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signed by Mr Jordi AYET PUIGARNAU, Director

date of receipt: 31 July 2019

To: Mr Jeppe TRANHOLM-MIKKELSEN, Secretary-General of the Council of  
the European Union

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

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Delegations will find attached document SWD(2019) 123 final/2.

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**CORRIGENDUM**

This document corrects document SWD(2019) 123 final of 04.04.2019  
Change of endnote to footnote 166, and footnotes 105, 169, 175, 178 modified  
The text shall read as follows:

**COMMISSION STAFF WORKING DOCUMENT**

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

*Accompanying the document*

**Communication from the Commission to the European Parliament, the Council, the  
European Economic and Social Committee and the Committee of the Regions**

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

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## Executive summary

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

In the 2017 EIR Report, the main challenges identified with regard to implementation in Italy were:

- **improve waste management**, in particular by reducing landfilling and increasing separate collection of waste in the southern regions;
- **improve urban waste-water** treatment through appropriate investment;
- **reduce particulate matter and nitrogen dioxide emissions** by reducing traffic congestion and biomass burning;
- **designate the remaining Natura 2000 sites as special areas of conservation** and ensure that **the Natura 2000 network is managed so that it achieves favourable conservation status** for all species and habitats.

Italy organised four thematic EIR seminars in 2017-2018 on general issues, waste, air and water. There has also been a dialogue held between the Commission and Italy about the EU's action plan on nature. The Commission launched in 2017 the TAIEX-EIR Peer-to-Peer (**EIR P2P**), as a new practical tool facilitating peer-to-peer learning between environmental authorities. Italy has profited of EU support with the **EIR peer to peer programme** activities on air pollution and forests. The **regionalised structure** of Italy means responsibilities are shared between the national and regional levels. This means that **effective coordination is needed within a system of multi-level governance**. The government's environmental programme must be achieved.

### Progress in meeting the challenges since 2017 report

**There has been some progress on waste management**, with a steady and consistent increase in recycling and composting over the past 7 years. However, more effort will be necessary to comply with EU recycling targets after 2020. The Italian government continues to clean up its irregular landfill sites. Some of these sites have prompted the Court of Justice of the European Union (CJEU) to levy financial penalties against Italy since 2014. Italy also continues to be subject to fines for failing to create an appropriate waste-management network in Campania although progress has been made by the region. Progress has been made in the development of a **circular economy national strategy** and an **action plan on sustainable consumption and production** in the light of the 2017 sustainable development strategy.

**On water management**, despite planning and the appointment of a special commissioner, there has been only limited **progress** in reducing the number of non-

compliant agglomerations under the **Urban Waste Water Treatment Directive**. This has led to the imposition of fines by the CJEU. Investments must continue in **land-use planning** (to reduce soil sealing) and in **flood control**.

On **air quality** there has been **limited progress** in reducing emissions as a whole, and agreements between the national government and regional governments have been concluded. These agreements have included planning measures (such as limited traffic zones), fiscal incentives and technical improvements to cars. However, for both particulate matter and NO<sub>2</sub> there were exceedances reported for 2016 and 2017. The main reason for exceedances is Italy's high level of road traffic, with over 80 % of trips made by private car, as well as inefficient domestic combustion. Progress must also be made in reducing subsidies to company cars, achieving parity between petrol and diesel fuel prices, and investing in more sustainable modes of transport.

On the **Natura 2000 network** there are still some special areas of conservation waiting to be designated. The conservation status of habitats and species of EU interest must also be improved by fully implementing the Natura 2000 instruments, using the regional prioritised action frameworks to better integrate EU funds, and planning investments more strategically.

The 2019 EIR shows that Italy could make more efficient **use of EU funds and loan opportunities**, by avoiding reallocation from the environment to other sectors and by increasing fund absorption with targeted capacity-building activities.

### Examples of good practice

- Italy has created specialised **environmental police** forces to deal with crime.
- The Ministry of Environment has been effective in promoting **LIFE projects**. Three of the most noteworthy LIFE projects are GESTIRE 2020 (to protect nature in Lombardy); PREPAIR (to improve air quality in the Po valley basin); and the Alien Species Awareness Programme (ASAP).
- **Spatial maps** used for air quality modelling and downloadable data for analysis in Milan.
- **Green roofs** which have the potential to reduce flooding by half.
- **Regional level good practices** to promote better water and waste management.
- On **circular economy**, stakeholders platforms, best practice exchanges, public/private alliances as well as awareness raising initiatives have proliferated in the last two years.

## Part I: Thematic areas

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

#### Measures towards the 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 EU has identified four parts to the circular economy<sup>3</sup>. It has also created 10 indicators – and a variety of sub-indicators – to monitor these parts. According to the EU’s monitoring framework for a circular economy, Italy was one of the top performers in the EU for one of these sub-indicators in 2016, when its circular-material use-rate was 17.1%<sup>4</sup>. Italy also had a higher percentage of persons employed in circular economy sectors than the EU average in 2016 (2.05 in Italy, 1.73 in the EU).

In November 2017, the Ministry of Environment and the Ministry of Economic Development published a joint document ‘Towards a model of circular economy in Italy’<sup>5</sup>. This strategic document is functional to the implementation of the national strategy for sustainable development, which was adopted by the Italian government on 2 October 2017. Together, these two documents represent a valuable contribution towards promoting the circular economy in Italy, providing a general framework. Following the publication of the

framework document, a public consultation took place. The consultation identified the need to revise regulations, create new economic instruments, raise awareness, and boost research and development on the circular economy. On 30 July 2018 a public consultation has been launched on monitoring framework for resource efficiency and circular economy prepared by the Ministry of Environment, the Ministry of Economic Development and the National Agency for New Technologies, Energy and Sustainable Development (ENEA). The consultation ended on 31 October, the results are now being processed.<sup>6</sup>

The circular economy is also a key component of ‘Industria 4.0’, the name given to the government’s economic development plan<sup>7</sup>. Circular economy appears as a clear priority in the update note for the 2018 budget<sup>8</sup>.

The European Social Fund and the European Regional Development Fund (ERDF) are also supporting the improvement of the regions’ capacity to plan and manage the transition of the local territorial systems towards the circular economy, respectively through the use of integrated policy tools as well as with opportunities to invest in the circular economy<sup>9</sup>. At the University of Tuscia in Civitavecchia (Roma) the first-degree course in Circular Economy has started<sup>10</sup>.

Another significant development in Italy’s promotion of the circular economy is the entry into force in June 2018 of ‘Made Green in Italy’, a voluntary system for assessing the environmental footprint of products<sup>11</sup>. Other important initiatives, such as the environmental footprint programme, were mentioned in the 2017 EIR.

Awareness of the circular economy concept and of the opportunities it can bring is growing in Italy. Some examples of this growing awareness are described in the report ‘100 Italian circular economy stories’<sup>12</sup>, which lists best practices from large companies, small and medium sized enterprises (SMEs), local authorities and civil

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

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

<sup>3</sup> (1) production and consumption, (2) waste management, (3) secondary raw materials, and (4) competitiveness and innovation.

<sup>4</sup> The indicator measures the degree of circular (secondary) materials in the economy in relation to the overall material use. [Monitoring Framework](#) website.

<sup>5</sup> ‘Towards a model of circular economy in Italy’, Ministero dell’Ambiente e della tutela del territorio e del mare; Ministero per lo Sviluppo Economico (2017).

<sup>6</sup> [Ministry of Environment](#), 2018.

<sup>7</sup> [National Reform Programme 2018](#), pp.18-20, pp.105-106.

<sup>8</sup> [Nota di Aggiornamento del DEF](#), 27.9.2018, p.87, pp.104-107.

<sup>9</sup> CREIAMO, [conference 11.4.2018](#)

<sup>10</sup> [University of Tuscia](#)

<sup>11</sup> [Ministry of Environment](#).

<sup>12</sup> ‘100 Italian circular economy stories’, promoted by Enel and the Symbola Foundation.

