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

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**COMMISSION STAFF WORKING DOCUMENT**

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

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

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## Executive summary

### Slovenia and the Environmental Implementation Review (EIR)

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

- to streamline the legal **planning and environmental assessments framework** in compliance with EU legislation;
- to preserve Slovenia's extensive **Natura 2000 network** by integrating nature considerations in the planning and environmental assessment system; and
- to prioritise **wastewater** investments so that Slovenia can fulfil its Accession Treaty obligations.

In its **EIR national dialogue** in January 2018, Slovenia focused on its environmental protection action programme, on air quality and on its revised spatial planning legislation. Stakeholders interested in environmental policy participated in the event. Following the EIR national dialogue, a bilateral dialogue between Slovenia and the Commission on the action plan for nature, people and the economy took place in March 2018.

In 2017, the Commission launched the TAIEX-EIR Peer to Peer (**EIR P2P**) tool to facilitate peer learning between experts from national environmental authorities. A Slovenian expert participated in a P2P workshop in Budapest. Slovenian experts also participated in a reciprocal study visit on waste management in the Evora region in Portugal and in Ljubljana. A P2P expert mission on noise protection is also planned in cooperation with Austrian experts in March 2019.

### Progress on meeting challenges since the 2017 EIR

Slovenia has passed new **spatial planning legislation** (the Spatial Planning Act and the Construction Act) to become fully compliant with EU law on environmental assessment and access to justice.

On **nature conservation**, Slovenia has made good progress in mapping and assessing its ecosystem services. However, more work is needed to safeguard the country's rich natural heritage. In this area, there are shortcomings in managing Natura 2000 sites and ensuring compliance with the nature directives.

The 2019 EIR shows that Slovenia needs to make

particular efforts to comply with the Urban **Wastewater Treatment Directive**. It needs to adopt a realistic action plan to prioritise wastewater investments, complete the delineation of agglomerations (i.e. population centres or places of economic activity) and ensure an adequate budget for staff and other resources.

A 2013-2018 **noise** action plan — which has generated considerable public interest — has also been adopted, albeit with some delay.

The 2019 EIR shows that Slovenia has strengthened its **economic instruments** to increase the budget available for residual waste treatment.

### Examples of good practice

- As the **circular economy** has increased in importance, Slovenia has put in place a solid framework, in the form of the 'roadmap towards the circular economy in Slovenia'. Local and regional authorities have contributed significantly to the policy. Several of Slovenia's good practices are shown on the European circular economy stakeholder platform's website. Examples include Ljubljana's project turning invasive plants into a recycled paper; or the Econyl project collecting and reprocessing used nylons, mainly from the fishing industry, into an innovative ecological material — 'econyl'.
- Slovenia can be a role model on improving a **separate collection** and **increasing recycling rates** in a relatively short time, putting in place different tools (e.g. a separate collection in Ljubljana, awareness raising campaigns for citizens, landfill tax).
- Slovenia is one of the few Member States that makes **green public procurement** (GPP) mandatory. However, despite an increase in GPP from 8 % to 17 % of the total value of tenders between 2013 and 2015 there is further potential to grow.
- The tax regime creates favourable conditions to protect the environment as Slovenia boasts one of the highest shares of **environmental tax** revenues in Gross Domestic Product (GDP) across the EU.

## Part I: Thematic areas

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

#### Measures towards a circular economy

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

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

The circular economy monitoring framework<sup>3</sup> tracks key trends and patterns to understand how the various elements of the circular economy are developing and whether sufficient action has been taken. Among other key indicators, the circular (secondary) use of material in Slovenia was 8.5 % in 2016 (EU-28 average 11.7 %) — a decrease compared with previous years. On the other hand, Slovenia performs above the EU-28 average on the number of people employed in the circular economy (2.09 % of total employment in 2016 vs the EU-28 average of 1.73 %).

In the 2017 Eurobarometer<sup>4</sup> on attitudes of EU citizens towards the environment, 92 % of Slovenian people said they were concerned about the effects of plastic products on the environment (EU-28 average 87 %). 93 % said they were worried about the impact of chemicals (EU-28 average 90 %). Thus, Slovenian society appears to strongly support circular economy initiatives and environmental protection measures.

The 2018 'roadmap towards the circular economy in Slovenia' sets the path for Slovenia to become one of the

region's leaders in the circular economy. The roadmap identifies four priority sectors, gives recommendations to the government and identifies best practices. The roadmap introduces the 'circular triangle' model which unites three inseparable elements: (i) circular economy (business models); (ii) circular change (government policies); and (iii) circular culture (citizens). The roadmap aims to involve stakeholders in identifying and connecting practices that are compatible with the circular economy and in producing recommendations for the government to help the transition.



As part of its circular economy agenda, Slovenia also adopted its framework programme for the transition to a green economy<sup>5</sup> in October 2015. This sets out strategic guidelines on how to develop new green technologies, create jobs and promote Slovenian knowledge. It includes measures in nine areas: sustainable resource management; green growth; green jobs; green products and services; green tax reform; sustainable urban development; green public sector; green economy; and green practices in agriculture.

Resource productivity (how efficiently the economy uses material resources to produce wealth)<sup>6</sup> has improved overall in Slovenia in the last 10 years. However, it is still below the EU average, especially compared with the EU-15. In 2017, it reached 1.43 EUR/kg compared to the EU average of 2.04 EUR/kg (see Figure 1).

<sup>1</sup> European Commission, [2018 Circular Economy Package](#).

<sup>2</sup> [COM\(2018\) 029](#).

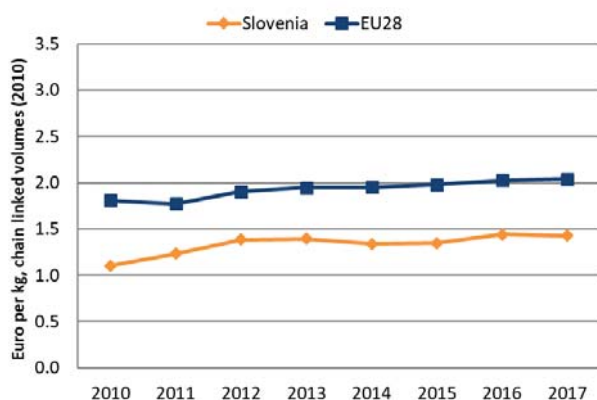
<sup>3</sup> European Commission, [2018 Circular Economy Package](#).

<sup>4</sup> European Commission, [Indicators for the Circular Economy Monitoring Framework](#), 2018.

<sup>5</sup> Slovenian Government, [Framework Programme for the Transition to a Green Economy](#), 2015.

<sup>6</sup> Resource productivity is defined as the ratio between gross domestic product (GDP) and domestic material consumption (DMC).

Figure 1: Resource productivity 2010-2017<sup>7</sup>



As part of its ‘smart specialisation strategy’<sup>8</sup>, Slovenia has a well-developed plan to make the best possible use of the European Structural and Investment Funds to accelerate the transition to a circular economy.

In December 2016, the Republic of Slovenia became a ‘government and cities’ member of the Ellen MacArthur Foundation’s international Circular Economy 100 (CE100) programme which seeks to form a network of economic partners that will take circular economy-related measures to preserve natural resources and that will exchange best practices and encourage innovation<sup>9</sup>.

Slovenia’s transition towards a circular economy is also thanks to a significant contribution from local and regional authorities. For example, Ljubljana was awarded the title of European Green City 2016, for being the European capital with the highest share of separated waste collected (63%)<sup>10</sup> and the first capital in the EU in the ‘zero waste’ programme which is inspired by circular economy principles. In addition, in the city of Maribor, a number of committed stakeholders have developed umbrella projects to make the transition towards a circular economy model<sup>11</sup>.

Slovenia also hosted the ‘circular change’ conference in May 2017 and identified the circular economy as a major opportunity for the country.

2019 priority action

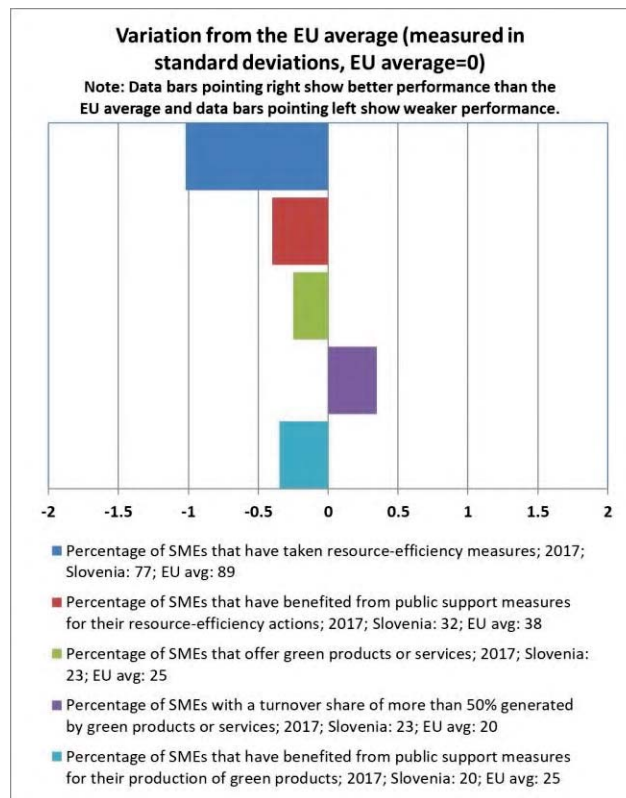
- Continue efforts to speed up the uptake of the circular economy by all economic sectors.

SMEs and resource efficiency

Slovenian SMEs are broadly in line with the EU average in the environmental aspects of the Small Business Act<sup>12</sup>.

The proportion of SMEs benefiting from public support measures for their resource-efficiency measures and the proportion of those that have taken such measures both fell in 2013-2015. In addition, the percentage of companies that offer green products is close to the EU average and the percentage that generate most of their revenue from such products is much higher than the EU average.

Figure 2: Environmental performance of SMEs<sup>12</sup>



The latest Eurobarometer on ‘SMEs, resource efficiency and green markets’<sup>13</sup> asked companies about both recent resource-efficiency actions they had taken and additional resource-efficiency actions they planned to take in the next 2 years. The Eurobarometer then compared these responses with responses given to the same questions in 2015. 22 % of Slovenian companies have taken no resource efficiency measures (EU-28 average 11 %) and 62 % (+29 %) say they do not intend to take any further measures. This is completely in contrast to the EU-28 average.

Saving materials and minimising waste have both increased in recent years — 52 % (+7 %) and 51 % (+11 %) of companies have taken measures in these respective

<sup>7</sup> Eurostat, [Resource productivity](#).

<sup>8</sup> Slovenian Government, [Slovenia’s Smart Specialisation Strategy](#), 2015.

<sup>9</sup> Ellen MacArthur Foundation, ‘[Slovenia joins the Circular Economy 100 programme](#)’, December 2016.

<sup>10</sup> [GreenLjubljana website](#).

<sup>11</sup> Wcycle project, [official presentation](#).

<sup>12</sup> European Commission, [2018 SBA fact sheet - Slovenia](#), p.18.

<sup>13</sup> Flash Eurobarometer 456 ‘SME, resource efficiency and green markets’ January 2018. The 8 dimensions were Save energy; Minimise waste; Save materials; Save Water; Recycle by reusing material internally; Design products easier to maintain, repair or reuse; Use renewable energy; Sell scrap materials to another company.

areas in the 2 years preceding the survey. However, even in these two areas only 10 % of respondents say that they intend to invest further.

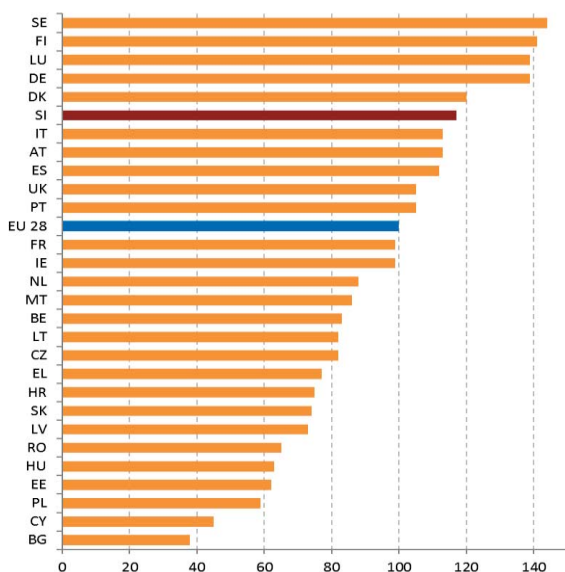
At 18 % (+7 %), the proportion of Slovenian companies that rely on external support in their efforts to be more resource efficient is close to the EU average of 22 % (EU range 3 %-38 %). For advice, 26 % (+9 %) of companies rely on private sector consultancy, 21 % on business associations and only 7 % on public sector advice. For financing, 27 % of those collaborating with external partners make use of public grants and loans and only 11 % make use of private sector banks and funds.

SMEs are increasingly interested in getting help to cooperate better in networks. Considering Slovenia’s small consultancy market, networking among public and private actors in the field of resource efficiency could be a first step towards increasing interest in the topic<sup>14</sup>.

**Eco-innovation**

Slovenia ranked 12th on the 2018 European Innovation Scoreboard, with a 1.4 % increase since 2010<sup>15</sup>. However, with a total score of 117 in the overall Eco-innovation Scoreboard 2017, Slovenia ranked 6th in the EU (see Figure 3).

**Figure 3: 2017 Eco-innovation index (EU=100)<sup>16</sup>**



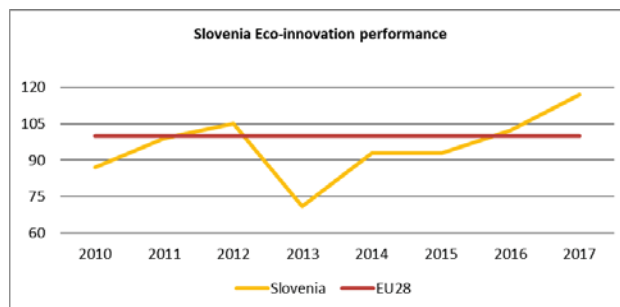
Slovenia has made significant progress in eco-innovation since 2014 (see Figure 4).

<sup>14</sup> Adding up the individual indications for finance (public + private + friends) and advice (public + private consultancy + business associations) and ‘other’, the sum is 109 for the Slovenian SMEs; 185 for Austrian SME; 172 for the EU-28.

<sup>15</sup> European Commission, [European innovation Scoreboard 2018](#), p. 15.

<sup>16</sup> European Commission, [Eco Innovation Observatory: Eco-Innovation Scoreboard 2017](#).

**Figure 4: Slovenia’s eco-innovation performance<sup>17</sup>**



Although Slovenia has no specific eco-innovation policy, it has taken some positive regulatory and political steps in the last 2 years. The government has put in place a clear policy for a greener and more circular economy (see the circular economy section).

The state plays a key role in eco-innovation by promoting long-term collaboration in form of research & innovation partnerships (SRIPs). These involve interested stakeholders in all relevant areas of Slovenia’s ‘smart specialisation’ strategy. More than 400 companies and 100 knowledge institutions currently participate in SRIPs with more expected to join.

The business sector is an increasingly important driver for eco-innovation, as government budget appropriations for research and development (R&D) continue to decrease. EU funding is also an important encouragement for R&D. The Green Public Procurement is also a valuable tool in this respect and the adoption of a new decree on green public procurement (January 2018) is a step in a right direction<sup>18</sup>.

