producers of biofuels (PPDs) and a biofuel quota for companies supplying fuels for consumption in the market¹¹⁹.

Green Public Procurement

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

¹¹¹ European Environment Agency 2017, [Environmental taxation and EU environmental policies](#), p.27.

¹¹² European Commission, [Taxes in Europe Database](#), 2018.

¹¹³ European Commission, [Taxation of commercial cars in Belgium](#) 2017.

¹¹⁴ FleetEurope, [Major changes to company car taxation in Europe](#).

¹¹⁵ ACEA, [CO₂ based motor vehicle taxes in Europe](#).

¹¹⁶ European Commission, [European Semester 2018, Country Report for Portugal](#), p. 17.

¹¹⁷ European Environmental Agency, [Appropriate taxes and incentives do affect purchases of new cars](#), 18 May 2018.

¹¹⁸ European Environment Agency, [Average CO₂ emissions from new passenger cars sold in EU-28 Member States plus Norway, Iceland and Switzerland in 2016](#).

¹¹⁹ European Commission, [Transport in the European Union Current Trends and Issues](#), 2018, p. 110-111.

The purchasing power of public procurement amounts to around EUR 1.8 trillion in the EU (approximately 14% of GDP). A substantial proportion of this money goes to sectors with a high environmental impact such as construction or transport. Therefore, green public procurement (GPP) can help to significantly lower the negative impact of public spending on the environment and can help support sustainable innovative businesses. The Commission has proposed EU GPP criteria¹²⁰.

In Portugal GPP policy has been institutionalised since the introduction of the National Strategy for Green Public Procurement 2008-2010, which was adopted by the Council of Ministers in 2007.

In July 2016 the Portuguese Government approved a new national GPP strategy (ENCPE 2020), which defines the scope of the concept more precisely. This strategy, which covers more purchasing procedures, is designed to have a wider-ranging and more effective impact than the previous one.

GPP criteria will be developed little by little at national level. They will be based on national and European studies on GPP criteria and products and will take account of Portugal's environmental objectives, such as reducing greenhouse emissions.

The environmental criteria for 21 priority product groups are the main tools for meeting the strategy's objectives, they are: office buildings, electricity, imaging equipment, electrical and electronic equipment used in the health care sector, office IT equipment, indoor lighting, street lighting and traffic signals, waste water infrastructure, road design, construction and maintenance, furniture, wall panels, copying and graphic paper, combined heat and power (CHP), food and catering services, gardening products and services, cleaning products and services, water-based heaters, toilets and urinals, textiles, sanitary tapware and transport.

The 2020 National Strategy sets targets for the National System for Public Procurement, which involves most public bodies. The target set was to integrate environmental criteria in 60 % of contracts and 60 % of procurement value by 2020. In addition, similar targets were set for state-owned companies, at 40 %.

The Portuguese Government has also recently adopted additional measures to promote a more sustainable use of resources in Public Administration¹²¹.

¹²⁰ In the Communication 'Public procurement for a better environment' ([COM \(2008\) 400](#)) the Commission recommended the creation of a process for setting common GPP criteria. The basic concept of GPP relies on having clear, verifiable, justifiable and ambitious environmental criteria for products and services, based on a life-cycle approach and scientific evidence base.

¹²¹ The Council of Ministers Resolution n.º 141/2018.

Environmental funding and investments

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

To achieve sustainability, both public and private sources of funding need to be mobilised¹²². The EU has a major role to play here¹²³. Deployment of European Structural and Investment Funds (ESIF)¹²⁴ is essential to meet environmental goals and integrate them into other policy areas. Other instruments, such as Horizon 2020, the LIFE programme, and the European Fund for Strategic Investments (EFSI), may also support implementation and help spread best practice.

According to the 2017 Special Eurobarometer 468 on attitudes of EU citizens towards the Environment, 92% of Portuguese people support more EU investment in environmental protection (the EU-28 average being 85 %).

European Structural and Investment Funds 2014-2020

During the last decades, the support of the EU funding has significantly contributed to improve the implementation of the EU environmental law and policy and Portugal.

Portugal's allocation from the five ESI funds for the 2014-2020 programming period is up to EUR 25.8 billion (see Figure 21, current prices):

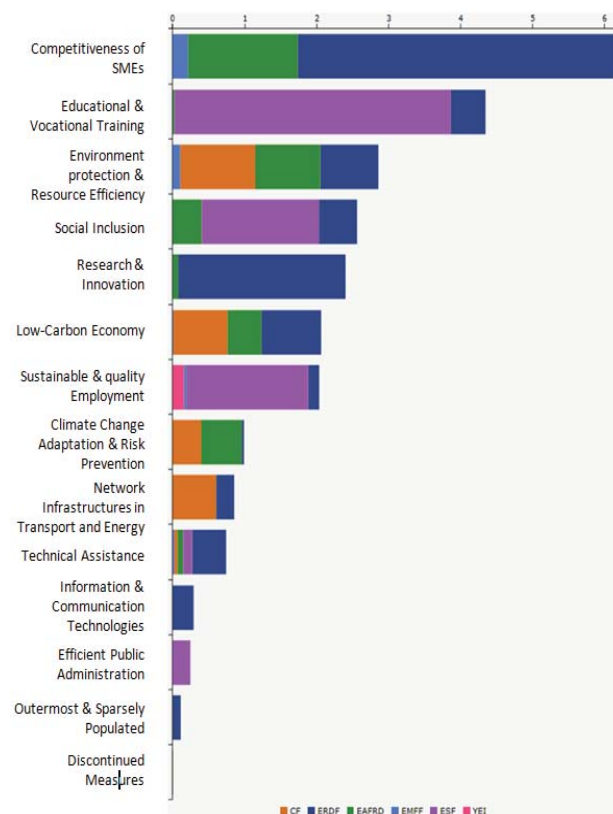
- From the ERDF: EUR 10 737 million.
- From the Cohesion Fund: EUR 2 862 million.
- From the ESF: EUR 7 760 million.
- From the EAFRD: EUR 4 058 million.
- From the EMFF: EUR 392 million.