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society. Important events are taking place nationally<sup>13</sup>, including in the south<sup>14</sup>. The EU is providing other support, such as the ERDF supported FORCE project, which encourages cities to cooperate to promote the circular economy. This project involves the city of Genoa taking a lead on the issue of wood waste<sup>15</sup>. The 2018 'Restarter' project encourages the creation of a circular economy for second-hand clothes<sup>16</sup>. In addition, the National Council of the Green Economy has encouraged the creation of the States General of the Green Economy, a grouping of 66 business organisations that represent the green economy in Italy. In November 2017, eight large Italian companies (Enel, Intesa Sanpaolo, Novamont, Costa Crociere, Salvatore Ferragamo group, Bulgari, Fater e Eataly) have launched an Alliance for Circular Economy and signed a 'poster' to identify and disseminate national best practices on circularity. Such an Alliance aims at reinforcing the commitment to continuous improvement of Italian companies in terms of innovation, competitiveness and environmental performance along the entire value chain.

In November 2018, Confindustria<sup>17</sup> presented the document 'The role of Italian industry in the circular economy' which highlights the crucial role that the industry can play to facilitate the transition towards the circular economy.

The States General of the Green Economy also works in collaboration with the Ministries of Environment and Economic Development<sup>18</sup>. They meet yearly and presented the 2018 report on green economy<sup>19</sup> in the last meeting in November 2018.

Italy's Sustainable Development Foundation also produces regular reports on the green economy<sup>20</sup>, and on 4 May 2018, it launched the Circular Economy Network with the support of 13 companies and consortia.

Furthermore, ENEA has launched in 2018 the Italian Circular Economy Stakeholder Platform<sup>21</sup> that, like the European one<sup>22</sup>, is a network of networks with the objective of creating a point of national convergence of initiatives, experiences, criticalities, perspectives of the Italian system on circular economy.

On 21 April 2017 a cooperation agreement was signed for

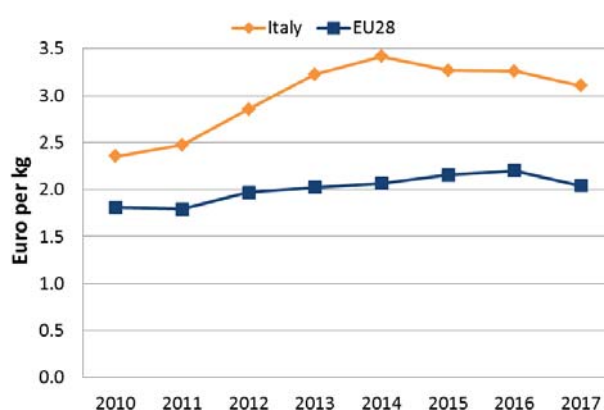
the constitution of an "Industrial Symbiosis National Network (SUN)" between ENEA and the Ministry of Environment, the Ministry for Economic Development, Confindustria, several Italian universities and various associations operating in the field of the environment.

In the special Eurobarometer survey of October 2017 on attitudes of EU citizens towards the environment, 93 % of Italians said they were highly concerned about the effects of plastic products on the environment (the EU-28 average is 87 %), and 93 % of Italians said were concerned about the impact of chemicals (the EU-28 average is 90 %)<sup>23</sup>. Moreover, 79 % of Italians supported greater EU investment in environmental protection (this was less than the EU-28 average of 85 %). Italians appear to support circular economy initiatives and environmental protection measures.

Private investment, jobs and gross value added in circular economy sectors of the economy have increased in Italy from EUR 17 438 million in 2008 to EUR 17 756.6 million in 2015<sup>24</sup>.

In terms of resource productivity<sup>25</sup> (how efficiently the economy uses material resources to produce wealth), Italy performs better than the EU average. In 2017, it produced an average of EUR 3.10 per kg of material resources (the EU average is EUR 2.04)<sup>26</sup>. Figure 1 shows that Italy has seen a small but steady increase in resource productivity since 2010; there has been some decoupling with economic growth over the same period. It also had the fourth-highest resource productivity in the EU in 2017.

Figure 1: Resource productivity 2010 - 2017<sup>27</sup>



Overall, around 345 000 Italian companies invested in the

<sup>13</sup> for example, the Italian consumer association, [Altroconsumo.it](http://Altroconsumo.it), held an event in September 2018 focused on the circular economy.

<sup>14</sup> Naples Energy and Environment Agency, [Conference on Circular Economy](#), 28-29.11.2018

<sup>15</sup> [FORCE](#).

<sup>16</sup> [Restarter](#).

<sup>17</sup> General Confederation of Italian Industry.

<sup>18</sup> [States General](#).

<sup>19</sup> [States General, 2018 report on the state on green economy](#)

<sup>20</sup> [Sustainable Development Foundation](#).

<sup>21</sup> ENEA [Italian Circular Economy Stakeholders Platform](#).

<sup>22</sup> i.e., the European Circular Economy Stakeholders Platform.

<sup>23</sup> European Commission, 2017, [Special 468 Eurobarometer](#), 'Attitudes of European citizens towards the environment'.

<sup>24</sup> Eurostat, [Private investments, jobs and gross value added related to circular economy sectors](#).

<sup>25</sup> Resource productivity is defined as the ratio between gross domestic product (GDP) and domestic material consumption (DMC).

<sup>26</sup> Eurostat, [Resource productivity](#).

<sup>27</sup> Eurostat, [Resource productivity](#).



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green economy between 2011 and 2017, and around 24.9% of all Italian businesses and 30.7% of manufacturing can be considered 'green' in 2017. The rate of innovation of these green businesses was twice that of other businesses in 2017<sup>28</sup>.

Recent research on more than 600 waste-water treatment plants in Italy, covering approximately 25% of the country's total load of treated sewage, reveals that just 40% of plants engage in some form of material or energy recovery<sup>29</sup>. The research identified three primary driving forces that promote resource-recovery: technical reliability, economic feasibility, and socio-legislative acceptance.

As of September 2018, Italy had 9929 products and 325 licences registered under the EU's ecolabel scheme out of 71 707 and 21607 licences in the EU, the second-highest figure after Spain<sup>30</sup>. Moreover, 983 organisations from Italy are currently registered in EMAS<sup>31</sup>, the European Commission's eco-management audit scheme.

### SMEs and resource efficiency

SMEs are the backbone of the Italian economy. But Italy performs badly on some indicators for the environmental performance of its SMEs (see Figure 2), for which it received a Suggested Action in the 2017 EIR. On a positive note, the share of Italian SMEs that generate most of their turnover from green products or services is higher than the EU average. The percentage of SMEs taking resource-efficiency measures in Italy has increased between 2015 and 2017.

Since 2008, policy progress in promoting the environmental performance of SMEs has been moderate. Italy has formulated its main policies and strategies within the framework of EU and international commitments. Regulation and legislation took the form of support measures and financial incentives, such as green and white certificates, feed-in premiums for photovoltaic electricity, reduction of electricity costs for small companies, and tax deductions for upgrading the environmental performance of buildings. Only 16% of SMEs offer green product or services, less than the EU average (25%). Smaller firms have fewer resources and less capital. They therefore face more challenges in meeting the high cost of research, and in accessing European and national funding.