Other major barriers to eco-innovation are the lack of a green budget reform<sup>19</sup>, the insufficient inter-ministerial coordination, limited access to funding, and an inefficient transfer of knowledge from higher education to the private sector<sup>20</sup>.

Slovenia has only 11 out of the EU’s 3 814 Eco-Management and Audit Scheme (EMAS) registered organisations and 17 sites out of 13 205 registered sites<sup>21</sup>. Regarding EU Ecolabel products, Slovenia has only

<sup>17</sup> European Commission, [Eco Innovation Observatory: Eco-Innovation Scoreboard 2017](#).

<sup>18</sup> European Commission, Eco-Innovation Observatory, [Country profile 2016-2017: Slovenia](#).

<sup>19</sup> The green budget reform can be understood as “a transformation of Europe’s budgets and tax systems to ensure that Europe in the 21st century is environmentally, economically and socially sustainable.”, based on the definition of the aim of the [Green Budget Europe](#).

<sup>20</sup> European Commission, Eco-Innovation Observatory, [Country profile 2016-2017: Slovenia](#).

<sup>21</sup> European Commission, [Eco-Management and Audit Scheme](#), September 2018.



30 licences<sup>22</sup> covering 72 products compared to the EU 2 167 licences covering 72 227 products<sup>23</sup>.

## Waste management

Turning waste into a resource is supported by:

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

This section focuses on management of municipal waste<sup>24</sup> for which EU law sets mandatory recycling targets<sup>25</sup>.

Slovenia has made good progress on municipal waste management in the past years. In 2017, its municipal waste recycling rates were well above the EU-28 average (58 % vs 46 %) and have increased considerably since 2010 (see Figure 5)<sup>26</sup>. However, regarding the quality of the data, Slovenia reported a significant gap between data on waste generated and data on waste treated<sup>27</sup>. For the latest reported data, the gap is still considerable at 21 %. The wide variation in the last years (see Figure 5) was due to incomplete coverage of outputs from pre-treatment of waste<sup>28</sup>.

Despite the uncertainty of the data, Slovenia can still serve as a good example of how to improve waste management in a short time and which tools (e.g. a separate collection in Ljubljana, awareness raising campaigns for citizens, landfill tax) work best to increase separate collection and recycling rates.

<sup>22</sup> The licences were awarded in the following product group categories: holiday accommodation (17), paper products (6), cleaning up (5), DIY (1) and personal care (1).

<sup>23</sup> European Commission, [Ecolabel Facts and Figures](#), September 2018.

<sup>24</sup> 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.

<sup>25</sup> See Article 11.2 of [Directive 2008/98/EC](#). This Directive was amended in 2018 by Directive (EU) 2018/851, and more ambitious recycling targets were introduced for the period up to 2035.

<sup>26</sup> All the rates in this report are calculated based on the generation of municipal waste in the given year.

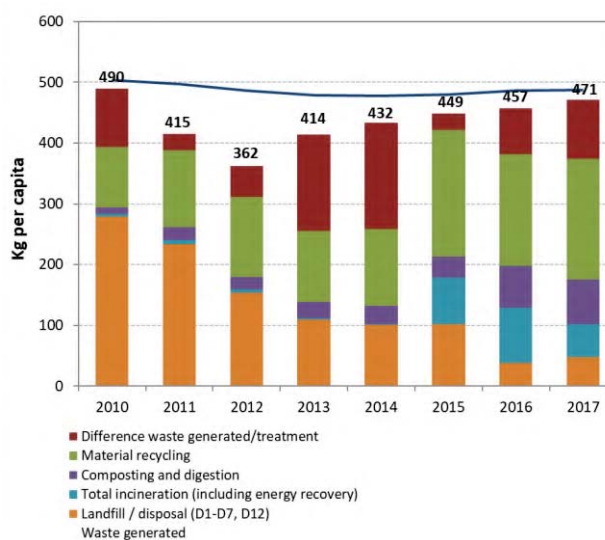
<sup>27</sup> Furthermore, Slovenia currently measures recycling performance based on the quantity of collected wastes, thus possibly overstating the amount of actual materials recycled, due to significant losses before recycling. More accurate recycling rates will be available once data on quantities sent for final recycling are reported.

<sup>28</sup> The issue has been spotted by the Slovenian Court of Auditors which suggested that the data is not reliable due to inaccurate records being kept by the ministries. Additional issues spotted is the potential existence of free riders in the EPR system for packaging.

Slovenia produces an average of 471 kg of municipal waste per person, per year. However, according to 2017 studies<sup>29</sup> the performance on waste generation varies widely between municipalities. Contributing factors include: (i) the lifestyle and awareness of residents; (ii) the municipality's capacity for waste disposal; and (iii) the willingness of municipalities to find new solutions.

Figure 5 shows an increase in material recycling, composting and incineration rates and a sharp decrease in landfilling.

**Figure 5: Municipal waste by treatment in Slovenia 2010-2017**<sup>30</sup>



The country's success is mainly due its efforts to change waste management policy, moving from a nearly all-landfilling (the landfilling rate was 65 % in 2007) to a predominantly recycling society. In 2017, the landfilling rate was 10 % and the incineration rate was 11 % —an important increase since 2014.

As shown in Figure 6, Slovenia's municipal waste recycling rate is growing faster than the EU-28 average. With a 58 % recycling rate for 2017, Slovenia has already exceeded the 2020 municipal waste recycling target of 50 %<sup>31</sup> and is now focusing on the post-2020 recycling targets<sup>32</sup>.

<sup>29</sup> European Commission, 2016. [Support to Implementation — The Commission helps eight Member States to improve their municipal waste management, Slovenia country factsheet.](#)

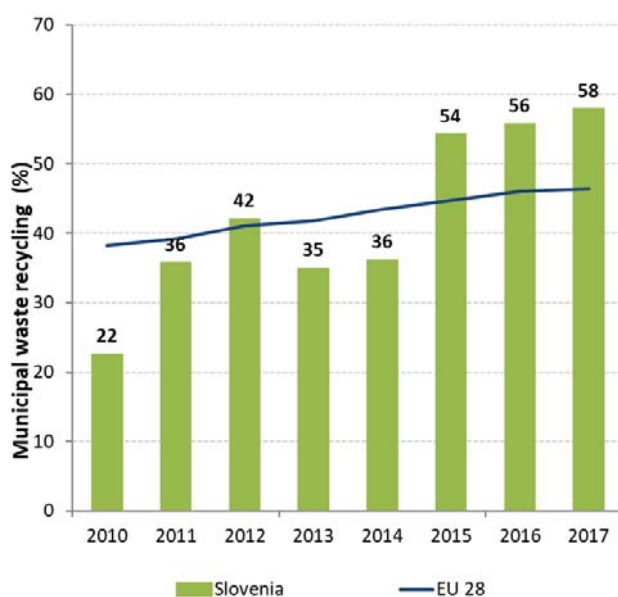
<sup>30</sup> Eurostat, [Municipal waste by waste operations.](#)

<sup>31</sup> Member States may choose a different method than the one used by ESTAT (and referred to in this report) to calculate their recycling rates and track compliance with the 2020 target of 50 % recycling of municipal waste.

<sup>32</sup> [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.

In 2016, Slovenia adopted a second waste management plan<sup>33</sup> to update the 2013 plan and expand it to cover all waste streams. This has led to several positive developments in municipal waste management and in waste prevention. For example, Slovenia has adopted legislation for separate bio-waste collection when composting at home is not possible. There are also plans to increase home composting. Other key measures to divert bio-waste from landfilling include promoting high quality compost and digestate for fertilising purposes and guidance on good composting practices.

**Figure 6: Recycling rate of municipal waste 2010-2017<sup>34</sup>**



Slovenia has also introduced 'pay-as-you-throw' schemes, although they only apply to residual and bio-waste bins. Separate collection systems operate across Slovenia. They entail: (i) a door-to-door collection system to collect bio-waste (covering more than 90 % of the country) and residual waste; and (ii) a drop-off system for dry recyclables.

On waste infrastructure, in addition to installations for mechanical biological treatment and incineration, other sites will help to divert waste away from landfilling. Examples include the network of reuse and waste prevention centres (planned capacity 5000 t/y) and the expanding set of recycling/composting plants.

The 2016 waste management plan sets out a clear framework for the measures that are planned to further improve municipal waste management in Slovenia.

However, it is unclear how these measures will be funded and their implementation is therefore uncertain.

### 2019 priority actions

- Introduce new policy instruments, including economic ones, to promote waste prevention, make reuse and recycling more economically attractive and shift reusable and recyclable waste away from incineration.
- Improve and extend separate collection of waste, including for bio-waste. Set mandatory recycling targets for municipalities with measures in case of non-compliance (e.g. fines).
- Improve the functioning of extended producer responsibility systems, in line with the general minimum requirements on EPR<sup>35</sup>.
- Improve data on waste management.
- Close and rehabilitate the non-compliant landfills as a matter of priority.

### 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 total revenues from the auctioning of emission allowances under the EU Emissions Trading System (EU ETS) over the years 2013-2017 were EUR 103 million. Slovenia has spent 67 % of the auctioning revenues on climate and energy purposes.

For emissions not covered by the EU ETS, Member States have binding national targets under the Effort Sharing legislation<sup>36</sup>. Slovenia had lower emissions than its annual targets in each of the years 2013-2017. For 2020, Slovenia's national target under the EU Effort Sharing Decision is to avoid increasing emissions by more than 4 % compared to 2005. For 2030, Slovenia's national target under the Effort Sharing Regulation will be to reduce emissions by 15 % compared to 2005 (see Figure 8).

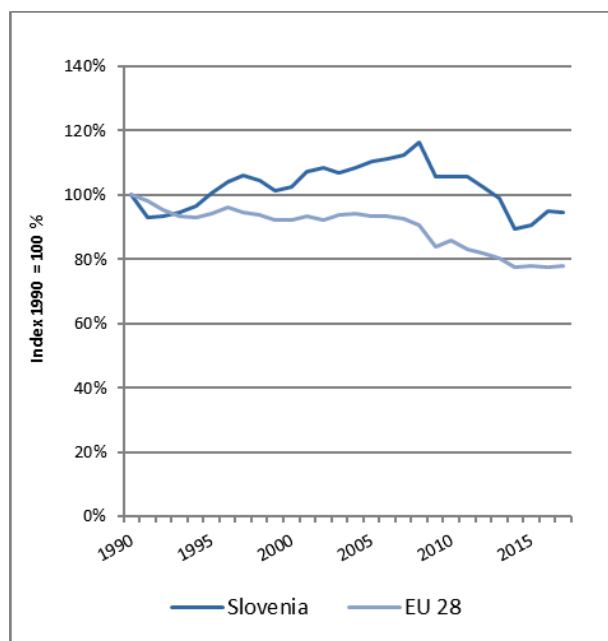
<sup>33</sup> [Programme](#) for management of waste and Waste prevention programme of the Republic of Slovenia in accordance with the requirements of the Regulation on waste, Regulation on the management of packaging and packaging waste, and the Landfill Regulation.

<sup>34</sup> Eurostat, [Recycling rate of municipal waste](#).

<sup>35</sup> [Directive \(EU\) 2018/851](#).

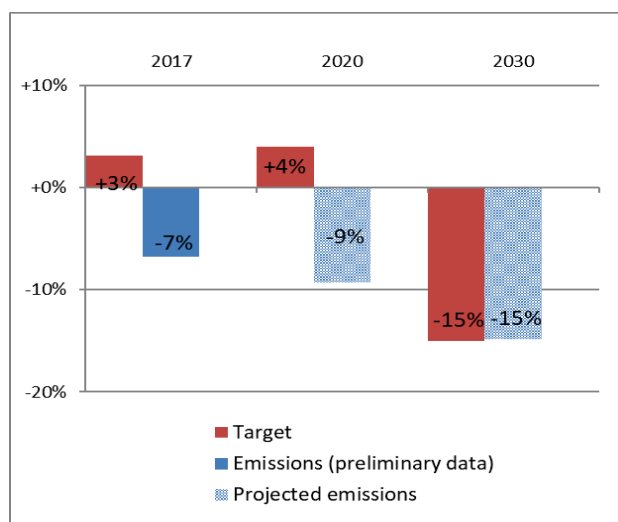
<sup>36</sup> [Regulation \(EU\) 2018/842](#).

**Figure 7: Change in total greenhouse gas emissions 1990-2017 (1990=100%)<sup>37</sup>**



Slovenia has an Operational Programme for reducing greenhouse gas emissions by 2020 with an outlook to 2030. The Operational Programme sets indicative sectorial targets to reduce greenhouse gas emissions in the non-ETS sectors.

**Figure 8: Targets and emissions for Slovenia under the Effort Sharing Decision and Effort Sharing Regulation<sup>38</sup>**



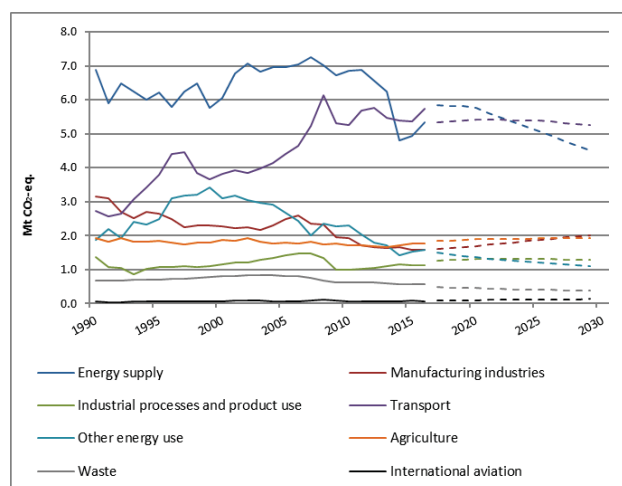
<sup>37</sup> Annual European Union greenhouse gas inventory 1990–2016 ([EEA greenhouse gas data viewer](#)). Proxy GHG emission estimates for 2017 Approximated EU greenhouse gas inventory 2017 (European Environment Agency). Member States national projections, reviewed by the European Environment Agency.

<sup>38</sup> 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.

Slovenia’s long-term climate strategy for next thirty years will be prepared in accordance with the EU legislation. Transition to a low carbon economy is already partly elaborated in the Slovenian Development Strategy.

In June 2017, the Ministry of Infrastructure published a first document for public debate on the new Energy Concept of Slovenia, to be subsequently approved by the Parliament. The Concept is expected to set an objective to reduce greenhouse gas emissions by 80% by 2050 compared to 1990 and to reach a share of at least 52% renewable energy sources. The draft document also foresees an increase in the share of renewable energy in final energy consumption to 27% by 2030. This increase could be more aspirational taking into account the EU ambition level for 2030 expected under the Recast of the Renewable Energy Directive of the Energy Union was revised upwards to 32%.

**Figure 9: Greenhouse gas emissions by sector (Mt. CO<sub>2</sub>-eq.). Historical data 1990-2016. Projections 2017-2030<sup>39</sup>**



To control emissions from fluorinated greenhouse gases (F-gases), Member States must implement training and certification programmes and rules for penalties and notify these measures to the Commission by 2017. Slovenia 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, -0.3 Mt CO<sub>2</sub>-eq<sup>40</sup> per year, which corresponds to 0.2% of the EU-28 accounted sink of -

<sup>39</sup> 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.