¹²² European Commission, [Commission action plan on financing sustainable growth](#)

¹²³ European Union, [investEU](#)

¹²⁴ ESIF comprises five funds – the European Regional Development Fund (ERDF), the Cohesion Fund (CF), the European Social Fund (ESF), the European Agricultural Fund for Rural Development (EAFRD), and the European Maritime and Fisheries Fund (EMFF). The ERDF, the CF and the ESF together form the EU Cohesion Policy funds.

Figure 21: ESIF 2014-2020 – EU allocations by theme, Portugal (EUR billion)¹²⁵



The 2007-2013 operational programmes were well implemented in general. There were no major problems with closure. The funds made available were used in full.

It is too early to draw conclusions about the use and results of ESIF for 2014-2020, as the programmes are still under implementation. Portugal currently has a higher implementation rate for 2014-2020 than the EU average.

Cohesion Policy

Portugal has traditionally been a major beneficiary of the EU Cohesion Policy.

Regarding the “status” of the Portuguese regions over the period 2014-2020 is as follows: (i) Lisbon and Madeira are 'more developed regions'; (ii) Algarve is a 'transition region'; and (iii) the Azores, Norte, Centro and Alentejo are 'less developed regions'.

Environmental investment during the current programming period has a similar weight within EU Cohesion Policy as in the previous programming period.

¹²⁵ European Commission, [European Structural and Investment Funds Data By Country](#)

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There is a national Operational Programme dedicated to the environment: the OP 'Sustainability and Efficiency in the Use of Resources' (POSEUR). It has a budget of EUR 2.6 billion¹²⁶ and channels investment in the environment through the Cohesion Fund in Portugal. This programme is designed to anticipate and adapt to global changes in the field of energy, climate change and more efficient resource use. It takes a dynamic approach that links competitiveness and sustainability, in line with the Europe 2020 strategy.

There are also two other national OPs: Competitiveness and Internationalisation, and Technical Assistance. In addition, there are seven regional OPs, which in this period are multi-funding, covering both ERDF and ESF, where environmental measures are also included.

In addition, there are various ERDF OPs involving Portugal in transnational and cross-border cooperation (known as 'territorial cooperation') in which investment in the environment plays a major role.

As regards environmental sectors, Portugal's main ERDF priorities over 2014-2020 are: water (EUR 626 million), adaptation to climate change (EUR 473 million), waste (EUR 310 million), cycle tracks and footpaths (EUR 291 million) and rehabilitation of industrial sites and contaminated land (EUR 164 million).

The environmental integration has been ensured in the Partnership Agreement 2014-2020 and the different Operational Programmes for the five ESIF through the application of the Strategic Environmental Assessment (SEA) Directive and by other means.

Portugal has also created an "Environmental Network" (*Rede Ambiental*) to promote environmental integration into the EU Cohesion Policy¹²⁷. This can be considered as a good practice. It has been done by some other Member States and also exists at EU level (ENEA-MA Network).

The general environmental ex ante conditionality (EAC) on EIA/SEA (looking into the legal framework and the effective arrangements to comply with the environmental impact assessment rules) was considered as fulfilled by Portugal.

The two thematic EACs on Water and Waste were only partially fulfilled by Portugal at the moment of adoption of the Partnership Agreement 2014-2020 and therefore action plans were agreed with the Portuguese authorities in order to comply with all the criteria by end-2016. All the pending issues were ultimately resolved.

¹²⁶ Including the national co-financing part.

¹²⁷ The inaugural meeting took place in Lisbon in January 2018. The Secretariat of the Network is linked to the managing authority of the POSEUR 2014-2020. A second meeting was held in Lisbon in November 2018.

Rural development

In the Rural Development Programme (RDP) of Portugal-Mainland, the funds earmarked for environmental priorities have increased, now accounting for nearly 40% of the total. However, support for the Natura 2000 network under the rural development programme remains insufficient. On a positive note, the rural development programme is helping to restore woodland after the mega forest fires of 2017. The emphasis is on restoring forests by replanting with native species. This should help make forests more resistant to fires.

This RDP also supports the shift towards organic farming, a positive trend on the way to a more sustainable model of farming. However, areas under mono-cropping (maize and tomatoes) persist, placing considerable pressures on the environment (biodiversity loss, soil and water resources). The authorities have set up a scheme that offers an alternative to mandatory crop diversification, which yields low environmental benefits. However, alternatives to mono-cropping have yet to be established.

The funds earmarked for environmental priorities under Madeira's Rural Development Programme represent half (about EUR 195 million) of the total allocation. The programme's measures related to biodiversity and to Natura 2000 are inadequate, only partially covering the needs set out in the Prioritised Action Framework. The RDP is expected to support the measures identified in the 2016-2021 RBMP in the field of water supply and irrigation.

In the Azores' Rural Development Programme, the funds earmarked for environmental priorities represent 45 % (about EUR 290 million) of the total allocation. The programme's support for biodiversity and Natura 2000 remains insufficient to meet existing needs. In particular, the problems of invasive species are still of concern, with the prevalence of large areas of invasive flora in Natura 2000 areas putting pressure on their conservation objectives to achieve good conservation status for protected species and habitats. The contribution of this RDP to environmental objectives is non-targeted, unambitious, and very limited, and does not follow a logic of intervention based on threats and weaknesses in the environmental sphere.