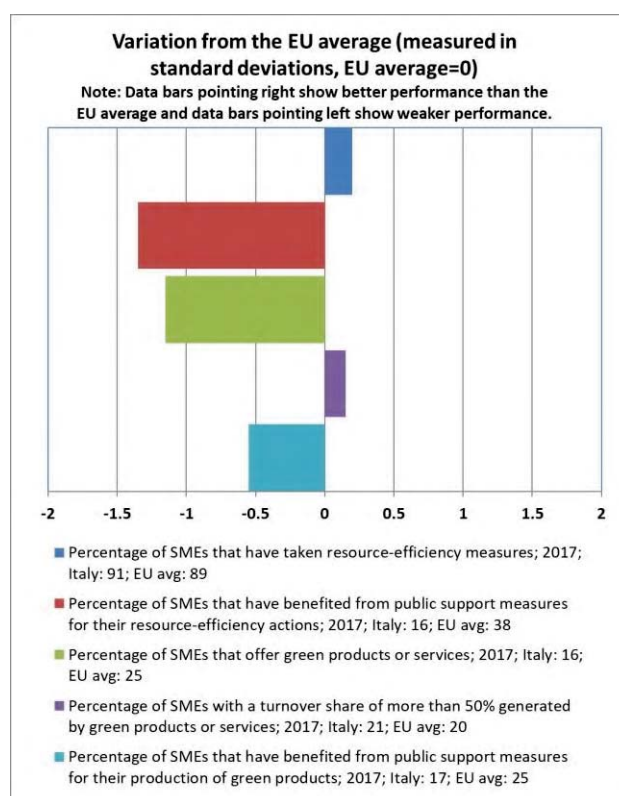
<sup>28</sup> Symbola, [GreenItaly2018, p.8](#).

<sup>29</sup> Papa, M., Foladori, P., Guglielmi, L., Bertanza, G. (2017). How far are we from closing the loop of sewage resource recovery? A real picture of municipal wastewater treatment plants in Italy. *Journal of Environmental Management*, 198: 9-15.

<sup>30</sup> European Commission, [Ecolabel Facts and Figures](#).

<sup>31</sup> As of May 2018. European Commission, [Eco-Management and Audit Scheme](#).

**Figure 2: Environmental performance of SMEs<sup>32</sup>**



Several of these incentives were repeatedly changed, which has created some uncertainty in the markets. SMEs were not a specific target of these incentives, but they are among the beneficiaries.

The latest Eurobarometer survey 'SMEs, resource efficiency and green markets'<sup>33</sup> shows improvements have been made on some of the main indicators. Public support for Italian SMEs seems to be acknowledged by the survey respondents, as 64% of 'green' SMEs are satisfied with the assistance they receive from the government (compared to an average of 58% in the EU-28). 17% of Italian SMEs make more than 75% of their turnover from green products or services. This is better than the EU-28 average: only 14% of EU-28 SMEs make more than 75% of their turnover from green products or services. While the average number of employees working in green jobs in the EU is 4, in Italy it is 2.6.

For the year 2018 it is expected that 63.5% of the new contracts for design and research are green, demonstrating the ever closer link between the green economy and business innovation<sup>34</sup>.

Nonetheless, the Eurobarometer shows there is still room for improvement. For example, only 44% of Italian

<sup>32</sup> European Commission, [2018-SBA factsheet](#): Italy, p. 15.

<sup>33</sup> European Commission, [Flash Eurobarometer 456: SMEs, resource efficiency and green markets](#), 2018.

<sup>34</sup> Symbola – Green Italy 2018



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SMEs have invested up to 5 % of their annual turnover in becoming more resource efficient (compared to an EU average of 50 % of SMEs). And only 20 % of Italian SMEs say they offer green products of services (or are planning to do so in less than two years) compared to an EU average of 33 % of SMEs.

Over the 2014-2020 programming period, the ERDF will invest in research and innovation and SME competitiveness. Its investment criteria are based on national and regional ‘smart specialisation’ strategies. For Italy, the national strategy identifies five focus areas, including energy, the environment and sustainable industry. For example, the Piedmont ERDF operational programme 2014-2020 is contributing to a loan fund to support innovative projects for environmental sustainability<sup>35</sup>.

Nationally, the government’s ‘Start Up’ and ‘Innovative SMEs’ initiatives have been supported by the annual budget 2017 and Industria 4.0<sup>36</sup>. Development contracts are being put into place to help businesses invest more productively in the environmental field<sup>37</sup>. This EU and national support is helping SMEs to become more resource efficient.

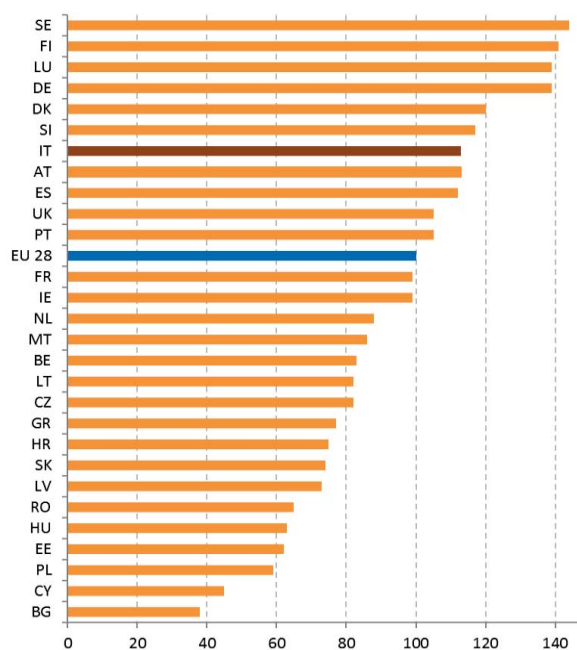
### Eco-innovation

Italy ranked 19<sup>th</sup> on the European Innovation Scoreboard 2018, with a 2-point improvement since 2010<sup>38</sup>. The country has a better position in the Eco-innovation Scoreboard 2017, when Italy moved up in the EU-28 ranking from 10<sup>th</sup> to 7<sup>th</sup> place (Figure 3).

As mentioned in the 2017 EIR, there are two barriers to eco-innovation and the circular economy in Italy. The first barrier is structural, and includes problems in the economy and technology. The second barrier is caused by policy and regulation.

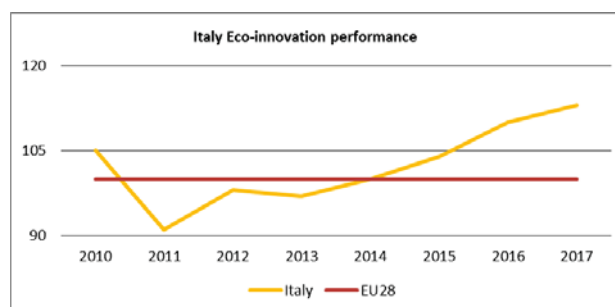
For an advanced economy, Italy has very few natural resources. Italy has a strong manufacturing sector, but the cost of imported raw materials and their impact on the final cost of products is high. For this reason, eco-innovative initiatives might be a way to increase the productivity of resource use and promote eco-innovation in processes, products and consumption.

Figure 3: 2017 Eco-innovation index (EU=100)<sup>39</sup>



SMEs have fewer resources and less capital. They therefore face more challenges in meeting the high cost of research, and in accessing European and national funding. However, according to the 2017 ‘Green Italy’ report, 354 580 Italian companies invested in green products and technologies in the period 2011-2016 (or expect to do so by the end of 2017). This is 27.1 % of all Italian companies in the country, and 33.8 % of companies in manufacturing. In 2018, about 207 thousand companies have invested, or intended to do so by December, on sustainability and efficiency. 79% of manufacturing companies have developed innovation activities. Among the companies investing in the green, 26% have already taken measures related to ‘Industria 4.0’<sup>40</sup>.

Figure 4: Italy’s eco-innovation performance



### 2019 priority action

- Increase the available risk capital for eco-innovation in SMEs.

<sup>35</sup> 2018 ERDF Annual Implementation Report, Piedmont, pp.5-6.

<sup>36</sup> [National Reform Programme 2018](#), p. 104.

<sup>37</sup> [National Reform Programme 2018](#), p. 106.

<sup>38</sup> European Commission, [European innovation Scoreboard 2018](#), p. 15.

<sup>39</sup> Eco-innovation Observatory: [Eco-Innovation scoreboard 2017](#).

<sup>40</sup> Symbola – [GreenItaly2018](#)

## 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>41</sup> for which EU law sets mandatory recycling targets<sup>42</sup>.

Municipal waste generation has slightly decreased in 2017 in Italy. At 489 kg per year per inhabitant, it is now above the EU average estimate of 487 kg per year per inhabitant<sup>43</sup>.