<sup>40</sup> Eurostat: A carbon dioxide equivalent or CO<sub>2</sub> equivalent, abbreviated as CO<sub>2</sub>-eq is a metric measure used to compare the emissions from various greenhouse gases on the basis of their global-warming potential, by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.

115.7 Mt CO<sub>2</sub>-eq. Slovenia is one of eight EU Member States that exceed the cap of 3.5% from emissions of the base year (1986).

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.

Slovenia has a National Adaptation Strategy in place, developed through its Strategic Framework for Climate Change Adaptation, since 2016. The framework provides a long-term vision and strategic guidelines for adaptation-related activities. Slovenia is currently in the process of developing a National Action Plan (NAP) based on a comprehensive national Climate Change Vulnerability Assessment. Sectors that have devoted most attention to climate change adaptation action are water management (and associated risks of flood and drought), agriculture and forestry. No monitoring and reporting framework is operational to date.

### 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

Slovenia adopted its first national biodiversity strategy and action plan in 2001<sup>41</sup>. They expired in 2011 and an analysis conducted in 2012 concluded that they had not been fully implemented. The Ministry of the Environment started working on a new strategy in 2014 but instead decided to include national biodiversity policy measures into the new national nature conservation programme to harmonise the adoption with a global cycle. It is still being prepared as a part of the national environmental protection programme.

#### Setting up a coherent network of Natura 2000 sites

As of early 2018, Slovenia has designated 355 Natura 2000 sites. They include 324 sites of Community importance (SCI) under the Habitats Directive and 31 special protection areas (SPA) under the Birds Directive. Together, these sites cover 37.9 % of the land area, the largest proportion of land area coverage in the EU (EU average 18.1 %) and 10.6 km<sup>2</sup> of marine waters<sup>42</sup>.

In relation to the selection of marine SPAs, following the Arbitrary Agreement with Croatia, Slovenia changed its sea borders and withdrew from the exclusive economic zone. This development reduces a potential need for the designation of a new marine Natura 2000 site.

Slovenia needs to cooperate with neighbouring countries to ensure coherent species conservation measures.

#### Designating Natura 2000 sites and setting conservation objectives and measures

All special areas of conservation were designated on time. Their conservation objectives and measures are outlined in the comprehensive 2015-2020 Natura 2000 management programme<sup>43</sup>. However, there are still

concerns about carrying-out all conservation measures effectively on the ground and enforcing implementation through sanctions and inspections. These concerns also apply to SPAs and there have been complaints recently on the implementation of the nature directives. The complaints concern failures to adapt agricultural activities on several sites, which did not allow to meet the sites' conservation objectives.

In 2017, the Slovenian Court of Auditors published an audit report on the management of Natura 2000 sites in 2015-2016<sup>44</sup>. The report focused on the effectiveness of the management by the government, the Ministry of the Environment and Spatial Planning and the Nature Protection Institute. The report concluded that the management of Natura 2000 sites was partly effective but that it could be improved.



The court noted that the authorities had managed to integrate conservation measures into most of the selected sectors. However, it said that the integration efforts could be improved, especially for agriculture. The court also concluded that the monitoring of the implementation and adaptation of conservation measures was ineffective.

The awareness among some stakeholder groups and sectors about the EU nature legislation and the Natura 2000 benefits has potential to improve. More aware stakeholders and sectors could in turn better support the nature objectives and the biodiversity targets.

A bilateral meeting on nature took place in March 2018 between the authorities and stakeholders in all economic sectors as planned in the nature, people and economy action plan. The main implementation challenges were discussed and a number of conclusions and actions were agreed which are to be followed up in 2019.

<sup>41</sup> Ministry of the Environment and Spatial Planning, [Biodiversity Conservation Strategy of Slovenia](#), 2001.

<sup>42</sup> European Environmental Agency, [Natura 2000 Barometer](#), 2018.

<sup>43</sup> Government of the Republic of Slovenia, [Natura 2000 management programme \(2015-2020\)](#), 2015.

<sup>44</sup> Slovenian Court of Auditors, [Audit report on the management of Natura 2000 sites in the period 2015-2016](#), 2017.

Considering that most of Slovenia's habitats and species covered by the Habitats Directive have an unfavourable conservation status (for details please refer to the 2017 EIR), it is extremely important to fully implement the conservation measures in all Natura 2000 sites. It is equally important to follow up on the conclusions of the bilateral meeting mentioned above and on the programme's midterm review.

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

As Member States report only every 6 years on the progress made under both directives, no new information is available on the state of natural habitats and species or on the progress made in improving the conservation status of species and habitats in Slovenia since the 2017 EIR. The next report under Article 17 of the Habitats Directive and Article 12 of the Birds Directive will be available in 2019.

### 2019 priority actions

- Adopt concrete measures to enable the full implementation of the Natura 2000 management programme by 2020. Ensure adequate follow up of the midterm implementation report due in 2018 and the 2017 Court of Auditors report on Natura 2000. Address the weaknesses identified in the implementation of conservation measures together with relevant sectors and stakeholders.
- Implement fully conservation measures in all Natura 2000 sites, with special attention to adapting agricultural practices within the sites where conservation status of habitats and/or species are experiencing a decline due to agricultural activities.
- Develop and promote smart and streamlined implementation approaches, in particular as regards site appropriate assessment procedures and species permitting procedures, ensuring the necessary knowledge and data availability and strengthen communication with stakeholders.
- Build capacity of the competent authorities (central, regional, site management bodies) for the management of Natura 2000 sites and implementation of nature directives. Improve the quality and availability of data on the conservation status of habitats and species.

### 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 Slovenia<sup>45</sup> and a country page on the Biodiversity Information System for Europe (BISE)<sup>46</sup>. This information will also contribute to the final evaluation of the EU Biodiversity Strategy to 2020.

Slovenia's 2030 development strategy<sup>47</sup>, adopted in December 2017, provides a framework to achieve a high quality of life for all. The 2004 spatial development strategy<sup>48</sup> emphasises the ecological, environmental, social and structural purposes of green and open spaces. It requires cities to prepare 'green systems' that include elements of green infrastructure. City municipalities adopted 'sustainable urban development strategies' in 2015 and implementation plans in the spring of 2017, both of which include measures for the use of green infrastructure. A 2050 spatial development strategy is being prepared, which includes a strategic national green infrastructure network of multifunctional spatial and landscape elements. It also includes guidelines for integrating green infrastructure into regional and local spatial plans.

Considering the Natura 2000 coverage in Slovenia, there is no doubt it forms the backbone of the green infrastructure. It has to be upgraded to improve ecological connectivity among Natura 2000 sites and to provide green infrastructure in urban areas outside Natura 2000 sites.

Ljubljana has become well known for its green infrastructure and was recognised as the European Green Capital in 2016. It has developed a green network, which prevents floods and provides multiple socio-cultural and ecological benefits.

Green infrastructure has been integrated into various sectors in Slovenia. Agri-environment-climate payments

<sup>45</sup> 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](#).

<sup>46</sup> [Biodiversity Information System for Europe](#).

<sup>47</sup> Government of the Republic of Slovenia, Slovenia's Development Strategy until 2030, 2017.

<sup>48</sup> Ministry of the Environment, Spatial Planning and Energy, [Spatial Development Strategy of Slovenia](#), 2004.

and measures to support grassland habitats and species are the main tools to promoting green infrastructure on agricultural land<sup>49</sup>.

The 2015-2021 river basin management plans encourage the use of non-structural measures to reduce floods. They set conservation objectives such as ensuring the continuity of watercourses and maintaining or restoring riparian habitats (i.e. the zone between land and a river or stream)<sup>50</sup>. A management plan was adopted<sup>51</sup> to implement the Marine Framework Directive in 2017. This will include measures to protect sea floor integrity and safeguard the structure and functions of marine ecosystems among other measures to achieve good environmental status.

### The Sečovlje Salina – coastal green infrastructure

One example of coastal green infrastructure is the Sečovlje Salina, a coastal estuary in which evaporation basins for sea salt have existed for more than 700 years. Habitats and species have evolved to depend on this environment. It is both a Natura 2000 site and a nationally designated protected area according to the Nature Conservation Act. A private company, called Soline, was outsourced to manage the area and combine salt production with tourism, recreational and education activities while preserving the unique protected saline habitats and vegetation<sup>52</sup>. Local authorities have started to restore other coastal wetlands and to develop cross-border blue-green corridors<sup>53</sup> in the Adriatic-Ionian region<sup>54</sup> with the help of stakeholders.

Tourism is a big industry in Slovenia and the country is marketed as providing 'green, active and healthy' experiences<sup>55</sup>. Green tourism and sustainable development are at the core of Slovenia's 2017-2021 sustainable growth tourism strategy<sup>56</sup>. Conservation action and visitor management go hand-in-hand to minimise the negative environmental impact of tourism. There are also further opportunities for green infrastructure investment.

There are a number of potential sources of financing for green infrastructure, including EU funds (such as territorial cooperation, cohesion policy, agri-

environmental measures and LIFE funds). For example, ERDF funds are used for Natura 2000 projects, prioritising restoration and improvement activities identified in Natura 2000 2015-2020 management programme, to improve conservation status of target species and habitats.<sup>57</sup> However, there is a lack of financing for sustainable tourism infrastructure and green bridges e.g. along highways. Older roads, train tracks, and hydro-power plants do not incorporate green infrastructure elements. More financing is needed for research, studies and data management on green infrastructure and ecosystem services<sup>58</sup>.

### Estimating natural capital

The EU biodiversity strategy calls on Member States to map and assess the state of ecosystems and their services<sup>59</sup> 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.

Slovenia carried out several ecosystem services assessments — mainly at local level. The government is currently collecting projects and research on ecosystem services to prepare a database of case studies.

The Interreg project 'Alpine Space: Alpine ecosystem services — mapping, maintenance and management' (AlpES) runs from December 2015 to December 2019. It aims to introduce a framework for regional/transnational ecosystem services and help specific target groups to understand, value and manage them. The project will assess eight ecosystem services and will develop and test indicators in pilot regions. This process will provide basic guidelines for national assessments.

The results of Slovenia's national assessment will feed into its first map of ecosystem services. Activities on non-forested habitat types will continue (70 % of the first cycle is complete) and land-use data of forested and agricultural areas will continue to be updated every 4 years.

At the Mapping and Assessment of Ecosystems and their Services (MAES) working group meeting in September 2018, Slovenia was shown to have made some progress since January 2016 in implementing MAES (Figure 10).

<sup>49</sup> Trinomics et al., 2016.

<sup>50</sup> Government of the Republic of Slovenia, [Natura 2000 management programme \(2015-2020\)](#), 2015.

<sup>51</sup> Decree on the marine environment management plan (OJ RS, No. 41/17).

<sup>52</sup> Trinomics et al., 2016.

<sup>53</sup> Green infrastructure which combines green spaces with aquatic ecosystems and other physical features in terrestrial (including coastal) and marine areas.

<sup>54</sup> EUSAIR, [Towards the Green Coast](#).

<sup>55</sup> [Green scheme of Slovenian tourism](#).

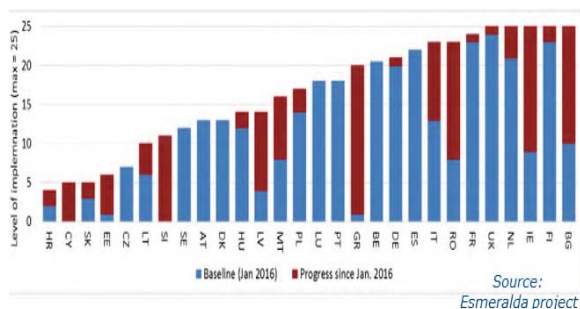
<sup>56</sup> Ministry of Economic Development and Technology, [Strategy for the Sustainable Growth of Slovenian Tourism for 2017-2021](#).

<sup>57</sup> Ministry of the Environment and Spatial Planning, [KOHEZIJSKA POLITIKA 2014 - 2020 NA PODROČJU OKOLJA IN PROSTORA](#).

<sup>58</sup> Trinomics, ALTERRA, Arcadis, Risk & Policy Analysis, STELLA Consulting, and Regional Environmental Centre (2016) 'Green Infrastructure in Slovenia', in [Supporting the Implementation of Green Infrastructure, Final Report to the European Commission under Service Contract ENV.B.2/SER/2014/0012, Annex I](#).

<sup>59</sup> Ecosystem services are benefits provided by nature such as food, clean water and pollination on which human society depends.

Figure 10: Implementation of MAES (September 2018)<sup>60</sup>



This assessment was made by the ESMERALDA project and based on 27 implementation questions. The assessment is updated every 6 months.

Business and biodiversity platforms, networks and communities of practice are key tools for promoting and facilitating natural capital assessments among business and financial service providers, for instance via the Natural Capital Coalition’s protocol<sup>61</sup>. The assessments contribute to the EU biodiversity strategy by helping private businesses to better understand and value both their impact and dependence on nature. Biodiversity platforms have been established at EU level<sup>62</sup> and in a number of Member States. Slovenia has not yet established such a platform.

### 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.

The report on the baseline distribution of invasive alien species<sup>63</sup> (Figure 11), for which Slovenia reviewed its country and grid-level data, shows that eight of the 37 species on the first EU list have already been observed in Slovenia. Seven of these species are established in the country, but none of them seem to be very widely distributed. The stone moroko (*Pseudorasbora parva*) and sliders (*Trachemys scripta*) seem to be the most widely spread invasive alien species (IAS) of EU concern.

<sup>60</sup> Esmeralda Project.

<sup>61</sup> Natural Capital Coalition, [Natural Capital Protocol](#).

<sup>62</sup> 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.

<sup>63</sup> 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.

Figure 11: Number of IAS of EU concern, based on available georeferenced information for Slovenia<sup>64</sup>



Between the entry into force of the EU list and 23 January 2019, Slovenia has not notified two new appearances of IAS of EU concern to the Commission (Article 16(2) of the IAS Regulation).

As, according to the baseline distribution, coypu (*Myocastor coypu*) still seems in an early invasion stage, Slovenia is advised to try to eradicate this species to help avoid considerable long-term management costs.

Slovenia has notified the Commission of its competent authorities responsible for implementing the IAS Regulation in accordance with its Article 24(2). It has also informed the Commission of the national provisions on penalties applicable to infringements (Article 30(4)).

### 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.

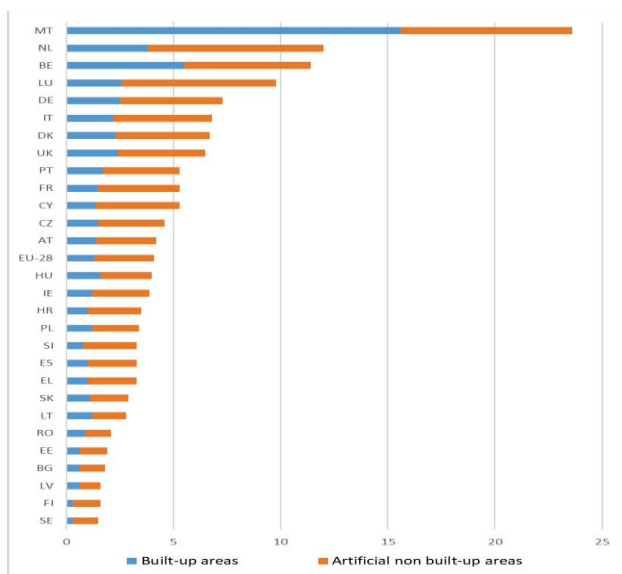
The percentage of artificial land<sup>65</sup> (Figure 12) shows the relative pressure on nature and biodiversity and the environmental pressure on people living in urbanised areas. A similar measure is population density.