European Maritime and Fisheries Fund

Portugal is a major beneficiary of the European Maritime and Fisheries Fund (EMFF), with EUR 392 million over 2014-2020. The national EMFF operational programme is a key investment package for the Portuguese maritime, fisheries and aquaculture sectors. EU funding is used to promote the Blue Economy, including sustainability aspects.

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The Connecting Europe Facility (CEF)

The CEF is a key EU funding instrument developed specifically to direct investment towards European transport, energy and digital infrastructure to address identified missing links and bottlenecks and promote sustainability. By the end of 2017, Portugal had signed agreements for EUR 678 million for projects under the Connecting Europe Facility¹²⁸.

Among the projects, environmental studies for the development of energy connections and for the improvement of railway connections can be mentioned.

Horizon 2020

Portugal has benefited from Horizon 2020 funding since the programme started in 2014. As of January 2019, 693 participants have been granted a maximum amount of EUR 168.1 million for projects from the Societal Challenges work programmes dealing with environmental issues^{129 130}.

In addition to the abovementioned work programmes, climate and biodiversity expenditure is present across the entire Horizon 2020. In Portugal, projects accepted for funding in all Horizon 2020 working programmes until December 2018 included EUR 166 million destined to climate action (27.1 % of the total Horizon 2020 contribution to the country) and EUR 34 million for biodiversity-related actions (5.6 % of the Horizon 2020 contribution to the country)¹³¹.

The aim of the EU-funded SEEDS project¹³² is to understand how changes in fauna are affecting flora as a whole. The FAIRWAY project focuses on reviewing current approaches to protecting drinking water resources from pesticide and nitrate pollution¹³³.

LIFE programme

Portugal also benefits from the EU LIFE Programme, with its many interesting projects¹³⁴. It is currently engaged in

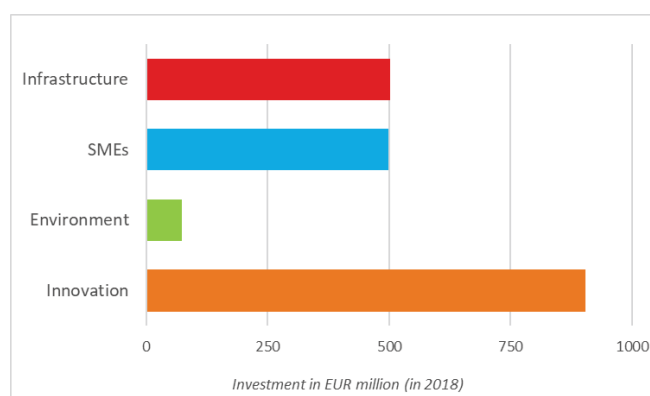
a LIFE capacity-building project designed to improve the country's overall capacity to take part in and make use of the LIFE Programme. The aim is to increase the number and improve the quality of projects submitted in response to the annual calls for proposals.

The EU has allocated EUR 20 million to Portuguese projects over 2014-2017¹³⁵. One good example is the LIFE Rupis, designed to conserve the Egyptian Vulture and Bonelli's Eagle in the Douro/Duero canyon.

European Investment Bank

The EIB Group¹³⁶ lent around EUR 2 billion to Portuguese businesses and public institutions in 2018, as shown in Figure 22. About EUR 73 million (3.7 % of the total) were directly invested in environment-related projects.

Figure 22 EIB loans to Portugal in 2018 ¹³⁷



European Fund for Strategic Investments

The European Fund for Strategic Investments – the EFSI – is the central pillar of the Investment Plan for Europe.

By January 2019, the EFSI had mobilised over EUR 2.5 billion in Portugal, and was set to trigger EUR 8.8 billion in additional investments¹³⁸.

This also includes projects in the field of the environment and resource efficiency. For instance, under the Juncker Plan the EIB is providing EUR 420 million to Águas de Portugal to finance investments in water infrastructure. This project will improve the quality and sustainability of water and wastewater services in Portugal by building new facilities and renovating older ones. This work will create and sustain over 7 400 jobs during the implementation stage.

¹²⁸ European Commission, [European Semester 2018, Country Report for Portugal](#), p.15.

¹²⁹ European Commission [own calculations based on CORDA \(Common Research Data Warehouse\)](#). A maximum grant amount is the maximum grant amount decided by the Commission. It normally corresponds to the requested grant, but it may be lower.

¹³⁰ i.e. (ii) Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy; (iii) Secure, clean and efficient energy; (iv) Smart, green and integrated transport; and (v) Climate action, environment, resource efficiency and raw materials.

¹³¹ European Commission [own calculations based on CORDA \(Common Research Data Warehouse\)](#).

¹³² European Commission, [Horizon 2020 Seeds Project](#).

¹³³ European Commission, [Horizon 2020 FAIRWAY Project](#).

¹³⁴ See [LIFE country factsheet for Portugal](#).

¹³⁵ Commission services based on data provided by EASME.

¹³⁶ The EIB Group includes EIB and EFSI investments and loans.

¹³⁷ European Investment Bank, [Portugal and the EIB](#), 2018.

¹³⁸ European investment Bank, [EFSI map](#).

National environmental financing

Portugal spent EUR 1.09 billion on environmental protection in 2016, a 5% fall since 2015¹³⁹. 39% of payments went on waste management (EU average: 49.7%). EUR 218.3 million were earmarked for waste water management (20% of the total) and EUR 75.5 million to pollution abatement (7% of the total). 5.4% of environmental expenditure (EUR 168 million) went on protecting biodiversity and the landscape. Between 2012 and 2016, general government funding for environmental protection totalled EUR 5.3 billion¹⁴⁰.