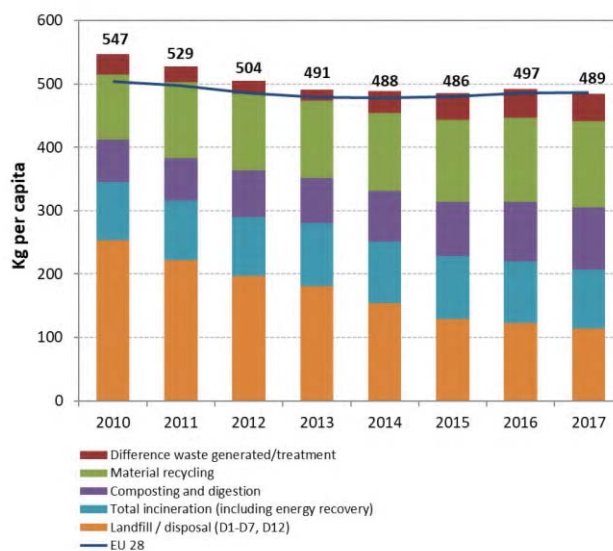
Figure 5 depicts municipal waste by treatment type in Italy in kg per capita. It shows there has been a steady increase in recycling and composting, and a decrease in landfilling.

A significant obstacle to eco-innovation in the country remains the low rate of R&D and investment. The availability of risk capital for both the creation and continuation of eco-innovative projects remains scarce. This problem is due to the low level of public support for SMEs that wish to take part in the green economy.

Figure 6 shows that 48 % of municipal waste was recycled in 2017 (including composting and material recycling), although there are large differences between regions. This is equivalent to the EU average of 46 % and slightly below the EU target to recycle 50 % of material waste by 2020<sup>44</sup>. Italy is not considered at risk of missing the 2020 targets for reuse/recycling of waste<sup>45</sup>. There has been a steady increase in recycling and composting rates over the past 7 years. However, more effort will be necessary for Italy to comply with the recycling targets planned for

the period after 2020<sup>46</sup>, although some regions will have to make more efforts than others do as described later in this section.

**Figure 5: Municipal waste by treatment in Italy 2010-2017**<sup>47</sup>



In 2017, 23 % of municipal waste was landfilled (the EU average was 24 %). Landfilling of municipal waste has been consistently decreasing since 2002 in favour of other more environmentally friendly treatment options (so higher in the ‘waste hierarchy’), including separate collection and recycling<sup>48</sup>. Incineration rates are also falling. 19 % of waste was incinerated in 2017, below the EU average of around 28 %. As stated in the 2017 EIR, the Italian government continues to clean up the irregular landfill sites that have been the cause of financial penalties from the CJEU since 2014.

Waste policies in Italy are implemented at regional, provincial and municipal levels under national umbrellas. Despite overall progress in separate collection and recycling, the differences in performance at the local level can be high. High recycling rates are common in the north of the country, and in some parts of the centre and south. For example, in the province of Benevento in Campania, 70.9 % of waste is separated and recycled, while in the province of Oristano in Sardinia, 71 % of

<sup>41</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>42</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>43</sup> Eurostat, [Municipal waste by waste management operations](#).

<sup>44</sup> Member States may choose a different method than the one used by Eurostat (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>45</sup> [COM \(2018\) 656](#).

<sup>46</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.

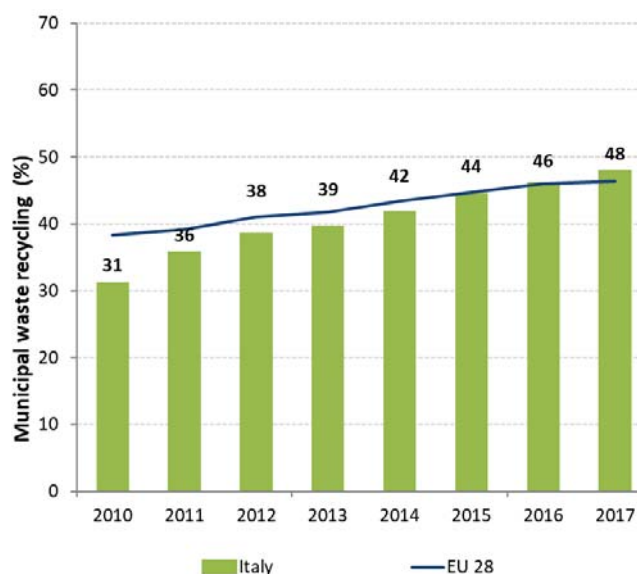
<sup>47</sup> Eurostat, [Municipal waste by waste operations](#), at national level [ISPRA](#) and the [Sustainable Development Foundation](#) produce annual reports on waste in Italy. However, the data used here is mainly from Eurostat, unless stated otherwise.

<sup>48</sup> Italy has introduced measures to increase separated collection and recycling since 1997.

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waste is recycled<sup>49</sup>. However, in general the centre and south of the country perform less well in waste management than the north. Campania is continuing to pay fines for poor waste management, after it was sanctioned by the CJEU for its previous waste-management policies. However, steady progress has been made in Campania to put in place a functional waste management network. A protocol was signed in November 2018 to deal with the so-called ‘land of fires’ containing an action plan<sup>50</sup>.

**Figure 6: Recycling rate of municipal waste 2010-2017** <sup>51</sup>



Emilia-Romagna has a separate collection rate of 61.8 %, and Lombardy’s rate is 60.8 % (these are average rates, but the separate collection rates are much higher in some parts of these regions). Only 4.7 % of Emilia-Romagna’s municipal waste is landfilled, and 0.64 % of Lombardy’s municipal waste is landfilled. Both these regions are therefore well positioned to meet the new EU waste targets. These targets state that at least 55 % of municipal waste should be recycled by 2025, rising to 60% by 2030 and 65 % by 2035. For landfill, the new target is for only 10 % of municipal waste to be landfilled by 2035<sup>52</sup>. It should be noted that landfill taxes vary between regions. Several Italian regions have already embedded a holistic circular economy approach into their regional waste planning.

Public services have been made less complex by reducing the number of waste disposal areas or ATOs (Ambiti Territoriali Ottimali di Smaltimento) in some regions. The annual budget law 2018 provides a credit for businesses of 36 % for purchasing recycled plastic.

Ex-ante conditionality has been applied to the ERDF 2014-20 to ensure that regions in need of waste-management infrastructure (the southern regions) have a waste management plan in conformity with EU law. Whilst most eligible regions have now fulfilled this ex-ante conditionality, this is still not the case for Sicily.

In addition, the European Fund for Strategic Investments (EFSI) is being used to improve environmental infrastructure for waste<sup>53</sup>. ERDF investments in 2014-2020 for waste projects are only aimed at activities at the top of the ‘waste hierarchy’. They therefore exclude funding for landfill and incineration.

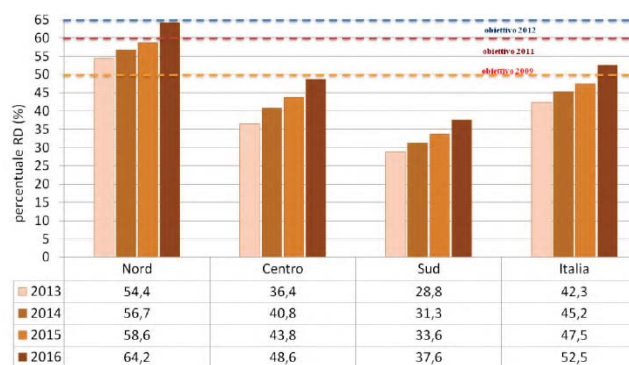
As mentioned in the 2017 EIR decree were passed in 2016 for incineration and for measures to create an integrated system for organic municipal waste<sup>54</sup>. A new decree on re-use centres is being planned. A pilot project on deposit schemes is also being planned.

Rates of separate collection and recycling of municipal waste are constantly growing across Italy, as shown in Figure 7 <sup>55</sup>.