<sup>64</sup> 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.

<sup>65</sup> 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).



Figure 12: Proportion of artificial land cover, 2015<sup>66</sup>



Slovenia is below the EU average for artificial land coverage (3.3 % vs 4.1 %). The population density is 102.5/km<sup>2</sup>, which is also below the EU average of 118<sup>67</sup>.

Contamination can severely reduce soil quality and threaten human health or the environment. A recent report of the European Commission<sup>68</sup> 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. Slovenia has registered 378 sites where potentially polluting activities have taken or are taking place.

Soil erosion by water is a natural process, but this natural process can be aggravated by climate change and human activities such as inappropriate agricultural practices, deforestation, forest fires or construction works. High levels of soil erosion can reduce productivity in agriculture and can have negative and transboundary impacts on biodiversity and ecosystem services. High levels of soil erosion can also have negative and transboundary effects on rivers and lakes (due to increased sediment volumes and transport of contaminants). According to the RUSLE2015 model<sup>69</sup>, Slovenia has an average soil loss rate by water of 7.43 tonnes per hectare per year (t ha<sup>-a</sup> yr<sup>-y</sup>) compared to the EU mean of 2.46 t ha<sup>-a</sup> yr<sup>-y</sup>. This indicates that soil

erosion is high on average. Note that these figures are the output of an EU level model and can therefore not be considered as locally measured values. The actual rate of soil loss can vary strongly within a Member State depending on local conditions.

Soil organic matter plays an important role in the carbon cycle and in climate change. Slovenia has an average concentration of soil organic carbon of 58.9 g/kg (across all land cover types) compared to the EU mean of 47 g/kg.

## 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)<sup>70</sup> 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 Slovenia, the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) plays an important role in achieving the Directive's goal.

Member States were required to set up their programme of measures and report to the Commission on it by 31 March 2016. The Commission could not assess whether Slovenia's measures were appropriate to reach a good environmental status<sup>71</sup> given that the country had reported its measures too late to be included in the Commission's assessment<sup>72</sup>.

### 2019 priority action

- Ensure reporting of the updates to the different steps of the marine strategy on time, in accordance with the deadlines set in the Marine Strategy Framework Directive.

<sup>66</sup> Eurostat, [Land covered by artificial surfaces by NUTS 2 regions](#).

<sup>67</sup> Eurostat, [Population density by NUTS 3 region](#).

<sup>68</sup> 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".

<sup>69</sup> 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.

<sup>70</sup> [Directive 2008/56/EC](#).

<sup>71</sup> Report from the Commission to the European Parliament and the Council assessing Member States' monitoring programmes under the Marine Strategy Framework Directive, COM/2017/03 final.

<sup>72</sup> Slovenia reported its programme of measures to the Commission on 16 August 2017 whereas the due date was 31 March 2016.

### 3. Ensuring citizens' health and quality of life

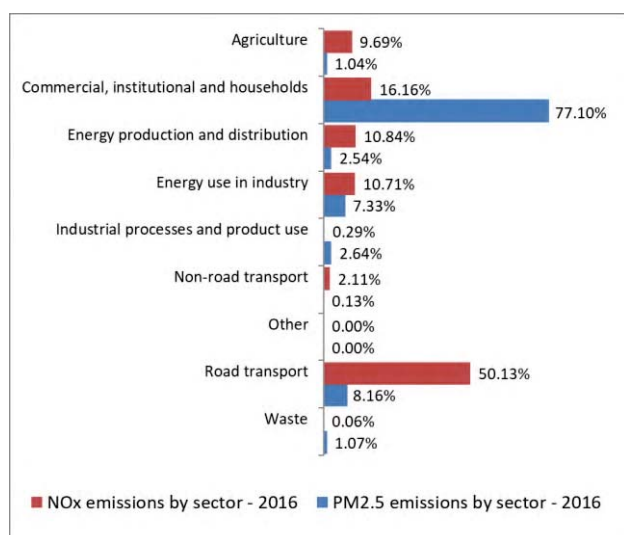
#### Air quality

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

The EU has developed a comprehensive body of air quality legislation<sup>73</sup>, which establishes health-based standards and objectives for a number of air pollutants.

Emissions of several air pollutants have decreased significantly in Slovenia<sup>74</sup>. The emission reductions between 1990 and 2014, mentioned in the 2017 EIR, continued. Between 2014 and 2016, emissions of sulphur oxides (SO<sub>x</sub>) fell by 49.9 % and emissions of nitrogen oxides (NO<sub>x</sub>) fell by 7.92 %. Meanwhile, emissions of volatile organic compounds (NMVOCs) increased by 2.17 %, emissions of ammonia (NH<sub>3</sub>) increased by 4.01 % and emissions of fine particulate matter (PM<sub>2.5</sub>) increased by 3.92 % (see Figure 13 for the total PM<sub>2.5</sub> and NO<sub>x</sub> emissions per sector).

**Figure 13: PM<sub>2.5</sub> and NO<sub>x</sub> emissions by sector in Slovenia<sup>75</sup>**



<sup>73</sup> European Commission, [Air Quality Standards](#), 2016.

<sup>74</sup> See [EIONET Central Data Repository](#) and [Air pollutant emissions data viewer \(NEC Directive\)](#)

<sup>75</sup> 2016 NECD data submitted by Member State to the EEA.

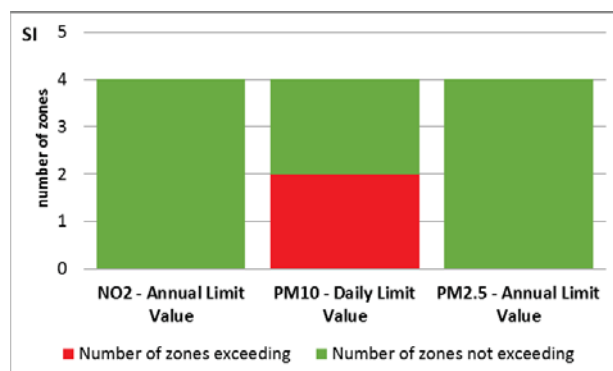
Despite these reductions in emissions, the country needs to make additional efforts to meet its emission reduction commitments (compared with 2005 emission levels) set out by the new National Emissions Ceilings Directive<sup>76</sup> for the years 2020 to 2029 and from 2030 onwards.

Air quality in Slovenia continues to give cause for concern. For 2015, the European Environment Agency<sup>77</sup> estimated that about 1 800 premature deaths were attributable to fine particulate matter<sup>78</sup> concentrations, 100 to ozone<sup>79</sup> concentrations and 160 to nitrogen dioxide<sup>80</sup> concentrations.

For 2017<sup>81</sup>, exceedances were registered for concentrations of particulate matter (PM<sub>10</sub>) in 2 out of 4 air quality zones (Celje and Ljubljana). In addition, Slovenia reported exceedances above target values for ozone concentrations.

See Figure 14 for the number of air quality zones exceeding NO<sub>2</sub>, PM<sub>2.5</sub>, and PM<sub>10</sub> levels.

**Figure 14: Air quality zones exceeding EU air quality standards in 2017<sup>82</sup>**



The persistent breaches of air quality standards (for PM<sub>10</sub>), which have severe negative effects on health and the environment, are being followed up by the European Commission through infringement procedures in all Member States concerned, including Slovenia. The aim is

<sup>76</sup> [Directive 2016/2284/EU](#).

<sup>77</sup> EEA, [Air Quality in Europe – 2018 Report](#), p. 64. Please see details in this report as regards the underpinning methodology.

<sup>78</sup> Particulate matter (PM) is a mixture of aerosol particles (solid and liquid) covering a wide range of sizes and chemical compositions. PM<sub>10</sub> (PM<sub>2.5</sub>) refers to particles with a diameter of 10 (2.5) micrometres or less. PM is emitted from many anthropogenic sources, including combustion.

<sup>79</sup> Low-level ozone is produced by photochemical action.

<sup>80</sup> NO<sub>x</sub> is emitted during fuel combustion e.g. from industrial facilities and the road transport sector. NO<sub>x</sub> is a group of gases comprising nitrogen monoxide (NO) and nitrogen dioxide (NO<sub>2</sub>).

<sup>81</sup> EEA, [EIONET Central Data Repository](#).

<sup>82</sup> [EEA, EIONET Central Data Repository](#). Data reflects the reporting situation as of 26 November 2018.

to ensure that adequate measures are put in place to bring all zones into compliance.

### 2019 priority actions

- Take action, under the National Air Pollution Control Programme (NAPCP), to reduce the main emission sources.
- Accelerate the reduction in particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>) emissions and concentrations. This will require, for example, further reducing emissions from energy production and heat generation using solid fuels, or increasing efficient and clean district heating.
- Upgrade and improve the air quality monitoring network, and ensure timely reporting of adequate data.

### Industrial emissions

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

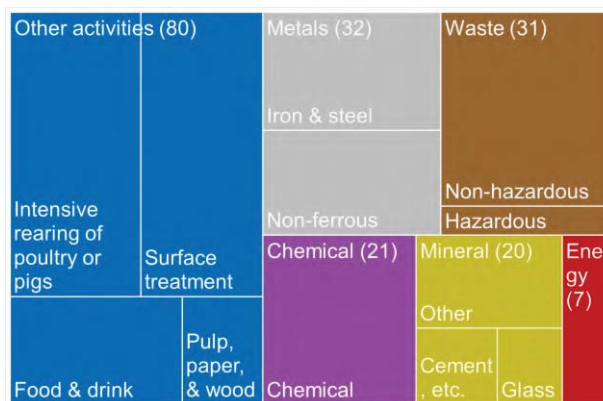
- (i) protect air, water and soil;
- (ii) prevent and manage waste;
- (iii) improve energy and resource efficiency; and
- (iv) clean up contaminated sites.

To achieve this, the EU takes an integrated approach to the prevention and control of routine and accidental industrial emissions. The cornerstone of the policy is the Industrial Emissions Directive<sup>83</sup> (IED).

The below overview of industrial activities regulated by the Industrial Emissions Directive (IED) is based on the ‘industrial emissions policy country profiles’ project<sup>84</sup>.

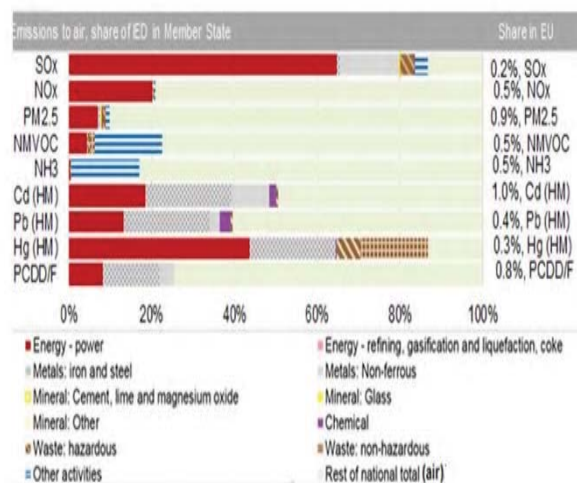
In Slovenia, around 190 industrial installations must have a permit according to the IED<sup>85</sup>. In 2015, the industrial sectors in Slovenia with the most IED installations (see Figure 15) were the intensive rearing of poultry or pigs (16 %), non-hazardous waste management (14 %) and surface treatment using an electrolytic or chemical process (12 %).

**Figure 15: Number of IED industrial installations by sector, Slovenia (2015)<sup>86</sup>**



The sectors identified as contributing the most emissions to air in Slovenia are: (i) energy-power for sulphur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM<sub>2.5</sub>) and mercury (Hg); (ii) ‘other activities’ (mainly the intensive rearing of poultry and pigs, surface treatment and pulp, paper and wood products) for non-methane volatile organic compounds (NMVOC) and ammonia (NH<sub>3</sub>); (iii) iron and steel for most of the reported heavy metals (HM) (e.g. Cd, Pb, Hg); and (iv) non-ferrous metal production for sulphur oxides (SO<sub>x</sub>), and cadmium (Cd). The breakdown is shown in Figure 16.

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



On water emissions, the chemicals sector contributes most to copper (Cu) emissions, the iron and steel sector contributes most to nickel (Ni) emissions and ‘other activities’ (mainly the intensive rearing of poultry and pigs and surface treatment of metals and plastics) contribute most to total organic carbon and zinc (Zn)

<sup>83</sup> 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).

<sup>84</sup> European Commission, [Industrial emissions policy country profile – Slovenia](#).

<sup>85</sup> This overview of industrial activities regulated by IED is based on the project on Industrial Emissions policy Country profiles: Ricardo Energy and Environment, [Industrial emissions country profile Slovenia](#), 2018.

<sup>86</sup> European Commission, [Industrial emissions policy country profile – Slovenia](#).

emissions. No data have been reported for the waste management, energy-power and mineral industry sectors.

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

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

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

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

### 2019 priority actions

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

### Noise

The Environmental Noise Directive<sup>87</sup> provides for a common approach to avoiding, preventing and reducing the harmful effects of exposure to environmental noise.

Excessive noise from aircraft, railways and roads is one of the main causes of environmental health-related issues in the EU<sup>88</sup>. Based on a limited set of data<sup>89</sup>, environmental noise causes at least 50 premature deaths per year in Slovenia and is responsible for around 150 hospital admissions. Noise also disturbs the sleep of roughly 60 000 people in Slovenia. The Environmental Noise Directive is being implemented. The noise mapping

for the previous reporting round (reference year 2011) is complete as are the action plans (reference year 2013).

These instruments, adopted after public consultations, should include the measures to keep noise low or reduce it.

### Water quality and management

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

The existing EU water legislation<sup>90</sup> 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

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

The most significant pressures on surface water is an unknown anthropogenic pressure (affecting 99% of surface water bodies), followed by urban wastewater (73%) and physical alterations (59%). For groundwater bodies, the most significant pressure is diffuse pollution from agriculture (14%).

Chemical pollution was the most significant impact on all surface water categories (affecting 99% of surface water bodies), followed by organic pollution (73%) and nutrient

<sup>87</sup> [Directive 2002/49/EC](#).

<sup>88</sup> WHO/JRC, 2011, Burden of disease from environmental noise, Fritschi, L., Brown, A.L., Kim, R., Schwela, D., Kephelopoulou, S. (eds), [World Health Organisation, Regional Office for Europe](#), Copenhagen, Denmark.

<sup>89</sup> European Environment Agency, [Noise Fact Sheets 2017](#).