As it has been mentioned through the report, one of the challenges for Portugal is to ensure that environmental financing remains at an adequate level. Existent financial gaps in areas such as waste management, water quality and the support of green activities are delaying the correct implementation of EU environmental law and policies. Therefore, ensuring financial resources to reduce the implementation gap should be considered as a priority for the country.

2019 priority action

- Portugal should take advantage of the ESIF available for the 2014-2020 programming period in order to improve compliance with the EU environmental law and policy and to exploit the potential of the green economy for improving competitiveness and job creation.

¹³⁹ Eurostat, [General Government Expenditure by function](#), 2018.

¹⁴⁰ Eurostat, [General Government Expenditure by function](#), 2018.

5. Strengthening environmental governance

Information, public participation and access to justice

Citizens can more effectively protect the environment if they can rely on the three ‘pillars’ of the Aarhus Convention:

- (i) access to information;
- (ii) public participation in decision making; and
- (iii) access to justice in environmental matters.

It is of crucial importance to public authorities, the public and business that environmental information is shared efficiently and effectively¹⁴¹. 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 environment¹⁴². It includes the right to bring legal challenges (‘legal standing’)¹⁴³.

Environmental information

Portugal’s main portal is well designed¹⁴⁴, with links to national and EU environmental legislation. There are also links to all relevant environmental data portals, with easy navigation and data retrieval. However, Portuguese is the only language used, and there is no English version available and the search function does not always return the desired results. The portal has an attractive look, the homepage is logically structured, and navigation is straightforward. The one drawback is the lack of a clear link to the INSPIRE portal.

The INSPIRE portal is good, though slightly tricky to navigate. It contains a wealth of information, and the data search functions are user-friendly. All the necessary documents are available, as are related items of information and links to relevant websites.

Portugal’s implementation of the INSPIRE Directive could be better. Its performance has been reviewed on the basis of the country’s 2016 implementation report¹⁴⁵ and

¹⁴¹ The Aarhus Convention, the Access to Environmental Information Directive 2003/4/EC and the INSPIRE Directive 2007/2/EC together create a legal foundation for the sharing of environmental information between public authorities and with the public. This EIR focuses on INSPIRE.

¹⁴² The guarantees are explained in Commission Notice on access to justice in environmental matters, OJL 275, 18.8.2017 and a related Citizen’s Guide.

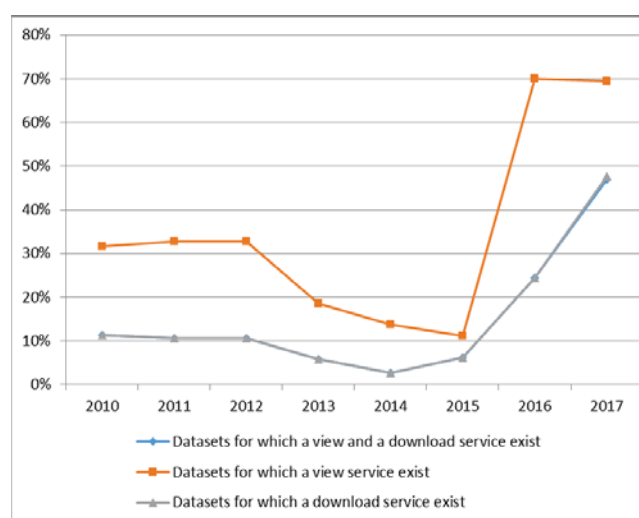
¹⁴³ This EIR looks at how well Member States explain access to justice rights to the public, and at legal standing and other major barriers to bringing cases on nature and air pollution.

¹⁴⁴ The Portuguese Environment Agency, [Environmental information portal](#)

¹⁴⁵ INSPIRE PT [country sheet](#) 2017

the most recent monitoring data (from 2017)¹⁴⁶. Data identification and documentation have made good progress, and implementation levels are good. However, more efforts are needed to: (i) make the data more widely accessible, (ii) improve the conditions for data reuse, and (iii) prioritise environmental datasets in implementation, especially those identified as high-value spatial datasets for implementing environmental legislation¹⁴⁷.

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



Public participation

Public participation is regulated mainly by the Portuguese Constitution, in particular Articles 48 and 66. Under Article 48, everyone has the right to participate in public affairs. Article 66 states that everyone has the right to a human, healthy and ecologically balanced environment. Other key legal provisions¹⁴⁸ are Article 12 of the Code for Administrative Procedures, which stipulates that the administration must involve the public in administrative decisions, and Articles 100 and 101, which define public hearings and consultations as part of administrative procedures. Law-Decree No 232/2007¹⁴⁹ also regulates public participation in plans and programmes.

¹⁴⁶ INSPIRE [monitoring dashboard](#)

¹⁴⁷ European Commission, [List of high value spatial data sets](#)

¹⁴⁸ The Portuguese Environment Agency (2018), [Access to justice](#).

¹⁴⁹ The Portuguese Republic, [Assembleia da República \(2007\), Decreto-Lei n.º 232/2007, Diário da República n.º232/2007, Série I de 2007-07-31, art. 3.](#)

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There is a central portal for public consultations on legislative documents that are in the process of being drafted¹⁵⁰.

In July 2015 an official portal called 'Participa' was launched to host all public consultations held by the Ministry for the Environment¹⁵¹. It has already been used for some 650 initiatives. This can be considered as a good practice in this field.

The 2017 Eurobarometer figures show that 86% of respondents think individuals have a role to play in protecting the environment. This figure is the same as in 2014.



Access to justice

Significant progress needs to be made to ensure that the general public knows how individuals and environmental associations can have access to justice on environmental matters under Portuguese and EU law. The information available online does not give a clear enough picture of how to obtain access to justice on environmental matters. Moreover, the information there is focuses on the costs involved in bringing a lawsuit.