In the province of Treviso, one example of best practice is the integrated waste-management system, which begins with kerbside waste collection (separated recycling waste — including organic waste — and a pay-as-you-throw scheme for residual waste). These measures alone increased the recycling rate to over 85 % in 2013 and residual waste per person of 53 kg/year<sup>56</sup>.

As mentioned in the 2017 EIR, Italy applies extended producer responsibility (EPR) for packaging waste through CONAI, the national organisation for packaging makers.

**Figure 7: Regional separate collection rates** <sup>57</sup>



On waste prevention, Italy adopted the national waste prevention programme in 2013. On the basis of this programme, each region has adopted regional

<sup>49</sup> ISPRA [Rapporto Rifiuti Urbani](#) Edizione 2015, pp.61-62.

<sup>50</sup> Ministry of Environment, [Press Release](#), 23.11.2018

<sup>51</sup> Eurostat, [Recycling rate of municipal waste](#).

<sup>52</sup> CINSEDO, [EIR waste seminar](#) 2018.

<sup>53</sup> EFSI — [Aimag Settore Idrico e Ambiente](#).

<sup>54</sup> [Decreto DPCM](#), 10.08.2016 & [Decreto DPCM](#) 7.3.2016.

<sup>55</sup> ISPRA [Rapporto Rifiuti Urbani Edizione 2017](#), p. 39.

<sup>56</sup> Zerowaste Europe, [The story of Contarina](#), 2015

<sup>57</sup> ISPRA [Rapporto Rifiuti Urbani Edizione 2017](#), p. 39.

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prevention plans that promote greater use of green public procurement and recycling. The government has indicated that the country's waste prevention programme might be revised to align it more closely with circular economy considerations<sup>58</sup>.

### 2019 priority actions

- Introduce new policy and economic instruments to: (i) promote waste prevention, (ii) make product re-use and waste recycling more economically attractive and (iii) shift re-usable and recyclable waste away from landfilling.
- Harmonise regional landfill tax rates.
- Increase recycling rates by focusing on the effectiveness of the separate collection obligation.
- Improve the functioning of Extended Producer Responsibility Systems, in line with the general minimum requirements on EPR.
- 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 EU emissions trading system (EU ETS) covers all large greenhouse gas emitters in the industry, power and aviation sectors in the EU. The EU ETS applies in all Member States and has a very high compliance rate. Each year, installations cover around 99 % of their emissions with the required number of allowances.

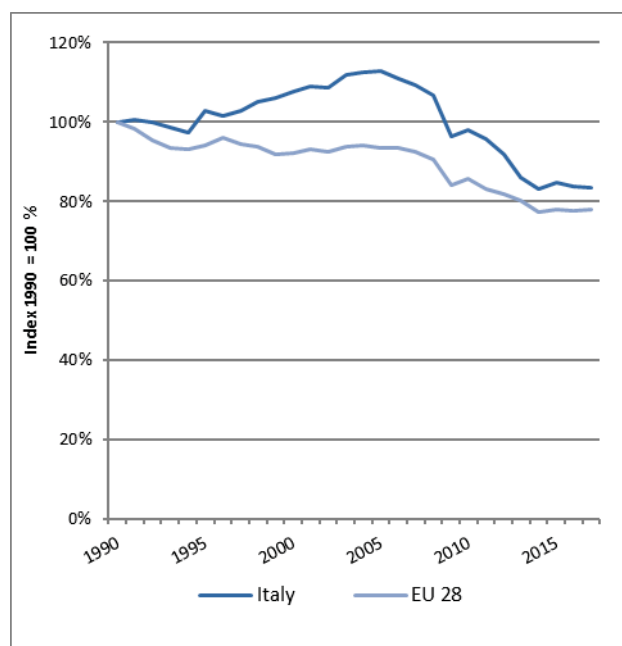
For emissions not covered by the EU ETS, Member States have binding national targets under the effort sharing legislation. Italy's greenhouse gas emissions were below its annual emission allocations (AEAs) in each of the years 2013-2017, as shown in Figure 9.

For 2020, Italy's national target under the EU Effort Sharing Decision is to reduce emissions by 13 % compared to 2005. For 2030, Italy's national target under the Effort Sharing Regulation will be to reduce emissions by 33 % compared to 2005. See Figure 9.

<sup>58</sup> Ministry of Environment, [Speech of Minister Costa](#), 5.7.2018.

The national energy strategy from November 2017 notably foresees a 28% renewables target for in final energy consumption and 30% target in energy savings by 2030 as well as the doubling of R&D investments in clean-energy technologies to € 444 million in 2021. Those objectives are however being currently revised by the new government, also in light of the new EU energy and climate targets for 2030. The Italian National Energy and Climate Plan (NECP), to be finalized by the end of 2019, is expected to further strengthen and detail national policy measures to meet the EU's 2030 targets for energy and climate<sup>59</sup>. Italy adopted a low-carbon development strategy in 2013 as part of the previous national energy strategy. This low-carbon development strategy outlined various ways to support the progressive decarbonisation of the economy, and meet the target of reducing greenhouse gas emissions by between 80 % and 95 % from 1990 levels by 2050. A new National Long Term Strategy will, however, have to be prepared by January 2020, in the context of the finalisation of the Italian NECP.

Figure 8: Change in total greenhouse gas emissions 1990-2017 (1990=100 %) <sup>60</sup>



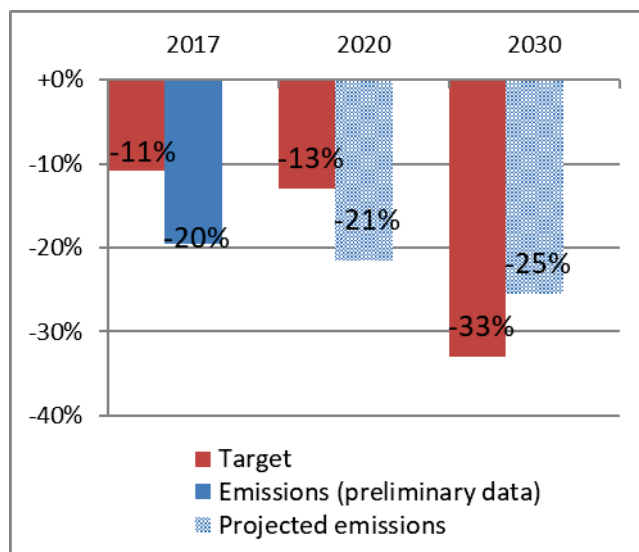
Transport represents almost a quarter of the EU's GHG emissions and is the main cause of air pollution in cities. Greenhouse gas emissions from transport in Italy increased by 1 % from 2013-2016 as shown in Figure 10.

<sup>59</sup> Ministry of Economic Development, [National Energy Strategy](#), 2017.

<sup>60</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.



**Figure 9: Targets and emissions for Italy under the Effort Sharing Decision and Effort Sharing Regulation** <sup>61</sup>



The Regulation on fluorinated greenhouse gases (F-gas) requires Member States to run training and certification programmes, introduce rules for penalties and notify these measures to the Commission by 2017. By 10 January 2019, Italy has not notified neither such training programmes, nor rules on penalties, but has signalled that this will happen soon.

The accounting of GHG emissions and removals from forests and agriculture is governed by the Kyoto Protocol. A preliminary accounting exercise shows net credits of, on average, -13.7 Mt CO<sub>2</sub>-eq, which corresponds to 11.8% of the EU-28 accounted sink of -115.7 Mt CO<sub>2</sub>-eq<sup>62</sup>.

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.

The Italian National Adaptation Strategy to Climate Change (NAS) was adopted on June 2015 with a Directorial Decree of the Environment Ministry. A National Adaptation Plan (NAP) is currently under development through a consultative process. The NAP elaboration started in 2016 and its finalization is tentatively planned for the first half of 2019. The NAP will provide institutional support to national and local authorities, for the integration of adaptation measures within spatial and sectorial planning. The NAP comprises:

<sup>61</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.