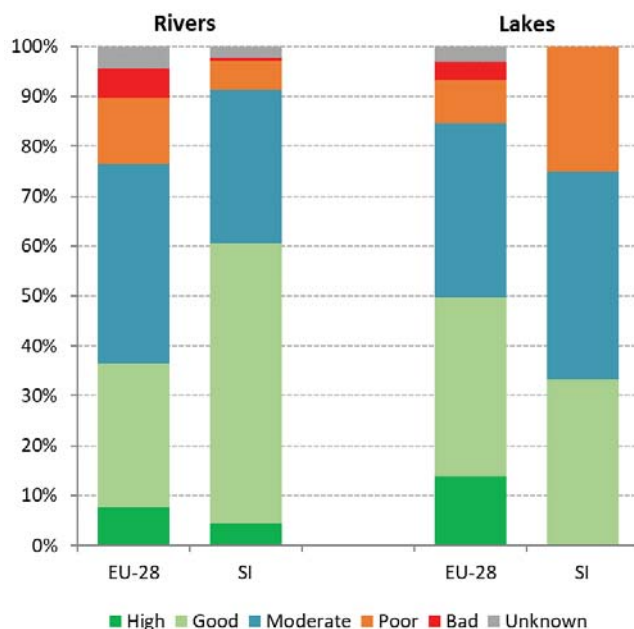
<sup>90</sup> This includes the [Bathing Waters Directive \(2006/7/EC\)](#), the [Urban Waste Water Treatment Directive \(91/271/EEC\)](#) (on discharges of municipal and some industrial wastewaters), the [Drinking Water Directive \(98/83/EC\)](#) (on potable water quality), the [Water Framework Directive \(2000/60/EC\)](#) (on water resources management), the [Nitrates Directive \(91/676/EEC\)](#) and the [Floods Directive \(2007/60/EC\)](#).

pollution (72%). For groundwater, nutrient pollution (14%) was the most significant impact.

The confidence in the classification of the ecological status has improved significantly. The number of water bodies with unknown status/potential has decreased significantly.

The ecological status/potential is at least good for most natural lakes and rivers, and in all coastal waterbodies (see Figure 17). There was an increase in the proportion of water bodies of at least good status/potential from 52% to 58% between the first (2009-2015) and second River Basin Management Plans (2016-2021) while there was a decrease in the proportion with unknown status from 10% to 3%.

**Figure 17: Ecological status or potential of surface water bodies in Slovenia<sup>91</sup>**



There was a large decrease in the proportion of surface water bodies with good chemical status from 95% to 0.6% comparing the status described in the first and second River Basin Management Plans, resulting largely from differences in the methodology for status classification used in these two Plans. This is a general pattern and might be due to the presence of mercury in biota. There are relatively few lake and coastal water monitoring sites overall and only around half are being monitored for chemical status. Monitoring of Priority Substances has not been undertaken in all surface water bodies but an assessment of chemical status in all surface water bodies has been made by expert judgement or extrapolation. The confidence in the assessment of status

<sup>91</sup> EEA, [WISE dashboard](#).

is low in a very significant proportion of water bodies but significant progress has been made.

The monitoring situation of the quantitative status of groundwater bodies has improved as the number of sites monitored has increased. All groundwater bodies were in good quantitative status.

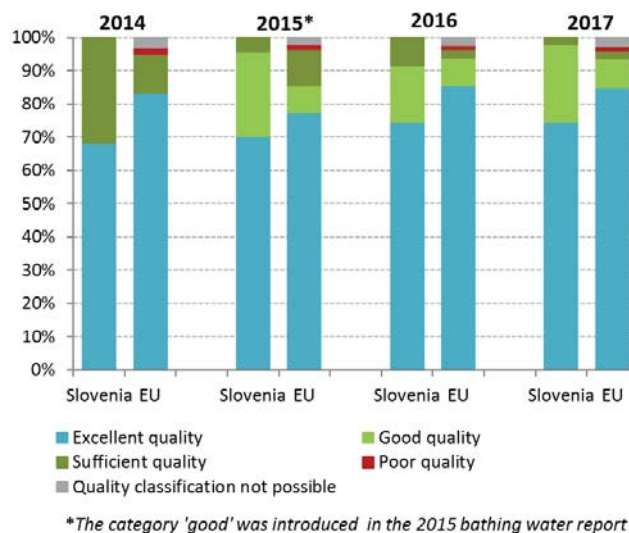
Most significant pressures are identified in the River Basin Management Plans and addressed by measures (Key type of measures) mapped against most of these in the Danube River Basin District (RBD) (fewer in the Adriatic RBD). Some measures have been completed since the first Programme of Measures but obstacles such as lack of finance and lack of measures in both RBD have occurred.

There is no new data on drinking water since the 2017 EIR, which found Slovenia's compliance with the Drinking Water Directive's microbiological and chemical parameters to be very high.

### Bathing Water Directive

Figure 18 shows that in 2017, out of Slovenia's 47 bathing waters, 74.5 % were of excellent quality, 23.4 % of good quality and 2.1 % of sufficient quality (74.5 %, 17 % and 8.5 % respectively in 2016)<sup>92</sup>. Detailed information on Slovenia's bathing waters is available on a national web portal<sup>93</sup> and on an interactive map viewer designed and hosted by the European Environment Agency<sup>94</sup>.

**Figure 18: Bathing water quality 2014–2017<sup>95</sup>**



<sup>92</sup> European Environment Agency, [European bathing water quality in 2016](#), 2017, p. 17.

<sup>93</sup> Ministry of the Environment and Spatial Planning, [Kopalne vode](#).

<sup>94</sup> EEA, [State of bathing waters](#).

<sup>95</sup> European Environment Agency, [European bathing water quality in 2017](#), 2018, p. 21.

### Urban Waste Water Treatment Directive

Slovenia has not met the deadline of 31 December 2015 for the implementation of the Urban Wastewater Treatment Directive<sup>96</sup>. The data for 2014 on Slovenia's compliance with its first and second transitional deadlines (2008 and 2010) showed that 15 agglomerations did not meet the requirements on collection and on secondary treatment. Slovenia has also had problems with the delineation of agglomerations and with individual systems such as septic tanks. The Commission is following-up on these instances of non-compliance.

An investment of around EUR 420 million<sup>97</sup> is needed to ensure that wastewater in the remaining agglomerations is properly collected and treated. The planned projects are only expected to be completed by 2021, which far exceeds the 2015 deadline set in Slovenia's Accession Treaty. Slovenia must therefore finalise the projects for the agglomerations that are in breach of the Directive as soon as possible.

### Nitrates Directive

Regarding nitrates, Slovenia's rivers have extremely low concentrations of nitrates. Nitrate levels in Slovenia's rivers are on average less than 10 mg/l. Although concentrations increased in 2012-2015 as compared with 2008-2011. Moreover, for the same periods, the proportion of groundwater monitoring stations with an average nitrates concentration above 50 mg/l increased from 7.7 % to 11.6 %. Slovenia applies its nitrates action programme throughout the country as the entire territory of Slovenia has been designated as a nitrate vulnerable zone.

### Floods Directive

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

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

The Commission's assessment found that good efforts were made with positive results in setting objectives and devising measures focusing on prevention, protection and preparedness. The assessment also showed that, as was the case for other Member States, Slovenia's Flood Risk Management Plans do not yet include a baseline to monitor the progress achieved in implementing the measures (and by extension of the objectives too). In addition, there is scope for reinforcing the aspect of

public participation and the active involvement of stakeholders in relation to the Flood Risk Management Plan.

### 2019 priority actions

- Continue to improve monitoring of surface waters by covering all relevant quality elements in all water categories, and should complete the development of assessment methods for all relevant biological quality elements in all water categories.
- Take steps in order to ensure the implementation of measures to address hydromorphological pressures, if necessary by reviewing permits/concessions and allocating the necessary resources.
- Complete necessary projects to ensure full compliance with Urban Wastewater Treatment Directive as soon as possible.
- Ensure effective implementation of measures to address nutrients pollution from agriculture, following 2015 legislative amendments.
- Take steps to reinforce the aspect of public participation and the active involvement of stakeholders in relation to 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 legislation<sup>98</sup> provides baseline protection for human health and the environment. It also ensures stability and predictability for businesses operating within the internal market.

In 2016, the European Chemicals Agency (ECHA) published a report on the operation of Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and the Classification, Labelling and Packaging (CLP) Regulation<sup>99</sup> that showed that enforcement activities are still evolving. Member States cooperate closely within the Forum for Exchange of Information on Enforcement<sup>100</sup>. This cooperation has shown that there is scope to increase the effectiveness of enforcement

<sup>96</sup> [COM\(2017\) 749](#) and SWD(2017) 445.

<sup>97</sup> [COM\(2017\) 749](#) and SWD(2017) 445.

<sup>98</sup> 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.

<sup>99</sup> European Chemicals Agency, [Report on the Operation of REACH and CLP 2016](#).

<sup>100</sup> ECHA, On the basis of the projects [REF-1](#), [REF-2](#) and [REF-3](#).

activities, particularly for registration obligations and safety data sheets where the level of non-compliance is still relatively high.

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

A 2015 Commission study already emphasised the importance of harmonised market surveillance and enforcement when implementing REACH at Member State level, deeming it to be a critical success factor in the operation of a harmonised single market<sup>101</sup>.

In March 2018, the Commission published an evaluation of REACH<sup>102</sup>. 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.

In Slovenia, the Chemicals Office of the Republic of Slovenia (CORS) — a constituent body within the Ministry of Health<sup>103</sup>, is responsible for enforcing REACH and the CLP Regulation.

### Making cities more sustainable

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

The population living in urban areas in Europe is projected to rise to just over 80% by 2050<sup>104</sup>. Urban areas pose particular challenges for the environment and human health, but they also provide opportunities for using resources more efficiently. The EU encourages municipalities to become greener through initiatives such

as the Green Capital Award<sup>105</sup>, the Green Leaf Award<sup>106</sup> and the Green City Tool<sup>107</sup>.

### Financing greener cities

Slovenia has assigned about EUR 122 million or 4 % of its cohesion policy allocation to sustainable urban development. This includes EUR 112 million or 7.9 % under the European Regional Development Fund (ERDF) and EUR 10 million or 1.1 % under the cohesion fund<sup>108</sup>.

Slovenia participates in the European Urban Development Network (UDN)<sup>109</sup>, which includes more than 500 cities across the EU responsible for carrying out integrated measures based on sustainable urban development strategies financed by ERDF in 2014-2020.

Of the UDN's initiatives, the ERDF supports urban innovative actions to test new and unproven solutions for urban challenges. The urban innovation actions have a total ERDF budget of EUR 372 million for 2014-2020. Slovenia has received funding for two urban innovation actions on the circular economy: the Applause project in Ljubljana and the Urban soil 4 food project in Maribor<sup>110</sup>.

### Participation in EU urban initiatives and networks

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

Ljubljana received the EU Green Capital Award in 2016<sup>111</sup> for having put in place a comprehensive set of policies to create a more sustainable city.

Five Slovenian municipalities are involved in 11 different thematic networks<sup>112</sup> under the URBACT<sup>113</sup> initiative to support sustainable urban development. Several of these networks, such as the Active Travel Network Results and the Urban Green Labs, also have an environmental angle. Maribor seems to be the most active Slovenian city in the URBACT initiative, participating in six networks.

Several Horizon 2020 network projects have also contributed to the sustainability of Slovenian cities. For example, the CIVITAS Prosperity project, described later in this section.

<sup>101</sup> European Commission, [Monitoring the Impacts of REACH on Innovation, Competitiveness and SMEs, Final Report](#), 2015.

<sup>102</sup> [COM\(2018\) 116](#).

<sup>103</sup> ECHA, [National Inspectorates – Slovenia](#).

<sup>104</sup> European Commission, Eurostat, [Urban Europe](#), 2016, p.9.

<sup>105</sup> European Commission, [European Green Capital](#).

<sup>106</sup> European Commission, [European Green Leaf Award](#).

<sup>107</sup> European Commission, [Green City Tool](#).

<sup>108</sup> [Partnership Agreement between Slovenia and the European Commission for the period 2014-2020](#), 2014, p. 200.

<sup>109</sup> European Commission, [The Urban Development Network](#).

<sup>110</sup> [Urban Innovative Actions \(UIA\) Initiative](#).

<sup>111</sup> European Commission, [Ljubljana becomes European Green Capital 2016](#).

<sup>112</sup> URBACT, [Associated Networks by country](#).

<sup>113</sup> URBACT programme is the European Territorial Cooperation programme aiming to foster sustainable integrated urban development in cities across Europe.



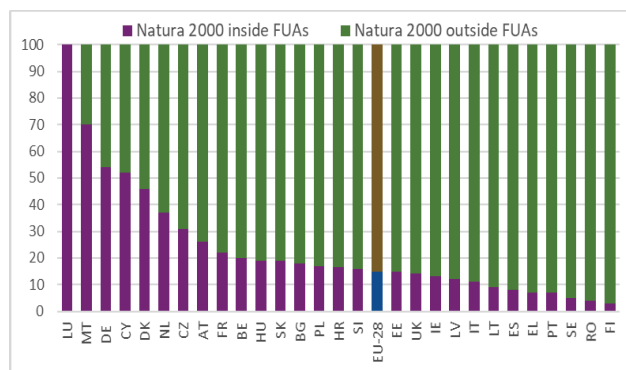
29 Slovenian cities are also actively involved in the EU Covenant of Mayors for Climate and Energy initiative as of June 2018.

Given that in 2017, 20.7 % of people living in Slovenian cities said that their neighbourhood was affected by pollution, grime or other environmental problems (the EU average was around 20 %) <sup>114</sup>, such efforts should be strongly encouraged.

#### Nature and cities

Around 18 % of Slovenia’s Natura 2000 network is in functional urban areas <sup>115</sup>, above the EU average of 15 % (see Figure 19).

**Figure 19: Proportion of Natura 2000 network in Functional Urban Areas (FUA) <sup>116</sup>**



Ljubljana took part in the 2013-2017 ‘Green Surge’ (Green Infrastructure and Urban Biodiversity for Sustainable Urban Development and the Green Economy) project. The project aimed to identify, develop and test ways of connecting green spaces, biodiversity, people and the green economy, to meet the major urban challenges related to climate change adaptation, demographic changes, human health and well-being <sup>117</sup>.

<sup>114</sup> Eurostat, [Pollution, grime or other environmental problems by degree of urbanisation](#).

<sup>115</sup> European Commission, [Definition of Functional Urban Areas](#).

<sup>116</sup> European Commission, [the 7<sup>th</sup> Report on Economic, Social and Territorial Cohesion](#), 2017, p. 121.

<sup>117</sup> European Commission, [GREEN SURGE](#).

#### Urban sprawl

Slovenia had a weighted urban proliferation rate, at 1.73 UPU/m<sup>2</sup> <sup>118</sup> in 2009 compared to a European average (EU-28+4) of 1.64 UPU/m<sup>2</sup>, having increased by 13 % from 2006 to 2009 <sup>119</sup>.

#### Traffic congestion and urban mobility

Traffic congestion is not among the main environmental issues affecting Slovenia. However, many subjects covered in this report are partly related to traffic congestion, especially air quality and noise.

Slovenia had 531 passenger cars per 1 000 inhabitants in 2016, slightly above the EU average of 505. This is an increase on 2014 when there were 518 passenger cars per 1 000 inhabitants <sup>120</sup>. Despite this increase, the amount of hours spent per year in traffic jams has not gone up. At 27.39 hours spent in traffic jams in 2014 and 26.95 hours in 2016, Slovenia is in line with the EU average on traffic congestion <sup>121</sup>.

Traffic congestion in Slovenia’s cities is generally low. Ljubljana is the only city with a somewhat high congestion level <sup>122</sup>. Compared with other European cities (EU cities plus Norwegian, Swiss and Russian cities), Ljubljana is the 202nd most congested city of the 215 cities on the list.

Passenger cars account for 86.3 % of inland passenger transport in Slovenia (EU-28 average 82.9 %). Buses and trolley buses account for around 11.8 % (EU average 9.4 %) of passenger transport and trains for only 2 % (EU average 7.7 %) <sup>123</sup>. This makes Slovenia the EU country with the fourth highest share of passenger car transport after Portugal, Lithuania and the United Kingdom. While, cars are the favourite mode of transport in Slovenia, 3.4 % above the EU average, rail transport is much less popular (5.7 % below the EU average) <sup>124</sup>.