Portugal allows both individuals and environmental associations to bring legal actions on environmental matters, namely under Article 7 of Law No 34/2004, as amended by Law No 47/2007. The system is quite liberal. Under Portuguese law, individuals and associations can be exempted from fees, giving them ready access to justice. The first mechanism for partial or full exemption from fees relies on judicial aid, which is available to people and non-profit organisations that would otherwise lack sufficient financial means. The second is the option of bringing *actio popularis* (a class action lawsuit)¹⁵². In general, if a lawsuit is filed with the intent to serve the public interest (as with environmental issues), the law exempts institutions and individuals from

judicial costs if they win their case. If they lose, on the other hand, the costs are declared –at the judge's discretion – to be a fraction of the usual value¹⁵³.

Costs for access to justice in Portugal can be classed as follows:

- 1) Judicial fees, which can be minimised as described above.
- 2) Costs incurred through instructing a lawyer, which is mandatory for court actions; however, when juridical aid is granted, representation is assigned by the professional order;
- 3) Costs for further substantiation of the case with opinions from relevant sources (technical or juridical) which are at the expense of the plaintiff.

According to informed opinion, the main deterrent from legal challenges in Portugal appears to be the high judicial costs¹⁵⁴.

2019 priority actions

- Improve access to spatial data and services by linking the central INSPIRE website more closely with regional portals, identify and document all spatial datasets required to implement environmental law¹⁵⁵, and make the data and documentation available to other public authorities and the public at least in its existing form, through the digital services for which the INSPIRE Directive makes provision.
- Inform the public better about access to justice, especially in relation to air pollution and nature.

¹⁵⁰The Portuguese Republic, [XXI Governo Constitucional \(2018\) Consultas públicas](#).

¹⁵¹The Portuguese Republic, [official portal 'Participa'](#)

¹⁵²The Portuguese Republic, [Assembleia da República \(1995\), Lei n.º 83/1995, Consolidada](#).

¹⁵³ Criteria for the value lies not only in the plaintiff's economic situation, but also in the reasons for dismissal (substance of the complaint or procedural reasons).

¹⁵⁴ European Commission Staff Working Document: Impact Assessment on a Commission Initiative on Access to Justice in Environmental Matters, [SWD\(2017\)255 final](#), p. 67. And Aragão, A. (2012), Study on the Implementation of Article 9.3 and 9.4 of the Aarhus Convention in Portugal, European Commission, p. 29–30, in particular 'even though the cost of engaging legal procedures is not prohibitive per se, substantial costs from proper representation, scientific advice or expert opinions are at the expense of plaintiff'.

¹⁵⁵ European Commission, [INSPIRE](#).

Compliance assurance

Environmental compliance assurance covers all the work undertaken by public authorities to ensure that industries, farmers and others fulfil their obligations to protect water, air and nature, and manage waste¹⁵⁶. It includes support measures provided by the authorities, such as:

- (i) compliance promotion¹⁵⁷;
- (ii) inspections and other checks that they carry out, i.e. compliance monitoring¹⁵⁸; and
- (iii) the steps that they take to stop breaches, impose sanctions and require damage to be remedied, i.e. enforcement¹⁵⁹.

Citizen science and complaints enable authorities to focus their efforts better. Environmental liability¹⁶⁰ ensures that the polluter pays to remedy any damage.

One of the topics discussed during the EIR dialogue with Portugal held in Lisbon on 14 March 2018 was environmental governance.

Compliance promotion and monitoring

The quality of online information to farmers on how to comply with obligations on nitrates and nature is an indicator of how actively authorities promote compliance in subject-areas with serious implementation gaps. In Portugal, information about obligations concerning nitrates is available on the websites of APA (the Portuguese Environmental Agency) and the Directorate-General for Agriculture and Rural Development (DGADR)¹⁶¹. Farmers can freely consult the Good Practice Manual¹⁶², which provides all relevant general information. Information on nature-related obligations for farmers is also publicly available¹⁶³.

Major industrial installations pose serious pollution risks. The public authorities are required to have plans to

inspect them and to make individual inspection reports available to the public¹⁶⁴. The IGAMAOT website provides publicly available guidelines on inspection planning in a Practical Guide for Environmental Inspectors¹⁶⁵ and a Supporting Guide for Environmental Inspections¹⁶⁶. Some individual inspection reports are also made available to the public.

Citizen science and complaint handling

Public engagement through approaches including citizen science can deepen knowledge about the environment and help the authorities in their work. The role of citizen science has been recognised in Portugal. The universities of Coimbra and Porto, for example, have started several initiatives that involve members of the public in environmental monitoring¹⁶⁷ ¹⁶⁸. Other bodies, such as REN, have also applied citizen science initiatives¹⁶⁹.

The availability online of clear information about how to make a complaint is an indicator of how responsive the authorities are to complaints from the public.

Portugal has established a well-developed complaint handling system. IGAMAOT has published a complaint handling manual which details the established procedures, including feedback to complainants¹⁷⁰. Detailed instructions on how to lodge complaints about environmental problems are publicly available, the authorities responsible are listed, and a mechanism exists to guarantee that complaints are passed on to the appropriate authority¹⁷¹.

ERSAR, the Portuguese Water and Waste Services Regulation Authority, has also established an online complaint-handling mechanism for users of these services.

iFAMA, the Single Platform for Inspection and Monitoring in the areas of agriculture, sea and the environment, was set up in 2017 and is expected to be operational by end of 2018. It aims to simplify administrative procedures, improve the efficiency of public services and their

¹⁵⁶ 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](#).

¹⁵⁷ This EIR focuses on the help given to farmers to comply with nature and nitrates legislation.