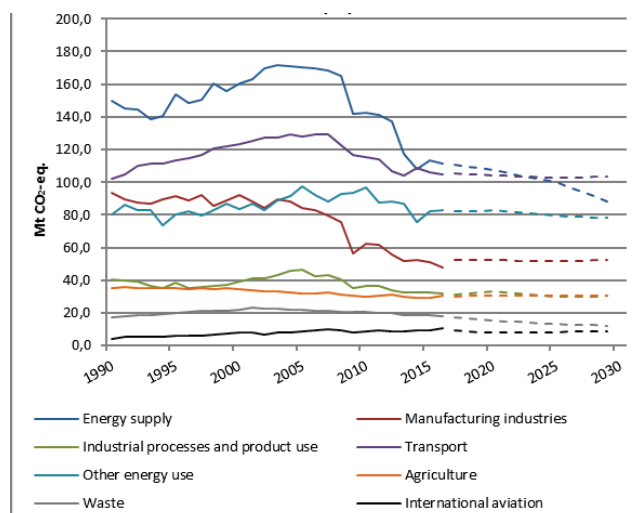
<sup>62</sup> COM (2018) 716 final and SWD (2018) 453 final.

a context analysis on current and future climate variability; an evaluation of impacts and vulnerability of the main sectors identified; a risk assessment; adaptation actions at national level; tools for institutional and stakeholders participation and for monitoring and evaluation of adaptation actions.

In order to provide access to climate change adaptation relevant information, data and documents and to support local decision making, a national platform is currently under preparation, using Climate-ADAPT as model.

In the framework of CREIAMO PA Project "Skills and Networks for Environmental Integration and for the Improvement of Public Administration Organizations", in 2018 the Environment Ministry started the activities on "Strengthening of administrative capacity for adaptation to climate change", with the aim to support regions and municipalities with guidelines for developing local climate change adaptation strategies or plans and for training administrators on climate changes adaptation.

**Figure 10: Greenhouse gas emissions by sector (Mt. CO<sub>2</sub>-eq.). Historical data 1990-2015. Projections 2016-2030** <sup>63</sup>



As of May 2018, more than 4 000 cities and municipalities in Italy have committed to the Covenant of Mayors, a grouping of cities that seek to promote energy efficiency and use more renewable energy. 220 of these cities have committed to adaptation planning and actions as part of the Covenant of Mayors. The city of Bologna is one of the cities that have completed a local adaptation strategy<sup>64</sup> as part of this commitment.

<sup>63</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>64</sup> European Commission, EGCA 2019 Good Practice Factsheets

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The total revenues from the auctioning of emission allowances under the EU Emission Trading Scheme (ETS) over the years 2013-2017 were EUR 2 341million. Italy has not yet used the revenues generated from the auctioning of allowances in the year 2016. However, such revenues have already been committed according to the principles enlisted in ETS Directive, article 10. Indeed, according to Legislative Decree 30/2013, article 19 (3), the revenues generated from the auctions are allocated on yearly basis, through specific decrees of the Ministry for the Environment Land and Sea co-signed by Ministry of Economic Development and Ministry of Finance. These decrees can only be issued in the year n+1, after the conclusion of the auctions for the year n and the verification of coherence between auctioned allowances and revenues generated. The Ministerial decrees that redistribute 2016 revenues are currently being finalized. National legislation stipulates that 50 % of the revenues should be used for climate-related purposes.

Beyond climate change, energy-policy choices can have significant environmental impacts as well as bring some acceptability issues. For instance, the 2016 referendum on oil and natural gas drilling was for several months at the centre of the Italian political debate. Similarly, projects like the trans-Adriatic pipeline have generated media interest and local protests in Apulia, with residents opposing the project.

### 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.

The Commission held a two-day dialogue with the Italian government on 12-13 February 2018 to discuss natural capital and biodiversity. The dialogue was part of the EU's action plan for nature, people and the economy<sup>65</sup>. The dialogue was a chance to discuss all the main implementation problems related to the Habitats and Birds Directive in Italy and to agree on appropriate follow-up (road map).

### Biodiversity strategy

The national biodiversity strategy ('Strategia Nazionale per la Biodiversità')<sup>66</sup> was adopted in 2011. Italy now plans to update this strategy, reflecting the commitments agreed to in the nature dialogue (these include a commitment to draw up national strategic conservation objectives that would help Italy achieve favourable conservation status for its habitats and species).

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

In Italy, 2 613 sites have been designated under the Habitats and Birds Directives. By the end of 2017, 19 % of the country's national land area was covered by Natura 2000 (the EU average was 18.1 %). By the end of 2017, Italy's marine Natura 2000 designations covered 6 859 km<sup>2</sup>. Italy has still not designated enough of its marine area for the relevant habitat types and species covered by the nature directives. To remedy this, Italy has committed to identify and designate the necessary sites by the end of 2019<sup>67</sup>. This will include special protection areas for marine birds.

<sup>65</sup> European Commission, [SWD \(2017\)139 final](#), 27.4.2017, Action 5, p. 12.

<sup>66</sup> [Italian National Biodiversity Strategy](#).

<sup>67</sup> For each Member State, the Commission assesses whether the species and habitat types on Annexes I and II of the Habitats Directive are sufficiently represented by the sites designated to date. This is expressed as a percentage of species and habitats for which further areas need to be designated in order to complete the network in that country.



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

In the last two years, Italy has made progress in designating special areas of conservation (SACs) and drawing up conservation measures for the sites. In spite of this progress, Italy has still exceeded the six-year deadline for designating these areas set out by the Habitats Directive. As of December 2018, 1927 of 2 335 Sites of Community Interest (SCIs) had been designated as SACs. Italian authorities plan to finalise the appropriate conservation objectives and measures for all SACs by the end of 2019. Some recent progress was the designation of 96 SACs in Veneto in July 2018<sup>68</sup> and the designation of a total of 92 SACs in Basilicata, Puglia, Molise and Abruzzo in December 2018<sup>69</sup>.

The Commission receives many complaints about Italy's implementation of the Nature Directives. These complaints concern the degradation of designated sites; the poor quality of appropriate assessments under Article 6(3) of the Habitats Directive, and insufficient enforcement of species protection. This poor implementation of the Nature Directives damages nature but it also affects business and legal certainty. Italian authorities, in consultation with the Commission, have drafted new national guidelines for the implementation of provisions in Article 6(3) and 6(4) of the Habitats Directive. These new guidelines are meant to improve, clarify, harmonise and streamline the implementation of the site impact assessments across all Italian regions.

Moreover, the previously cited CREIAMO PA project is aimed at strengthening the administrative capacity on procedure according the article 6(3) of the Habitats Directive.

<sup>68</sup> Ministry of Environment, [Press Release](#), 30.07.2018

<sup>69</sup> Ministry of Environment, [Press Release](#), 28.12.2018.

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

Considering that Member States report every 6 years on the progress made under both directives, no new information is available on the state of natural habitats and species, nor on progress made in terms of improving the conservation status of species and habitats in Italy, as compared to the 2017 EIR.

Italy acknowledges that the lack of appropriate resources for land management and conservation measures is a major obstacle to it achieving the objectives of the Nature Directives. This obstacle could be partly removed by administrative capacity-building and more effective mainstreaming of nature-conservation measures and objectives in other sectoral policies, at regional and national level. In the 2007-2013 period, funding from the ERDF and the European Agricultural Fund for Rural Development (EAFRD)<sup>70</sup> for nature-conservation measures was particularly low (see Section 4).

At regional level the Prioritized Action Frameworks (PAF) play a strategic role to ensure effective integration and adequate resources planning to finance Natura 2000 conservation measures.

A LIFE Integrated Project (GESTIRE 2020) is currently under way which will create an integrated management structure for achieving conservation objectives for the Lombardy Natura 2000 regional network, a real implementation of the PAF that will be disseminated also to other regions. The project aims to update the Lombardy prioritised action framework in the following ways: coordinating management; integrating regional policies; training personnel; raising public awareness; and planning measures to conserve biodiversity, such as enhancing connectivity and tackling invasive alien species<sup>71</sup>. For the next financial period 2021-2027, the Ministry for Environment is putting in place actions for improving preparation and use of the new PAFs.