66.7 % of freight transport is by road (EU average 76.4 %) and 33.3 % by railways (EU average 17.4 %) <sup>125</sup>. These figures indicate a high degree of environmental sustainability, especially the proportion of rail transport of freight, which is 15.9 % above the EU average.

However, aside from the freight transport figures, the country’s transport sector is characterised by high energy and carbon intensity

<sup>118</sup> Urban Permeation Units measure the size of the built-up area as well as its degree of dispersion throughout the region.

<sup>119</sup> EEA, [Urban Sprawl in Europe, Annex I](#), 2014, pp.4-5.

<sup>120</sup> Eurostat, [Passenger cars per 1 000 inhabitants](#), 2018.

<sup>121</sup> European Commission, [Hours spent in road congestion annually](#).

<sup>122</sup> TOMTOM, [TOMTOM Traffic Index](#).

<sup>123</sup> Eurostat, [Passenger transport Statistics by modal split](#).

<sup>124</sup> Eurostat, [Modal split of passenger transport](#).

<sup>125</sup> Eurostat, [Modal split of freight transport](#).



Slovenia is focusing on developing its car market. An estimated 1 % of cars in circulation will be electric cars by 2020 and this will rise to an estimated 16.9 % by 2030. Slovenia has good recharging facilities in place — one public recharging point for every 1.64 electric vehicles. The development of the electric car market is supported by currently applied or planned measures, such as tax exemptions and benefits and incentives to buy and use electric cars<sup>126</sup>.



There is no legal obligation for local authorities to implement sustainable urban mobility plans (SUMP) in Slovenia. However, the Ministry of Infrastructure, which is responsible for urban transport, has recognised the importance of SUMP and started to support SUMP actions at different levels. It has developed, among other measures, a national platform for sustainable mobility. In addition, Slovenia (Ljutomer) is taking part in the Horizon 2020 Prosperity project. This project aims to build cities' capacity to develop and implement SUMP that genuinely reflect the spirit of the EU SUMP guidelines, rather than simply creating additional paper work.

Slovenia is developing and testing innovative traffic management measures to reduce the energy and carbon intensity of transport. For instance, the Connecting Europe Facility co-finances the national initiative to set up a traffic management centre. This centre will help monitor and manage traffic and provide traffic-related information. Once in place, it should improve mobility, traffic safety, and reduce environmental harm<sup>127</sup>.

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<sup>126</sup> European Commission, [Transport in the European Union, Current Trends and Issues](#), 2018.

<sup>127</sup> INEA, [Traffic Management Integration in the National Traffic Management Centre 2](#).

## Part II: Enabling framework: implementation tools

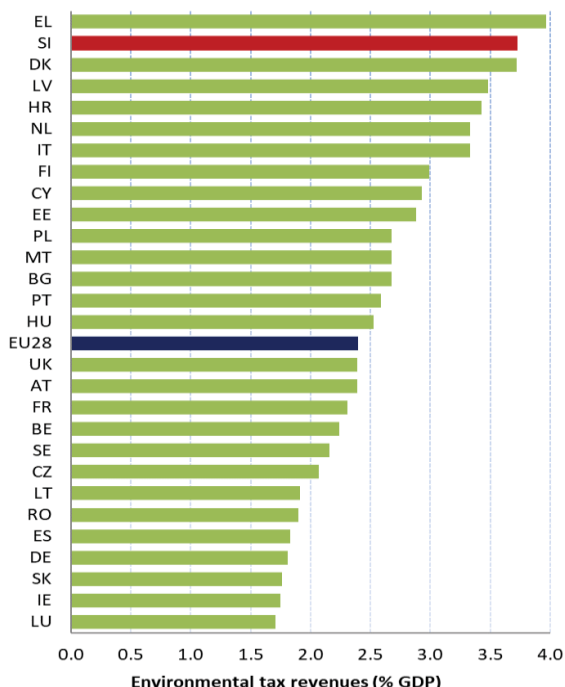
### 4. Green taxation, green public procurement, environmental funding and investments

#### 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.

Slovenia's revenue from environmentally relevant taxes remains above the EU average. Environmental taxes stood at 3.73 % of GDP in 2017 (EU-28 average: 2.4 %), as shown in Figure 20, and energy taxes at 3.16 % of GDP, against an EU average of 1.84 %. In the same year, the environmental tax came to 10.13 % of total revenues from taxes and social security contributions (much higher than the EU-28 average of 5.97 %).

Figure 20: Environmental tax revenues as % of GDP (2017)<sup>128</sup>



Slovenia has eight pollution and resources taxes in place. These taxes are on:

- CO<sub>2</sub> emissions;
- the use of lubricating oils and fluids;
- environmental pollution due to the generation of waste with end-of-life tires resulting from the use of a tires;
- environmental pollution due to the use of packaging and wrapped goods and consequently the generation of packaging waste;
- environmental pollution caused by the use of electrical and electronic equipment, including portable batteries and accumulators, and consequently the generation of electrical and electronic equipment waste;
- environmental pollution due to the use of volatile organic compounds;
- environmental pollution caused by waste water discharge; and
- environmental pollution from the landfilling of waste<sup>129</sup>.

#### Green public procurement

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

The purchasing power of public procurement amounts to around EUR 1.8 trillion in the EU (approximately 14% of GDP). A substantial proportion of this money goes to sectors with a high environmental impact such as construction or transport. Therefore, green public procurement (GPP) can help to significantly lower the negative impact of public spending on the environment and can help support sustainable innovative businesses. The Commission has proposed EU GPP criteria<sup>130</sup>.

Slovenia was one of the first EU countries to make GPP mandatory. The national GPP action plan's target was that 50 % of awarded contracts should incorporate green public procurement by 2012. Eight product

<sup>129</sup> Ministry of Finance, [Environmental taxes](#), 2018.

<sup>130</sup> 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.

<sup>128</sup> Eurostat, [Environmental tax revenues](#), 2017.

categories are included in the GPP target: paper, electricity, office equipment, furniture, transport, food and catering, construction, cleaning products and services.

A European Parliament study shows that Slovenia's previous national GPP action plan<sup>131</sup> was partly implemented. However, Slovenia currently has no national GPP action plan<sup>132</sup> in place, as the 2009 plan is no longer valid.

In January 2018, a new GPP decree came into force as part of the framework programme for the transition to a green economy. This decree extended the number of product and service categories for which GPP is mandatory to 20 (adding for example, road building, street lighting and textiles). It defined objectives for each product or service (for example 15 % of food should be organic, 50 % of office paper and hygienic paper products should come from sustainably managed forests and at least 50 % of electricity should come from renewable sources or high-efficiency cogeneration)<sup>133</sup>. However, the decree does not include any sanctions for non-compliance.

Guidelines have been developed for different product categories to help organisations procuring them implement GPP correctly. These guidelines are largely based on the EU GPP criteria.

Despite the GPP requirements, the uptake of GPP is still low. In 2015, the contracting authorities attributed 5 396 public contracts (or 9 305 lots) at an amount of almost EUR 1.6 billion. At least one environmental requirement was included in 1 528 lots, accounting for 16 % of all lots tendered in 2015. The value of these lots was EUR 276 million, representing 17 % of the total value of tenders<sup>134</sup>. There has been some improvement compared to 2013, when contracting authorities applied GPP requirements to only 11.7 % of contracts, or 8 % by value.

Slovenian authorities organise several conferences and workshops each year to help with the implementation of GPP as well as training activities for procurers. A helpdesk has also been set up and a related network of experts for certain products/services will soon be in place to cooperate with the helpdesk.

Slovenia stands out as one of the few Member States with mandatory GPP requirements. However, the actual uptake of GPP could be further improved.

### Environmental funding and investments

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

Achieving sustainability involves mobilising public and private financing sources<sup>135</sup>. Use of the European Structural and Investment Funds (ESIFs)<sup>136</sup> is essential if countries are to achieve their environmental goals and integrate these into other policy areas. Other instruments such as Horizon 2020, the LIFE programme<sup>137</sup> and the European Fund for Strategic Investments (EFSI)<sup>138</sup> may also support the implementation and spread of good practices.

#### European Structural and Investment Funds 2014-2020

Through its national Operational Programme, Slovenia has been allocated EUR 3.87 billion from ESIF funds for 2014-2020. This means that with its national contribution of EUR 1.02 billion, Slovenia has a total budget of EUR 4.9 billion to invest in the country within the ESIF framework<sup>139</sup>. Areas of investment include innovation and business competitiveness, support for SMEs, support for agriculture and fishery holdings, the low-carbon economy, transport, environment, sustainable employment, social inclusion, education and public administration.

#### Cohesion policy

Slovenia receives around over EUR 3 billion in cohesion policy funding for 2014-2020, including EUR 64 million for European Territorial Cooperation and EUR 718.8 million from the European Social Fund. The country has one Operational Programme covering two regions: the less developed region of Eastern Slovenia (Vzhodna Slovenija) and the more developed region of Western Slovenia (Zahodna Slovenija). In the current period, there is a clear shift from infrastructure-based support

<sup>131</sup> European Parliament, [Green Public Procurement and the Action Plan for the Circular Economy](#), 2017, pp. 79-80.

<sup>132</sup> GPP national action plan is referred to in the [2003 Communication](#). MS were encouraged to draw up a national action plan by 2006 and then update it every three years.

<sup>133</sup> Slovenian Government, [GPP Decree](#), 2018.

<sup>134</sup> Update on GPP development activities by members of GPP advisory group (October 2016).

<sup>135</sup> See, for example, [Action plan on financing sustainable growth \(COM\(2018\) 97\)](#).

<sup>136</sup> i.e. the European Regional Development Fund (ERDF), the Cohesion Fund (CF), the European Social Fund (ESF), the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF). The ERDF, the CF and the ESF are referred to as the 'cohesion policy funds'.

<sup>137</sup> European Commission, [LIFE programme](#).

<sup>138</sup> European Investment Bank, [European Fund for Strategic Investments, 2016](#).

<sup>139</sup> European Commission, [European Structural and Investment Funds \(Country factsheet Slovenia\)](#), 2016.

to more innovation and entrepreneurship-oriented investments<sup>140</sup>.

EU funds are a key asset for protecting the environment in EU Member States<sup>141</sup>.

Of Slovenia's cohesion policy budget, over EUR 570 million have been allocated to protecting the environment and using resources efficiently and sustainably. This amount includes recent additional re-allocations to this sector. It accounts for around 18.7 % of Slovenia's overall cohesion policy budget, above the EU average of around 11 %<sup>142</sup>.

Slovenia's key priority is its water sector. This has been allocated around EUR 300 million (EUR 161 million for urban wastewater treatment, EUR 125 million for drinking water and EUR 14 million for other water measures). The second highest allocation of EUR 90 million is for climate change adaptation, specifically for flood protection measures. EUR 47 million goes to efficient land use in urban areas (including funding for the renovation of buildings in degraded urban areas), followed by EUR 44 million to protect Natura 2000 areas and biodiversity. A further EUR 41 million has been allocated to protect, develop and promote cultural and natural heritage. Air quality measures receive EUR 39 million. Finally, EUR 8 million is to support environmentally-friendly production processes and resource efficiency in SMEs<sup>143</sup>.

The Ljubljana wastewater collection and treatment project is one of the biggest environmental projects supported by the cohesion policy. Thanks to this project, over 20 000 more of the city's inhabitants will be connected to the sewerage and wastewater treatment system and the level of treatment will improve. These results will help bring Slovenia closer to the requirements of the Urban Wastewater Treatment Directive<sup>144</sup>.

EU funds for 2007-2013 were entirely spent<sup>145</sup>.

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<sup>140</sup> [Open Data Portal for the ESIF](#).

<sup>141</sup> 'The objectives of the ESI Funds shall be pursued in line with the principle of sustainable development and with the Union's promotion of the aim of preserving, protecting and improving the quality of the environment, as set out in Article 11 and Article 191(1) TFEU, taking into account the polluter pays principle' Article 8, [Reg. \(EU\) No 1303/2013](#).

<sup>142</sup> European Commission, [Mainstreaming the environment in cohesion policy in 2014-2020: Report of the European Network of Environmental Authorities — Managing Authorities \(ENEA-MA\) working group](#), 2016.

<sup>143</sup> [Operational Programme for the Implementation of EU Cohesion Policy in the period 2014-2020 in Slovenia](#), 2018.

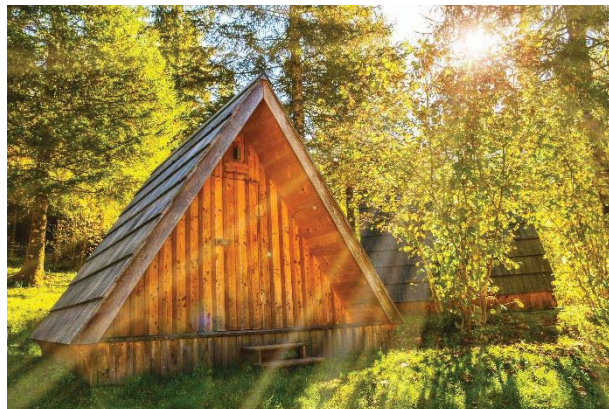
<sup>144</sup> COWI-MILIEU 2017 Study on the integration of environmental concerns in the Cohesion Policy funds (ERDF, ESF, CF), p. 246.

<sup>145</sup> European Commission, [Cohesion Policy — Supporting Growth and jobs in Slovenia \(2007-2013\)](#), 2016; and European Commission, [SF 2007-2013 Funds Absorption Rate](#), 2018.

### Rural development

Slovenia's Rural Development Programme (RDP) sets out the country priorities for using the EUR 1.1 billion available for 2014-2020. This funding includes EUR 838 million from the European Agricultural Fund for Rural Development (EAFRD)<sup>146</sup>.

The RDP has three priorities. The first is to restore, preserve and improving agriculture and forestry ecosystems (roughly one third of Slovenian farmland is covered by funded contracts to improve biodiversity and water and soil management). The second is to increase the competitiveness of the agri-sector and sustainable forestry (2.9 % of farms receive support for economic and environmental investments, including for greater resource efficiency). The third priority is to increase social inclusion and local development in rural areas — 66 % of the population should be covered by local development strategies. Nearly 420 jobs are expected to be created as a result of the programme.



One of the EAFRD-RDP projects entitled 'Let's clean the water', implemented within the LEADER<sup>147</sup> framework, targeted the population of two hill-top municipalities — Škofja Loka and Gorenja Vas. The project raised the awareness of the local population about the possibilities for and requirements of constructing small wastewater treatment plants for up to 50 p.e. in this challenging location and encouraged the construction of plants<sup>148</sup>.

On integrating environmental concerns into the common agricultural policy (CAP), the two key areas are: (i) to use the EAFRD to pay for environmental land management and other environmental measures; and (ii) to ensure that the first pillar of the CAP was

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<sup>146</sup> European Commission, [Factsheet on 2014-2020 Rural Development Programme for Slovenia](#).

<sup>147</sup> LEADER is a local development method which has been used for 20 years to engage local actors in the design and delivery of strategies, decision-making and resource allocation for the development of their rural areas. In the rural development context, LEADER is implemented under the national and regional RDPs.