¹⁵⁸ This EIR focuses on inspections of major industrial installations.

¹⁵⁹ This EIR focuses on the availability of enforcement data and co-ordination between authorities to tackle environmental crime.

¹⁶⁰ [The Environmental Liability Directive 2004/35/EC](#), creates the framework.

¹⁶¹ [The Directorate-General for Agriculture and Rural Development \(2018\)](#).

¹⁶² The Portuguese Republic, Assembleia da República (2018), [Despacho n.º 1230/2018](#), Diário da República, 2.ª série, N.º 25 de 5 de fevereiro de 2018.

¹⁶³ The Portuguese Republic, Instituto da Conservação da Natureza e da Biodiversidade, I.P. (2011), [Integração das Orientações de Gestão do Plano Sectorial da Rede Natura 2000 nos Planos Municipais de Ordenamento do Território – Guia Metodológico](#), p.6.

¹⁶⁴ Article 23, [Industrial Emissions Directive, 2010/75/EU](#).

¹⁶⁵ The Portuguese Republic, IGAMAOT (2016), [Manual de Procedimento da EM CSI - Um Guia Prático para os Inspectores da Área Ambiental, p.25-30](#).

¹⁶⁶ The Portuguese Republic, IGAMAOT (2016), [Guia de Apoio às Inspeções Ambientais](#), p.5-7.

¹⁶⁷ The Portuguese Republic, Invasoras (2012), [Invasive Plants in Portugal](#).

¹⁶⁸ Research Centre in Biodiversity and Genetic Resources-CIBIO (n.a.), [Serralves em Flora](#).

¹⁶⁹ REN (2018), [Iniciativa de Citizen Science: Semana das ceqonhas](#).

¹⁷⁰ The Portuguese Republic, IGAMAOT, [a complaint handling manual, established procedures](#)

¹⁷¹ The Portuguese Republic, [IGAMAOT - Inspeção-Geral da Agricultura, do Mar, do Ambiente e do Ordenamento do Território \(2017\), Denunciar](#).

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relations with the public and business and make the complaint-handling system more efficient by:

- Making available a unique electronic form for complains.
- Providing a centralized database for submitting accidents/incidents reported to every environmental authorities, which should be updated and managed regularly.
- Providing a platform for exchange and management of information between environmental authorities and, when necessary, regulated entities.

The toll can be used also for risk assessments and better targeting of environmental inspections.

Enforcement

When monitoring identifies problems, a range of responses may be appropriate. The information that is publicly available in Portugal concerns mainly the number of breaches detected and relevant court decisions. However, it includes no details of whether compliance is achieved once follow-up measures and enforcement action have been taken¹⁷². There is a public perception that sanctions imposed by administrative authorities for environmental offences are often reduced by courts¹⁷³.

Follow-up actions to cases of non-compliance are undertaken, notably through the issuance of warrants, notifications, among others, for the verification of environmental obligations in an industrial facility¹⁷⁴. Reports on environmental performance in some industrial sectors are publicly available¹⁷⁵.

Reports with the main results of inspections are publicly available¹⁷⁶. Information from IGAMAOT on responses to cross-compliance breaches on nitrates is included in inspections reports. IGAMAOT reports' on ensuring legality on nature conservation are also publicly available¹⁷⁷.

Tackling environmental crimes including waste and wildlife crimes is especially challenging, requiring close cooperation between inspectors, customs authorities, police and prosecutors. Portugal has established a well-designed system of cooperation and coordination. Cooperation agreements exist between IGAMAOT and the Environmental Fund¹⁷⁸, the National IMPEL

Cooperation Network¹⁷⁹, DGT¹⁸⁰, the Attorney-General of the Republic¹⁸¹, the Financial Institute for Regional Development (*Instituto Financeiro para o Desenvolvimento Regional*, IFDR)¹⁸², the Republican National Guard (GNR) and the Safety and Security Police (*Polícia de Segurança Pública*, PSP¹⁸³).

The annual reports of the works developed by the National IMPEL Network are publicly available¹⁸⁴¹⁸⁵. Currently there are four national working groups ongoing, on use of satellite images and drones, environmental crime, cease environmental harm and complaints handling.

At the international level, contacts and joint actions have been carried out with the Spanish authorities Guardia Civil/Seprona, Inspeccion de Medio Ambiente of the Xunta de Galicia, Junta de Castilla y León, Junta de Extremadura and Junta de Andalucía, in order to consolidate an efficient Iberian enforcement network of Regulation (EC) No 1013/2006.

Environmental liability

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

2019 priority actions

- Inform the public better about compliance promotion, monitoring and enforcement by, at least, ensuring that more detailed information is available online to help farmers about how to comply with obligations on nature, and providing more online information on reports on industrial inspections.
- Publishing information on outcomes of enforcement action and of the follow-up to detected cross-compliance breaches on nitrates and nature.

¹⁷² The Portuguese Republic, IGAMAOT (2018), [20 Anos de Inspeção Ambiental em Portugal – 1997-2017](#), p.51.; Project Hermes, [Official Justice Statistics](#).

¹⁷³ [Altri company](#); [RTP Noticias news](#).

¹⁷⁴ IGAMAOT, [pages 85 to 87](#)

¹⁷⁵ IGAMAOT, [Relatórios Temáticos – Domínio Ambiental](#)

¹⁷⁶ IGAMAOT, [reports](#)

¹⁷⁷ IGAMAOT, [Relatórios Temáticos – Conservação da Natureza](#).

¹⁷⁸ IGAMAOT & Fundo Ambiental (2017), [Protocolo de Colaboração Técnica e Financeira](#).