In 2018 the Ministry of Environment activated under the budget of the ERDF National Operational Programme (PON) Governance the project 'Mettiamoci in RIGA'<sup>72</sup> aimed to support the administrative governance of the Natura2000 sites. A national action plan against the illegal trapping, killing and trade of wild birds was adopted by Italy in March 2017. Its implementation started immediately with high engagement of administrations and stakeholders, working to increasing controls and enforcement mainly on the identified blackspots, propose legal improvements, increase of knowledge and

public awareness.

On the hunting of bird species with declining populations or unfavourable status, Italy has been working to draft management plans for a number of such species (such as the skylark, rock partridge, grey partridge, turtle dove, black grouse, Barbary partridge and red-legged partridge). Measures to improve the collection of 'hunting-bag' data and the assessment of the sustainability of hunting are also ongoing.

There are persistent data gaps in the forestry sector. Italy has not reported data on annual wood removals to the joint forest sector questionnaire (an international survey of forestry in which Eurostat participates) for several years. This makes it difficult to ascertain whether forest harvesting rates are sustainable. There is no information on the share of forest area that is being managed under a management plan or equivalent (no figures for the 2010 reporting period). The new Directorate General for Forests of the Ministry of Agricultural, Food and Forestry Policies, established in 2017, is working, together with the Italian statistical office (ISTAT), for the new data collection system, which should start again in 2019.

### 2019 priority actions

- Finalisation of SCI and Special Protection Areas (SPA) designations for marine areas. Finalisation of SAC designations and of sites' conservation objectives and measures.
- Adoption and implementation of new national guidelines to implement assessment procedures under Article 6(3) and 6(4) of the Habitats Directive. Build administrative capacity for their implementation.
- Provide adequate resources and build capacity of competent authorities (at regional and site level) to fully implement site conservation measures and species action plans.
- Full implementation of the national action plan against illegal trapping, killing and trade of wild birds.

### 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.

In Italy, the 2013 law on the development of green urban areas aims to promote green areas for providing ecosystem services (air quality, reduction of hydrological risks, soil protection and culture). The law identifies a set of measures to accomplish this. These measures include

<sup>70</sup> European Agricultural Fund for Rural Development.

<sup>71</sup> [GESTIRE 2020 LIFE integrated project](#).

<sup>72</sup> Ministry of Environment, [Mettiamoci in RIGA](#) (putting ourselves in line)

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green urban planning and monitoring; support to local-level initiatives. As mentioned in the 2017 EIR, the 2014 Charter of Rome on Natural and Cultural Capital<sup>73</sup> highlights the importance of green infrastructure for the green economy and for its natural, cultural, social and economic benefits. In February 2017, the Italian Natural Capital Committee published the first report on the state of natural capital in Italy. This first report collected information on the conservation status of water, soil, air, biodiversity and ecosystems. It also contained a map of ecosystems and an assessment of their conservation status to serve as the first step in identifying restoration priorities to restore, maintain and improve ecosystem services.

Ecological network policies are being developed at regional level (e.g. Lombardy) and municipal level (e.g. Rome) which regulate spatial planning at various degrees. On agricultural policies, green infrastructure is mentioned in several EAFRD regional programmes and related measures<sup>74</sup>. The 2014-2020 ERDF and EAFRD regional programmes contain measures to invest in nature-based solutions for flood-risk management. The ERDF is also providing EUR 13.4 million for a green infrastructure project in Basilicata<sup>75</sup>. Various Italian cities participate in Horizon 2020 projects. For example, Mantova is part of the URBAN GreenUP<sup>76</sup> project, which aims to support the co-development of 'renaturing' urban plans. These plans focus on climate-change mitigation and adaptation; efficient water management; and the implementation of nature-based solutions.



Another project that promotes biodiversity is the Re-Cereal project, which is a RegioStars 2018 finalist co-financed by the ERDF under the Austria-Italy cooperation programme. Re-Cereal aims to reintroduce gluten-free

cereals in the Alps to improve biodiversity and healthy eating<sup>77</sup>.

The EU has provided guidance on the further deployment of green and blue infrastructure in Italy<sup>78</sup> and a country page on the Biodiversity Information System for Europe (BISE)<sup>79</sup>. This information will also contribute to the final evaluation of the EU Biodiversity Strategy to 2020.

By the end of 2018 Italy was to deliver the Report on 'resource mobilisation' in conjunction with its sixth national report of the Convention on Biological Diversity (CBD) implementation. Reporting to the CBD on financial flows is important, as it clarifies the financial positions of the EU and the Member States in the CBD. This reporting also helps to support good practice in other countries.

### Estimating natural capital

The EU biodiversity strategy calls on Member States to map and assess the state of ecosystems and their services<sup>80</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.

Italy started assessing its national ecosystems in 2014. The country recently completed its 'biophysical evaluation', which resulted in a map of Italy's ecosystems. Italy is currently conducting an assessment of its ecosystem services. The second report on the state of natural capital in Italy<sup>81</sup> was published in February 2018. It contained significantly more detailed information on natural capital and ecosystem services.

In particular, the biophysical evaluation of terrestrial ecosystems at the regional and regional level has been improved, also with an updates of the state of conservation of some of them. Moreover, the focus on biophysical values of natural capital stocks in the marine ecoregions emphasized the first results of an experimental project of an environmental accounting system for Italian marine protected areas.

Concerning the pressures on natural capital, habitat fragmentation and land use of natural and semi-natural ecosystems are analysed at national and eco-regional scale, as primary concerns in conservation and functionality of ecosystems. Attention is devoted to the

<sup>73</sup> [Charter of Rome](#).

<sup>74</sup> [Rete Rurale Nazionale 2014](#).

<sup>75</sup> 2018 ERDF Annual Implementation Report (citizens report), Basilicata, p. 6.

<sup>76</sup> EU Horizon 2020 project, [URBAN GreenUP](#).

<sup>77</sup> [lnordestquotidiano.it](#)

<sup>78</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>79</sup> [BISE page for Italy](#)

<sup>80</sup> Ecosystem services are benefits provided by nature such as food, clean water and pollination on which human society depends.

<sup>81</sup> Italian Natural Capital Committee, [2<sup>nd</sup> Report on the state of natural capital in Italy](#), 2017.



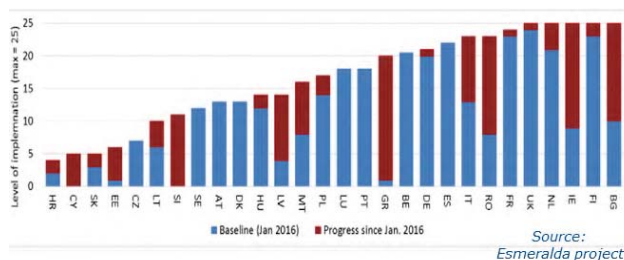
impact of climate change on the forest ecosystems and to forest fires and drought.

The Report also included an exercise to determine an initial framework on biophysical assessment and economic accounting for some ecosystem services in Italy: crop pollination, recreational services, and water purification, carbon sequestration. Moreover, attention was been dedicated to *ex-ante* and *ex-post* evaluations of the impact of public policies on the natural capital.

The report proposes recommendations and policy interventions for the short and medium term. The third report was expected in February 2019, after the drafting of this report.

In September 2018, at the Mapping and Assessment of Ecosystems and their Services (MAES) working group meeting held in Brussels, Italy presented an assessment showing that it had made some progress since January 2016 in its implementation of MAES suggestions (Figure 11). The assessment was part of the ESMERALDA project, which is co-financed by Horizon 2020<sup>82</sup>. The assessment is based on 27 implementation questions and updated every six months.

**Figure 11: Implementation of MAES (September 2018)**



Although the EU ‘business and biodiversity’ platform<sup>83</sup> has not yet launched, the long lasting initiative ‘Ecomondo’ provides a good example of involving private sector in green business. Ecomondo is an annual international event with an innovative format that brings together all sectors of the circular economy in a single platform.