<sup>148</sup> European Network for Rural Development, [Projects Brochure, The European Agricultural Fund for Rural Development, Resource Efficient Rural Economies](#), 2018.

implemented effectively for cross-compliance and first pillar 'greening'. The direct payment allocation for Slovenia for 2015-2020 is EUR 680 million. Of this, 30 % will go towards greening practices that benefit the environment<sup>149</sup>.

### European Maritime and Fisheries Fund

Slovenia receives around EUR 32.6 million in co-financing for fisheries and the maritime sector, including an EU contribution of EUR 24.8 million<sup>150</sup>.

This helps financing projects that benefit the environment in sustainable fisheries (Priority 1 of the Operational Programme) and sustainable aquaculture (Priority 2)<sup>151</sup>. Around 36 % or EUR 9 million<sup>152</sup> of the funding goes towards environmental projects.

### The Connecting Europe Facility

The Connecting Europe Facility (CEF) is a key EU funding instrument developed specifically to direct investment into European transport, energy and digital infrastructures. It aims to address identified missing links and bottlenecks and promote sustainability.

By the end of 2017, Slovenia had signed agreements for EUR 209 million for projects under the CEF<sup>153</sup>. For transport funding under the CEF, the rail sector received the biggest contribution (for the second 'Divča-Koper' track), followed by roads and maritime transport<sup>154</sup>.

For energy, the CEF finances a number of 'TEN-E' projects of common interest<sup>155</sup>. This includes a EUR 40 million CEF grant for a smart grids project that improves the links between Slovenia and Croatia's electricity grids and increases the use of renewable energy in the region<sup>156</sup>.

### Horizon 2020

Slovenia has benefited from Horizon 2020 funding since the programme started in 2014. As of January 2019, 302 beneficiaries received EUR 84.1 million for projects from the Societal Challenges work programmes dealing with environmental issues<sup>157 158</sup>.

In addition to the abovementioned work programmes, climate and biodiversity expenditure is present across the entire Horizon 2020. In Slovenia, projects accepted for funding in all Horizon 2020 working programmes until December 2018 included EUR 87 million destined to climate action (40.2 % of the total Horizon 2020 contribution to Slovenia) and EUR 7 million for biodiversity-related actions (3.3 % of the Horizon 2020 contribution to Slovenia)<sup>159</sup>.

### LIFE programme

Since its launch in 1992, the LIFE programme has co-financed 42 projects in Slovenia at a total investment of EUR 66 million, of which the EU provided EUR 36 million<sup>160</sup>.

Of the projects co-financed to date, 22 have focused on nature conservation, 10 on environmental innovation, four on information and communication and two on the former LIFE third countries strand. 22 projects received support from LIFE's nature and biodiversity strand. These projects mostly dealt with conservation, restoration and/or protection of habitats (e.g. freshwater wetlands or peat bogs) and species (e.g. Slovenian brown bears or nocturnal animals such as moths and bats). Some projects were to support administrative capacity and planning (e.g. preparing Slovenia's 2014-2020 Natura 2000 management programme)<sup>161</sup>.

In the period 2014 – 2017, the EU has allocated about EUR 21 million to 13 Slovenian projects (12 traditional and 1 capacity building project). Slovenia is doing well in terms of the LIFE programme support and it significantly exceeded its national allocation for this period<sup>162</sup>.

### European Investment Bank

In 2013-2017, European Investment Bank (EIB) financing in Slovenia totalled nearly EUR 1.6 billion. This support was mainly to provide credit lines for businesses and transport. No loans were given directly to environment-related projects, except for a limited amount of funding for energy efficiency and renewable energy<sup>163</sup>.

<sup>149</sup> [Regulation \(EU\) 1307/2013](#).

<sup>150</sup> European Commission, [European Maritime and Fisheries Fund, Slovenia, 2015](#).

<sup>151</sup> [Operativni Program ESPR, 2014](#).

<sup>152</sup> European Commission, [European Maritime and Fisheries Fund, Slovenia, 2015](#).

<sup>153</sup> European Commission, [European Semester Country Report for Slovenia, 2018](#), p. 14.

<sup>154</sup> European Commission, [Connecting Europe Facility — Transport grants 2014-2017, Slovenia, 2018](#).

<sup>155</sup> European Commission, [Projects of Common Interest](#).

<sup>156</sup> European Commission, <https://ec.europa.eu/inea/en/news-events/newsroom/%E2%82%AC40-million-cef-funding-to-connect-slovenian-and-croatian-electricity-grids>.

<sup>157</sup> 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.

<sup>158</sup> 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.

<sup>159</sup> European Commission [own calculations based on CORDA \(Common Research Data Warehouse\)](#).

<sup>160</sup> European Commission, [LIFE by country: Slovenia](#).

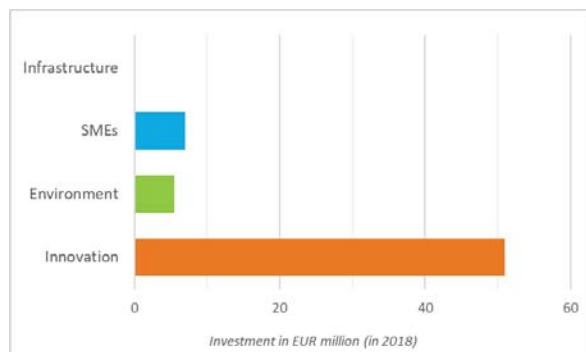
<sup>161</sup> European Commission, [LIFE in Slovenia, 2016](#).

<sup>162</sup> Commission services based on data provided by EASME.

<sup>163</sup> European Investment Bank, [Financed projects](#).

In 2018 alone, the EIB Group (the European Investment Bank and the European Investment Fund)<sup>164</sup> loaned Slovenian businesses and public institutions EUR 63.5 million, as shown in Figure 21. Of this, EUR 5.5 million (9 %) went to environmental projects.

**Figure 21: EIB loans to Slovenia in 2018<sup>165</sup>**



### European Fund for Strategic Investments

The European Fund for Strategic Investments (EFSI) helps bridge the current investment gap in the EU. As of January 2019, the EFSI had mobilised EUR 161 million in Slovenia. This is expected to trigger EUR 927 million in additional investment<sup>166</sup>.

Slovenia participates in two approved initiatives — one to support the transport sector and one to support SMEs. The SME project is expected to trigger EUR 620 million in secondary investments which will benefit 1 700 smaller companies or start-ups<sup>167</sup>.

### National environmental financing

Slovenia spent EUR 226.1 million on environmental protection in 2016, a decrease of 42 % from 2015<sup>168</sup>. Of these payments, 19 % were for waste management activities (the annual average percentage of environmental spending allocated to waste management in the EU is 49.7 %). EUR 83.1 million was for wastewater management (37 % of the total) and EUR 23.4 million was for reducing pollution (10 % of the total). 11 % of environmental expenditure was to protect biodiversity and the landscape (EUR 25.8 million). Between 2012 and 2016, the general government funding for environmental protection was EUR 1.5 billion<sup>169</sup>.

As it has been mentioned in the report, one of the challenges for Slovenia is to ensure that environmental financing remains at an adequate level. Existent

financial gaps in areas such as circular economy, water management, green infrastructure, biodiversity or air pollution 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

- Mobilise investment, including through EU funds, to promote sustainable water management, in particular the wastewater sector; support a circular economy; protect biodiversity and develop green infrastructure; and reduce air pollution.

<sup>164</sup> EIB, [Slovenia and the EIB](#), 2018.

<sup>165</sup> [EIB, Slovenia and the EIB](#), 2018.

<sup>166</sup> European Investment Bank, [EFSI project map](#).

<sup>167</sup> European Commission, [Investment Plan for Europe, Country Factsheet: Slovenia](#), 2018.

<sup>168</sup> Eurostat, [General Government Expenditure by function](#), 2018.

<sup>169</sup> Eurostat, [General Government Expenditure by function](#), 2018.

## 5. Strengthening environmental governance

### Information, public participation and access to justice

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

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

It is of crucial importance to public authorities, the public and business that environmental information is shared efficiently and effectively<sup>170</sup>. Public participation allows authorities to make decisions that take public concerns into account. Access to justice is a set of guarantees that allows citizens and NGOs to use national courts to protect the environment<sup>171</sup>. It includes the right to bring legal challenges ('legal standing')<sup>172</sup>.

#### Environmental information

In Slovenia, environmental data is centralised at government level. The Ministry of the Environment and Spatial Planning and Waters, its Executive Environmental Agency and its Water Agency each host a web portal with such information. The content is mostly about the state of the environment in the country and about environmental legislation, including some references to the specific EU legislation. These sites hold most of the legal information and reports. They also provide links to other relevant sites. All sites have some information available in English in addition to Slovenian, although the English content is substantially less than the Slovenian content.

Slovenia's implementation of the INSPIRE Directive leaves room for improvement. The accessibility of spatial data through 'view and download' services is poor. The review of the country's performance is based on its 2016 implementation report<sup>173</sup> and its most recent monitoring

<sup>170</sup> The Aarhus Convention, the Access to Environmental Information Directive, 2003/4/EC and the INSPIRE Directive, 2007/2 together create a legal foundation for the sharing of environmental information between public authorities and with the public. This EIR focuses on INSPIRE.

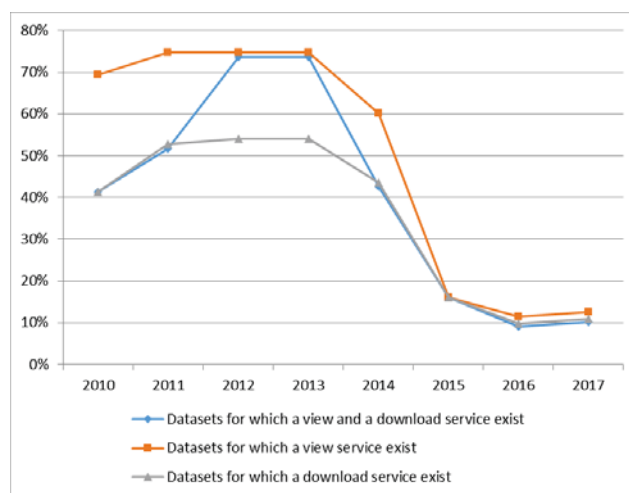
<sup>171</sup> The guarantees are explained in Commission Notice on access to justice in environmental matters, [OJL 275](#), 18.8.2017 and a related Citizen's Guide.

<sup>172</sup> 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.

<sup>173</sup> INSPIRE SI [country sheet](#) 2017.

data from 2017<sup>174</sup>. Slovenia has made good progress in data identification and documentation. However, it needs to make a greater effort to make the data accessible through services, to improve the conditions for data reuse and to prioritise environmental datasets in the implementation of environmental legislation. In particular, it needs to prioritise datasets identified as high-value spatial data sets<sup>175</sup>.

**Figure 22: Access to spatial data through view and download services in Slovenia (2017)**



#### Public participation

In Slovenia, public participation provisions for the environment are integrated in many laws and regulations<sup>176</sup>. These include, in particular, the Environment Protection Act with several decrees, the law that ratifies the Convention on environmental impact assessment in a transboundary context, the Aarhus Convention, the access to public information act, the act on general administrative procedures and other sectoral laws. The 2017 report on the implementation of the Aarhus Convention<sup>177</sup> notes that the applicable construction legislation (as opposed to environmental legislation) did not include the Aarhus Convention requirements when obtaining building permits. It further notes that there was not enough transparency in or public dialogue on building design decisions. However, the report acknowledges that there are plans to amend this legislation to bring it in line with the Convention.

<sup>174</sup> INSPIRE [monitoring dashboard](#).

<sup>175</sup> [List of high value spatial data sets](#).

<sup>176</sup> [Directive 2003/35/EC](#).

<sup>177</sup> UNECE, [2017 National implementation reports by Parties](#), page 26.

In 2008, the Ministry of Environment and Spatial Planning issued a special instruction that the public should participate in decision making on environmental regulations<sup>178</sup>. Consequently, draft regulations along with invitations to the public to participate in their preparation, are published on the Ministry of the Environment and Spatial Planning's website<sup>179</sup>. The website publishes the comments and opinions submitted by the general public as well as information on the government's position on draft regulations.

The Eurobarometer figures from 2017<sup>180</sup> show that people in Slovenia agree strongly (85 % of respondents) that an individual can play a role in protecting the environment. This is a slight decrease since 2014.

### Access to justice

Slovenia needs to make significant progress in informing the general public and environmental associations about how they can have access to justice in environmental matters under national and EU law. To this end, the public authorities should ensure that structured and user-friendly information is available on line.

A complainant in an administrative dispute is a person who is a party or an accessory participant in a procedure for issuing of an administrative act. The same applies to environmental NGOs with a special status as association acting in public interest in environmental protection.

The standing for individuals in Slovenia's administrative procedure is narrowly defined as follows: 'natural and legal persons whose rights, obligations or legal interests may be affected by the administrative decision'. This means that only these natural or legal persons can initiate the procedure and influence its course. The judicial review may be started by the same parties as those starting an administrative procedure. Environmental NGOs with the status to act in the public interest have a standing position in environmental matters based on the Environmental Protection Act, the Nature Conservation Act, the environmental impact assessment and integrated pollution prevention and control (IPPC) permit procedures.

Problems in implementing Article 9.3. of the Aarhus Convention arise because of the restrictive interpretation of a legal interest, which is a prerequisite for launching a procedure. Individuals and environmental NGOs complain particularly about their difficulty in gaining access to the constitutional court, which reviews the

extent to which general legal acts are constitutional and legal. On the interpretation of the legal interest, the constitutional court expressed its position in 2007 as follows: 'one has no legal interest if a regulation does not affect the status of the plaintiff directly'. In such cases, legal interest can be shown only when all other remedies have been used (Decision U-I-276/07). Therefore, contesting the non-constitutional nature of a regulation is the first step in a procedure against an individual decision. This also applies to a legal interest of environmental NGOs.

The costs of administrative court procedure are set out in the Administrative Fees Act and judicial fees are set out in the Court Fees Act. Fees are usually around EUR 100, but if the procedure before the court includes a claim for compensation, then the fees correlate to the amount of the requested compensation. The principle of 'loser pays' applies in judicial actions. In administrative procedures and for the administrative court, country and district courts and higher courts, legal representation is not mandatory. Before the Supreme Court legal representation by a lawyer is mandatory.

### 2019 priority actions

- Improve access to spatial data and services by making stronger linkages between the country INSPIRE portals, identify and document all spatial datasets required to implement environmental law, and make the data and documentation at least accessible 'as is' to other public authorities and the public through the digital services envisaged in the INSPIRE Directive.
- Improve the legal framework and/or the practical application access to information to facilitate public participation across the implementation of EU legislation with impact on the environment in line with the Aarhus Convention.

<sup>178</sup> Ministry of the Environment and Spatial Planning, [Navodilo o postopku sodelovanje javnosti pri sprejemanju predpisov](#).

<sup>179</sup> Ministry of the Environment and Spatial Planning, [Predpisi in Dokumenti v Pripravi - Okoljski Predpisi](#).

<sup>180</sup> European Commission, [Special 468 Eurobarometer](#), 'Attitudes of European citizens towards the environment', 2017.



## Compliance assurance

Environmental compliance assurance covers all the work undertaken by public authorities to ensure that industries, farmers and others fulfil their obligations to protect water, air and nature, and manage waste<sup>181</sup>. It includes support measures provided by the authorities, such as:

- (i) compliance promotion<sup>182</sup>;
- (ii) inspections and other checks that they carry out, i.e. compliance monitoring<sup>183</sup>; and
- (iii) the steps that they take to stop breaches, impose sanctions and require damage to be remedied, i.e. enforcement<sup>184</sup>.