¹⁷⁹ IGAMAOT (2017), [Relatório de síntese do trabalho desenvolvido pela Rede Nacional IMPEL](#), p.3.

¹⁸⁰ DGT & IGAMAOT (2012), [Protocolo de Colaboração entre a DGT e a IGAMAOT](#).

¹⁸¹ PGR & IGAMAOT (2014), [Protocolo de Colaboração entre a PGR e a IGAMAOT](#).

¹⁸² IFDR & IGAMAOT (2013), [Protocolo de Cooperação entre o IFDR e a IGAMAOT](#).

¹⁸³ PSP & IGAMAOT (2006), [Protocolo de Cooperação entre a PSP e a IGAMAOT](#).

¹⁸⁴ IGAMAOT (2017), [Relatório de síntese do trabalho desenvolvido pela Rede Nacional IMPEL](#), Janeiro 2016 – Março 2017.

¹⁸⁵ IGAMAOT (2018), [Relatório síntese do trabalho desenvolvido pela Rede Nacional IMPEL](#), Março 2017 – Abril 2018.

Effectiveness of environmental administrations

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

Administrative capacity and quality

Environmental policy developments in Portugal are driven mainly by EU Directives and Regulations, and the relevant EU rules are generally transposed in time. The number of complaints and infringements about the environment is currently below the EU average.

The implementation of EU environmental law in the various sectors concerned has overall improved over the last decade. For instance, there has been progress with implementing environmental assessments. A recent package of legislation designed to speed up the licensing of projects of national interest raised some doubts, but no serious problems were identified when it was implemented.

Coordination and integration

As mentioned in the 2017 EIR, the transposition of the revised Environmental Impact Assessment (EIA) Directive¹⁸⁶ into national law provides an opportunity for countries to streamline their regulatory framework for environmental assessments. Portugal has transposed the revised Directive into national law, although it did not meet the deadline for full transposition (May 2017).

The Commission encourages the streamlining of environmental assessments to reduce duplication and avoid overlaps in environmental assessments for projects. Streamlining also helps reduce unnecessary administrative burdens and speeds up decision-making, without compromising the quality of the environmental assessment procedure¹⁸⁷. Portugal started streamlining environmental assessments under the EIA and Habitats Directives even before the EIA Directive was revised. Coordinated procedures have been established for the EIA Directive, the Water Framework Directive and the Industrial Emissions Directive.

¹⁸⁶ Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

¹⁸⁷ The Commission issued a guidance document in 2016 regarding the setting up of coordinated and/or joint procedures that are simultaneously subject to assessments under the EIA Directive, Habitats Directive, Water Framework Directive, and the Industrial Emissions Directive, OJ C 273, 27.7.2016, p. 1.

The Single Environmental Permitting Platform, developed to operationalise the Single Environmental Permitting Regime, is an example of good practice. It simplifies, standardises and links a large number of environmental permits.

Adaptability, reform dynamics and innovation (eGovernment)

Increasingly, Portuguese public authorities are adopting and deploying electronic services that enable them to interact online with the public or regulated bodies, Portugal ranked 12th out of the EU-28 on the 2018 Digital Economic Society Index (DESI), with a score of 58, same than the EU average¹⁸⁸.

Though Portugal's overall score has risen slightly, the proportional increase is below the EU average. The country's scores have risen in all dimensions of DESI except integration of digital technologies¹⁸⁹.

Portugal is developing some interesting and innovative tools in the environmental field. One example is E-GAR, a platform for information accompanying waste shipments that replaces four paper documents by a single digital one. This was introduced in 2017.

Enabling financing and the effective use of funds

The Portuguese authorities have considerable experience in the management of EU funding and there are no major problems here. However, sometimes environmental projects suffer delays, for instance, because of the length of procedures to obtain the national co-financing, or to undertake the public procurement procedures.

International agreements

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

The EU is committed to strengthening environmental law and its implementation globally. It therefore continues to support the Global Pact for the Environment process, which was launched by the United Nations General Assembly in May 2018¹⁹⁰. The EIR is one of the tools to ensure that the Member States set a good example by respecting European Union environmental policies and laws and international agreements.

¹⁸⁸ European Commission, [Digital Economy and Society Index Report 2018, Digital Public Services](#).

¹⁸⁹ European Commission, [Europe's Digital Progress Report \(EDPR\) 2017 Country Profile Spain](#), p. 10.

¹⁹⁰ [UN General Assembly Resolution 72/277](#) and [Organizational session of the ad hoc open-ended working group](#).

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Portugal has signed, but not yet ratified, two agreements under the Convention on Long-Range Transboundary Air Pollution: (i) the Persistent Organic Pollutions Protocol and (ii) the Heavy Metals Protocol. The same applies to the Nagoya Protocol.

Forests: EU Timber Regulation (EUTR)¹⁹¹/ Forest Law Enforcement, Governance and Trade (FLEGT) Regulation¹⁹²

The European Timber Trade Regulation (EUTR), which bans placing illegally harvested timber on the EU market¹⁹³, stipulates that EU countries' competent authorities must conduct regular checks on operators and traders and impose penalties in the event of non-compliance.

From March 2015 to February 2017, Portugal conducted 152 checks on domestic timber traders and 166 checks on timber importers. The number of checks must be correlated with the estimated number of operators in Portugal¹⁹⁴. As regards quality, the limited volume of customs data to which Portugal's competent authorities have access makes it difficult for them to establish a sound risk-based inspection system.

The Portuguese authorities have not so far imposed any penalties on operators for failing to meet their EUTR obligations, but have been issuing a number of notices for remedial action.

In February 2018, the EUTR Indicator System has been made available online in order to facilitate the follow-up of the EUTR implementation in Portugal.

As regards cooperation (Article 12 EUTR), Portugal reported collaboration with other government institutions in Spain and other EU competent authorities, mainly through FLEGT/EUTR Expert Group meetings and the Ad-Hoc Expert Group on FLEGT. Portugal has also been actively involved in the launching of the EUTR Mediterranean network, notably by hosting an inaugural meeting in June 2018 in Lisbon¹⁹⁵.

Genetic resources: Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising (ABS)¹⁹⁶

In accordance with the EU ABS Regulation, which incorporates the compliance measures required under the Nagoya Protocol into the EU legal order, Portugal has designated competent authorities and enacted sanctions for infringements of the Regulation. Work to set up a risk-based plan for checks is ongoing. No due diligence declaration has yet been submitted, and no penalties have been imposed. Portugal submitted its first report to the Commission on the implementation of the EU ABS Regulation at the end of 2017.

International wildlife trade: the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)¹⁹⁷

Portugal has met the obligations laid down in the Basic Regulation¹⁹⁸, which incorporates into EU law the major obligations stemming from the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): it has established relevant national authorities and regularly processes requests for import, export and re-export and intra-EU trade documents.

Reports on seizures of illegal shipments, in particular those reported every six months to TRAFFIC under its contract with DG ENV, and those exchanged through the EU-TWIX platform, testify to the activity of customs authorities.

2019 priority action

- Increase efforts to be party to relevant multilateral environmental agreements, by signing and ratifying the remaining agreements.

¹⁹¹ [Regulation \(EU\) No 995/2010 of the European Parliament and of the Council of 20 October 2010](#)

¹⁹² [Regulation \(EC\) No 2173/2005](#) of 20 December 2005 on the establishment of a FLEGT licensing scheme for imports of timber into the European Community.

¹⁹³ See [Commission's website](#) on the Timber Regulation.

¹⁹⁴ Based on customs data, it is estimated that 2525 Portuguese operators placed domestic timber on the EU market for the first time and that 853 imported timber.

¹⁹⁵ Under the EIR-P2P, a Workshop was held to strengthen cooperation among eight Mediterranean EU countries and to improve and harmonise implementation of the EUTR in the Mediterranean region.

¹⁹⁶ Regulation (EU) No 511/2014 of the European Parliament and of the Council of 16 April 2014 on compliance measures for users from the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation in the Union Text with EEA relevance.

¹⁹⁷ [The Convention on International Trade in Endangered Species of Wild Fauna and Flora \(CITES\)](#).

¹⁹⁸ [Council Regulation \(EC\) No 338/97](#) on the protection of species of wild fauna and flora by regulating trade therein (the Basic Regulation)

Sustainable development and the implementation of the UN SDGs

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

The sustainable development goals (SDGs) are integrated in policymaking at several levels, beginning with bringing Portugal's national strategy into line with the United Nations international agenda. To achieve this, Portugal's Ministry of Foreign Affairs has set up task forces to improve internal ministerial coordination and draw up reports. Individual ministries have also been given responsibility for implementing, regulating and monitoring specific SDGs¹⁹⁹. Portugal's strategy is to tackle all 17 SDGs through five targeted approaches (the 5P approach), though SDGs 4, 5, 9, 10, 13 and 14 are particular priorities²⁰⁰. The Portuguese Government sets specific goals to be achieved by 2030, and changes in the relevant indicators are measured statistically (where statistical monitoring is applicable) by the National Statistics Institution (INE)^{201,202}.

One example is Target 14.4: 'By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics.' This is monitored by looking at changes in indicator 14.4.1 ('Proportion of fish stocks within biologically sustainable levels')²⁰³.

The National Reform Programme (*Programa Nacional de Reformas*)²⁰⁴ is the overarching document covering the SDGs to be achieved. It draws on the various programmes that contribute to the reform plan and provides indicators for measuring progress.

The National Reform Programme highlights several public sources of financing other than EU funds to be assigned to specific areas. They include the following.

- 1) Education: Fund for Innovation, Technology and the Circular Economy (FITEC);
- 2) Promoting innovation and entrepreneurship: 200M fund, Fund for Tourism Growth (Fundo Turismo Crescimento) and the Fund to Support Theatre and Tourism (Fundo de Apoio ao Cinema e Turismo);
- 3) Increasing Territorial Value: the Blue Fund (Fundo Azul), the Public Transport Infrastructure Fund (Fundo para o Serviço de Transportes Públicos) and the Environmental Fund. As regards the environment, the operational programme POSEUR will provide EUR 2,5 billion to 2020.

In 2017, Portugal sent the UN its voluntary national review on implementing the SDGs²⁰⁵

¹⁹⁹ Ministério dos Negócios Estrangeiros (2017), [Relatório nacional sobre a implementação da Agenda 2030 para o Desenvolvimento Sustentável PORTUGAL](#), p.8-9,.

²⁰⁰ Ministério dos Negócios Estrangeiros (2017), [Relatório nacional sobre a implementação da Agenda 2030 para o Desenvolvimento Sustentável PORTUGAL](#), p.10-12,.

²⁰¹ INE (2017), [Indicadores de Desenvolvimento Sustentável - Agenda 2030 – 2017](#),.

²⁰² Ministério dos Negócios Estrangeiros (2017), [Relatório nacional sobre a implementação da Agenda 2030 para o Desenvolvimento Sustentável PORTUGAL](#), p.86-87.

²⁰³ Instituto Nacional de Estatística (2018) [Sustainable Development Goals Lisboa](#), Instituto Nacional de Estatística, p. 176-179

²⁰⁴ XXI Governo Constitucional (2018), [Programa Nacional de Reformas](#).

²⁰⁵ UN, [National report on the implementation of the 2030 Agenda for Sustainable Development: Portugal](#).