Citizen science and complaints enable authorities to focus their efforts better. Environmental liability<sup>185</sup> ensures that the polluter pays to remedy any damage.

### Compliance promotion and monitoring

In Slovenia, there is no website providing information to businesses and farmers on how to comply with their environmental obligations. The provision and the quality of such information in Member States is an indicator of how actively authorities promote compliance in areas with serious implementation gaps.

Major industrial installations can present a serious pollution risk. Public authorities must have plans to inspect these installations and must make individual inspection reports available to the public<sup>186</sup>. In Slovenia, there is a specific website on the IED<sup>187</sup>, which is available to the general public and to operators of installations who are obliged by the IED to get an environmental permit. The website includes information on operators and environmental permits, reference documents, BAT conclusions and relevant notifications. Inspection reports are published on the Inspectorate of the Republic of Slovenia for Environment and Spatial Planning's website. The reports include major findings and conclusions on whether further action is necessary<sup>188</sup>. Inspections of industrial installations are based on risk assessment<sup>189</sup> using methodology developed by European Union Network for the Implementation and Enforcement of

Environmental Law (IMPEL) in whose activities Slovenia actively participates.

### Citizen science and complaint handling

Engaging the general public through citizen science can increase knowledge about the environment and help the authorities in their work. In Slovenia, there is no specific online information on citizens' engagement.

The availability of clear online information about how to make a complaint is an indicator of how responsive authorities are to complaints from the public. The Inspectorate of the Republic of Slovenia for Environment and Spatial Planning ('the Inspectorate') provides general information on its website<sup>190</sup> on how to submit complaints about environmental violations and about alleged maladministration by the competent authorities<sup>191</sup>. Such complaints can be submitted anonymously. The Inspectorate<sup>192</sup> publishes an annual report on the complaints received and their resolution, including any follow-up actions.

### Enforcement

When monitoring identifies problems, a range of responses may be appropriate. The Inspectorate's annual activity reports include proposed follow-up measures to detected instances of non-compliance in its area of responsibility<sup>193</sup>. However, there is no information available on the sanctions applied or on whether compliance has been reached after the follow-up measures and enforcement action have been taken. Information on responses to cross-compliance breaches on nitrates and nature is also not publicly available.

Tackling waste, wildlife crimes and other environmental offences is especially challenging. It requires close cooperation between inspectors, customs authorities, police and prosecutors. The Inspectorate's annual activity reports mention ongoing cooperation with other relevant authorities<sup>194</sup>. However, there is no publicly available information on cooperation and coordination mechanisms for tackling different types of environmental crime.

<sup>181</sup> The concept is explained in detail in COM(2018) 10 and SWD(2018) 10.

<sup>182</sup> This EIR focuses on the help given to farmers to comply with nature and nitrates legislation.

<sup>183</sup> This EIR focuses on inspections of major industrial installations.

<sup>184</sup> This EIR focuses on the availability of enforcement data and coordination between authorities to tackle environmental crime.

<sup>185</sup> Directive 2004/35/CE, creates the framework.

<sup>186</sup> Article 23, Directive 2010/75/EU.

<sup>187</sup> ARSO.

<sup>188</sup> Ministry of the Environment and Spatial Planning, IED Poročila.

<sup>189</sup> IRSOP, Work plan, March 2018, p. 41.

<sup>190</sup> Ministry of the Environment and Spatial Planning, [Delovna Področja](#).

<sup>191</sup> Ministry of the Environment and Spatial Planning, [Delovna Področja](#).

<sup>192</sup> Ministry of the Environment and Spatial Planning, [Poročilo o Delu za Leto 2016](#).

<sup>193</sup> Ministry of the Environment and Spatial Planning, [Poročila o Delu in Letni Načrti Dela](#).

<sup>194</sup> Ministry of the Environment and Spatial Planning, [Poročila o Delu in Letni Načrti Dela](#).

## 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 on establishing guidance. The Commission is still collecting evidence on the progress made.

## 2019 priority actions

- Better inform the public about compliance promotion, monitoring and enforcement. At a minimum, this should involve ensuring information to farmers on how to comply with obligations on nitrates and nature. In addition, more online information should be provided on inspection plans, industrial inspections and on the follow up to detected cross-compliance breaches on nitrates and nature.
- Ensure more information on how professionals dealing with environmental crime work together.
- Improve financial security for liabilities and ELD-guidance and publish information on environmental damage.

## Effectiveness of environmental administrations

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

## Administrative capacity and quality

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

The 2017 European Quality of Government Index gives Slovenia a ranking of xxx (EU28 = 0)<sup>195</sup>.

To ensure effective environmental governance, environmental authorities must have staff with the appropriate administrative and technical knowledge and skills. Along with the 2017 EIR, the Commission launched the TAIEX-EIR Peer to Peer (P2P) initiative to encourage peer learning between experts from environmental authorities in different Member States.

An expert from the Slovenian government participated in a TAIEX-EIR P2P workshop in Budapest on 17-18 May

<sup>195</sup> European Commission, [The 7<sup>th</sup> Report on Economic, Social and Territorial Cohesion](#), 2017, p. 140.

2018. During the workshop, experts from Finland, the Netherlands and Slovenia shared their experience and advice with participants from the governments of Hungary, the Czech Republic, Slovakia and Poland on how to prepare a national circular economy action plan.

Slovenian experts also participated in a reciprocal TAIEX-EIR P2P study visit on waste management with Portuguese experts in September 2018. The visits took place in the Evora region in Portugal and in Ljubljana, Slovenia. The aim was to give the experts from the Evora region the opportunity to learn from the best practices of Ljubljana and get first-hand expert advice on waste management.

Finally, experts from the competent authority responsible for overseeing the EU Timber Regulation (EUTR) participated in a TAIEX-EIR P2P workshop to strengthen cooperation among the competent authorities from eight Mediterranean EU countries. The aim was to improve and harmonise the implementation of the EUTR in the Mediterranean region. Experts from the Netherlands and Denmark shared their experiences from the Nordic-Baltic network of EUTR competent authorities.

## Coordination and integration

The transposition of the revised environmental impact assessment (EIA) Directive<sup>196</sup> provides an opportunity for countries to streamline their regulatory framework on environmental assessments. Despite not meeting the transposition deadline of May 2017, Slovenia has transposed the revised Directive.

The Commission encourages the streamlining of the environmental assessments to reduce duplication and avoid overlaps in environmental assessments for projects. Streamlining helps to reduce unnecessary administrative burden. It also accelerates decision making without compromising the quality of the environmental assessment procedure<sup>197</sup>.

In transposing the revised EIA Directive, Slovenia further streamlined its environmental assessments. The new legislation (the Spatial Planning Act and the Construction Act), adopted in October and November 2017, integrate various assessments and permitting procedures. They provide for joint assessments under the EIA Directive, appropriate assessment under the Habitats Directive and the Water Framework Directive and coordinated

<sup>196</sup> [Directive 2014/52/EU](#).

<sup>197</sup> 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.

assessments under the EIA Directive and the Industrial Emissions Directive.

Following the adoption of the Spatial Planning Act and the Construction Act, a new Environmental Protection Act should be adopted in spring 2019. An amended Nature Conservation Act is also expected to be adopted. The adoption of these acts will conclude the round of legislative reforms in this area that started in 2013, partly because of the Commission's infringement procedures. The adoption of these acts are also in line with the 2017 EIR's suggested action to ensure that EU environmental legislation is respected in the national permitting system's reform which aims to remove unnecessary administrative burden and streamline procedures. Whereas Slovenia's progress in streamlining environmental assessments is recognised, the conformity check should provide further evidence on compliance.

### **Adaptability, reform dynamics and innovation (eGovernment)**

Slovenian public authorities are increasingly adopting and using electronic services that enable them to interact with the public online. The country performance was in line with the EU average in 2018. For Digital Public Services, the country has a score of 0.57/1 based on Europe's Digital Progress Report 2018, EU28 average being 0.57/1<sup>198</sup>. The situation has considerably improved since the year 2016, mainly in terms of open data.

The Ministry of Public Administration has taken a clear lead in coordinating digital public services in Slovenia. This Ministry is responsible for telecom regulation, e-Government, access to public sector data, data policy, network security and e-IDAS regulation implementation.

In the DESI Report 2018, Slovenia had a score of 58 out of 100 on digital public services, in line with the EU average<sup>199</sup>. By the end of 2017, about 65 public institutions had opened their data for re-use and there are now 3 700 data sets available to the public across all governmental departments. The Ministry of Public Administration is harvesting data sets from the Statistical Office and plans to also include data from sources such as the Parliament, the Bank of Slovenia, the cadastre and public utilities providers.

### **Enabling financing and effective use of funds**

The country receives significant EU support, which is mainly devoted to foster regional development. Governmental investment is strengthening again because

of faster disbursement of EU funds, and as a result of an electoral cycle effect<sup>200</sup>.

### **2019 priority action**

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

### **International agreements**

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

The EU is committed to strengthening environmental law and its implementation globally. It therefore continues to support the Global Pact for the Environment process, which was launched by the United Nations General Assembly in May 2018<sup>201</sup>. 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.

Slovenia has signed and ratified almost all multilateral environmental agreements. It has signed the Barcelona Convention's Offshore Protocol and the Nagoya Protocol but has not yet ratified them.

### **Forests: EU Timber Regulation (EUTR)<sup>202</sup>/ Forest Law Enforcement, Governance and Trade (FLEGT) Regulation<sup>203</sup>**

In accordance with the EUTR, which prohibits the placing on the EU market of illegally harvested timber, competent authorities in all EU Member States must conduct regular checks on operators and traders, and apply penalties in case of non-compliance.

Between March 2015 and February 2017, Slovenia carried out a total of 424 checks on operators of domestic timber and 29 checks on operators importing timber. The number of checks should be linked to the estimated number of operators in Slovenia who place timber on the EU market for the first time<sup>204</sup>. Slovenia also carried out 60 checks on traders<sup>205</sup>.

<sup>198</sup> European Commission, [DESI country profile Slovenia](#), 2018, p. 9.

<sup>199</sup> European Commission, [Digital Economy and Society Index Report 2018, Digital Public Services](#).

<sup>200</sup> European Commission, [European Semester Country Report 2018](#), pp. 4, 5, 38.

<sup>201</sup> [UN General Assembly Resolution 72/277](#) and [Organizational session of the ad hoc open-ended working group](#).

<sup>202</sup> [Regulation \(EU\) No 995/2010](#).

<sup>203</sup> [Regulation \(EC\) No 2173/2005](#).

<sup>204</sup> Based on customs' data, it was estimated that 460 Slovenian operators placed domestic timber on the EU market for the first time and 1 423 imported timber.

<sup>205</sup> Traders were checked by 19 countries, with numbers of checks ranging from 1 (Denmark, France, Luxembourg) to 747 (Cyprus). 12 out of 19 countries conducted between 1 and 65 checks.

Furthermore, Slovenia has taken various enforcement measures against operators of both domestic timber and imported timber for infringements of due diligence, prohibition or traceability. Some of these operators have received fines<sup>206</sup>.

Slovenia did not specifically report on its cooperation obligation under Article 12 of the EUTR. However, Slovenia has been involved in two networks: (i) a Central European regional network that also includes Austria, Hungary and Slovakia; and (ii) the EUTR Mediterranean network. Finally, Slovenia has offered to train delegates from other countries, for example by hosting a study visit for delegates from Serbia and Montenegro.

### **Genetic resources: Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising (ABS)<sup>207</sup>**

In line with the provisions of the EU ABS Regulation, which transposes the required compliance measures under the Nagoya Protocol into EU law, Slovenia has appointed competent authorities for genetic resources. It has also applied the Regulation's sanctions for infringements. Slovenia is still working on setting up a risk-based plan for checks. So far, it has not submitted a due diligence declaration or applied any penalties. Slovenia submitted its first ABS implementation report to the Commission at the end of 2017.

### **International wildlife trade: the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)<sup>208</sup>**

Slovenia has established relevant national authorities for the international wildlife trade and regularly processes requests for import, export, re-export, and intra-EU trade documents.

National reports on seizures data of illegal wildlife shipments (in particular those reported annually to EU-TWIX<sup>209</sup> team (TRAFFIC<sup>210</sup>) under its contract with the Commission, and those exchanged through the EU-TWIX platform, show the activity of customs authorities.

EU-TWIX then compiles, cleans and adapts the data to the CITES reporting format before transmitting them to the European Commission, which submits all the annual

illegal trade reports from the Member States to the CITES Secretariat.

### **2019 priority action**

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

## **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 2030 Slovenian Development Strategy<sup>211</sup>, adopted in 2017, has started a medium-term planning process to set out how the priority tasks and measures are determined and validated. The strategy sets out five orientations, which also include a well-preserved healthy natural environment, and twelve interconnected development goals. These include, among others, Goal 8 – Low-Carbon Circular Economy and Goal 9 – Sustainable Natural Resource Management. Each development goal has regularly assessed performance indicators. Performance indicators for Goal 8 are as follows: material productivity; share of renewable energy in gross final energy consumption; and GDP per total greenhouse gas emissions; and for Goal 9: utilised agricultural area; biochemical oxygen demand in rivers; and a new synthetic indicator Ecological Footprint (EF)<sup>212</sup> as one of the most widely used and recognised integrated sustainability indicators for human pressure on ecosystems, with the ambitious target of 20% reduction by 2030. EF (including the 20 % reduction target) is also proposed as key indicator for the new national environmental action programme up to 2030.

A number of policies and measures should help Slovenia to achieve its 2030 Development Strategy's goals. Priority tasks and actions for the government, local authorities and other stakeholders are set in line with these goals. The government office for development and European cohesion policy coordinated the preparation of the strategy. A special government council for development will be created to coordinate the implementation of the strategy. This consultative working body will include a wide range of stakeholders such as representatives of social partners, the private sector, civil society, institutions, regional and local communities and the government.

<sup>206</sup> 24 fines have been issued against operators of domestic timber and 2 fines against importers of timber.

<sup>207</sup> [Regulation \(EU\) No 511/2014](#).

<sup>208</sup> European Commission, [The Convention on International Trade in Endangered Species of Wild Fauna and Flora \(CITES\)](#).

<sup>209</sup> EU-TWIX (the European Union Trade in Wildlife Information exchange) is an internet tool to assist the EU in the fight against wildlife trade crime.

<sup>210</sup> TRAFFIC (Trade Records Analysis of Flora and Fauna in Commerce) is a leading non-governmental organisation working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development.

<sup>211</sup> [Slovenian Development Strategy 2030](#).

<sup>212</sup> Ministry of Environment and Spatial Planning, [Technical Report: The Ecological Footprint of Slovenia](#).

To ensure that the strategy is properly implemented, the long-term sustainability of public finances and a compatible budget need to be ensured. A four-year national development policy programme and a medium-term fiscal strategy will be prepared for this purpose.

According to the SDG index, developed by the Bertelsmann Stiftung and the UN Sustainable Development Solutions Network, Slovenia ranks 9th out of 157 countries for sustainable development. This shows that Slovenia is taking the right steps, but that it needs to continue to implement the necessary policies. For this purpose, the country needs to involve stakeholders and civil society in an inclusive process.

Slovenia submitted its voluntary national review on the implementation of the SDGs to the UN in 2017<sup>213</sup>.

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<sup>213</sup>[Voluntary National Review on the Implementation of the 2030 Agenda.](#)