<sup>82</sup> EU project, [ESMERALDA](#).

<sup>83</sup> [The European Business and Biodiversity Campaign](#) aims to promote the business case for biodiversity in the EU Member States through workshops, seminars and across the media.

## Invasive alien species

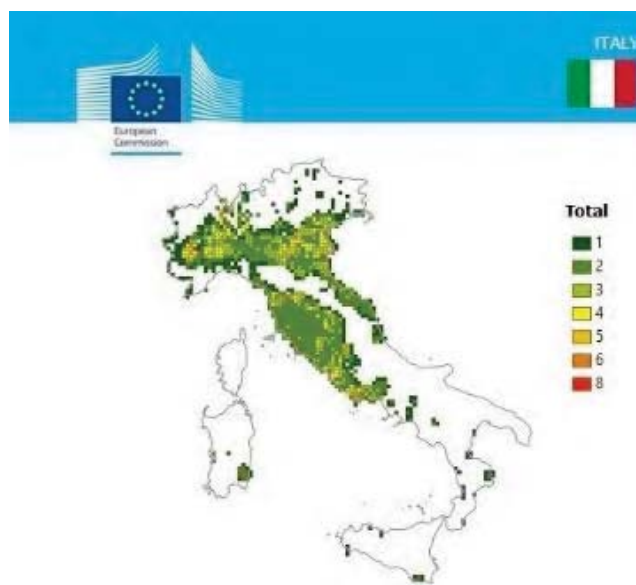
Under the EU biodiversity strategy, the following are to be achieved by 2020:

- (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 Regulation, which entered into force on 1 January 2015.

The report on the baseline distribution of invasive alien species (IAS) (Figure 12), for which Italy has thoroughly reviewed its data, gives an overview of IAS in the EU. This report shows that, out of the 37 species on the first Union list of alien species, 24 have already been observed in Italy. The most widely observed of these species is the coypu (*Myocastor coypus*). Italy is also the only Member State with an invasion of the kudzu vine (*Pueraria lobata*).

**Figure 12: Number of IAS of EU concern, based on available georeferenced information for Italy**<sup>84</sup>



Between the entry into force of the Union list on 14 July 2017 and 18 May 2018, Italy has not notified any new appearances of IAS of EU concern, according to Article 16(2) of the IAS Regulation. Italy is one of the few Member States with a local population of Pallas’s squirrel (*Callosciurus erythraeus*), which may still be eradicated.

Italy has launched a LIFE project called the ‘alien species awareness programme’ (ASAP)<sup>85</sup>. The project will

<sup>84</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, EUR 28596 EN, doi:10.2760/772692.](#)

<sup>85</sup> European Commission, [LIFE ASAP](#).

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increase public awareness, and reduce both the intentional and unintentional spread of IAS (with a particular focus on the sale of pets and ornamental plants).

Italy has notified the Commission of its competent authorities responsible for implementing the IAS Regulation as required by Article 24(2) of the IAS Regulation. The national act<sup>86</sup> providing a detailed framework of the roles and responsibilities in the Italian system and the relevant provisions on penalties applicable to infringements as required by Article 30(4) of the IAS Regulation entered into force in February 2018.

Raising the awareness of the public may help in dealing with this issue. A worrying trend is that a 2018 opinion poll shows that 70 % of people in Lombardy have never heard of the problem of invasive alien species<sup>87</sup>. The Ministry of Environment and Italian Institute for Environmental Protection and Research (ISPRA) have carried out several communication campaigns, and have implemented one dedicated website aimed at informing the public on the different aspects of invasive species<sup>88</sup>.

### Soil protection

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

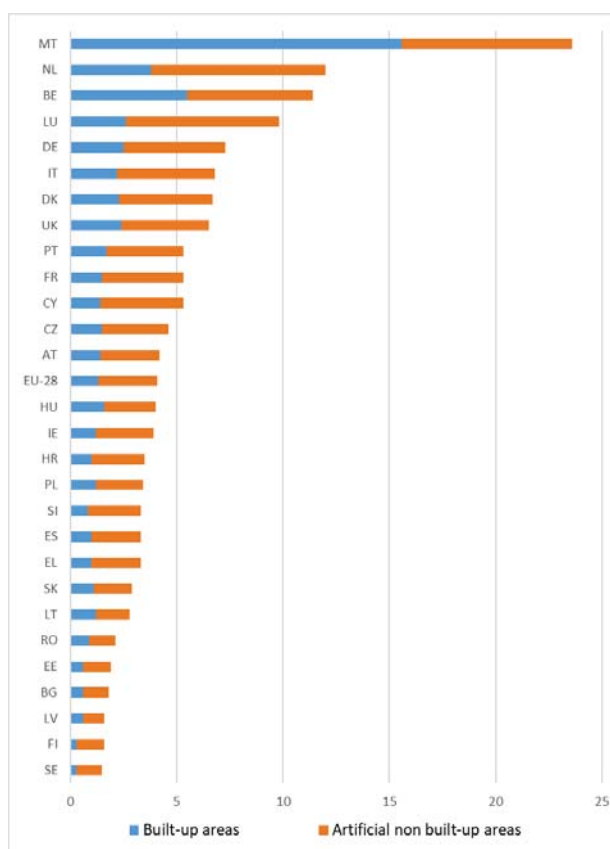
Soil is a finite and extremely fragile resource and increasingly degrading in the EU.

The percentage of artificial land<sup>89</sup> in Italy (Figure 13) can be seen as a measure of the relative pressure on nature and biodiversity, as well as the environmental pressure on people living in urbanised areas. A similar measure is population density. When the share in both is high, it can be expected that the challenges to protect natural capital and to ensure well-being of people are also high, and adequate implementation of the relevant EU policy and law is a priority.

Italy ranks higher than the EU average as regards artificial land coverage with around 7 % of artificial land (EU-28 average: 4.1 %). The population density is 205.86 km<sup>2</sup>, which is also above the EU average of 118<sup>90</sup>.

The main threats to soil in Italy are soil sealing, land take and diffuse pollution to the soil. Diffuse pollution to soil is closely linked to water-quality issues (in particular nitrates in the Po valley). Some parts of the country are also prone to landslides and flooding, both of which can damage soil. Isolated industrial locations are suffering from soil contamination.

**Figure 13: Proportion of artificial land cover, 2015**<sup>91</sup>



Contamination can severely reduce soil quality and threaten human health or the environment. A recent report of the European Commission<sup>92</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. Italy has registered 22 100 sites where potentially polluting activities have

<sup>86</sup> D.Lgs. 230/2017

<sup>87</sup> [Carabinieri Forestali: gli italiani non conoscono la biodiversità.](#)

<sup>88</sup> [Invasive Species Italy](#)

<sup>89</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).

<sup>90</sup> Eurostat, [Population density by NUTS 3 region.](#)

<sup>91</sup> Eurostat, [Land covered by artificial surfaces by NUTS 2 regions.](#)

<sup>92</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"

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taken or are taking place, and already has remediated or applied aftercare measures on 2 904 sites.

As mentioned in the 2017 EIR, many soil protection measures in Italy are included in policies that are not directly connected to the protection of soil. In 2016, the Italian parliament discussed a decree-law on containing the loss of land and re-using soil that has been built on. Ratifying this draft decree-law is also a priority for the current administration. The 2017 EIR mentioned a number of contaminated industrial sites of national interest which require priority remediation. These sites include Piombino and Taranto.

According to the RUSLE2015 model <sup>93</sup>, Italy has an average soil loss rate by water of 8.46 tonnes per hectare per year ( $t\ ha^{-a}\ yr^{-y}$ ) compared to a European mean average of 2.46  $t\ ha^{-a}\ yr^{-y}$ , which indicates soil erosion is high on average.

Soil organic matter plays an important role in the carbon cycle and in climate change. Soils are the second largest carbon sink in the world after the oceans. Italy has an average concentration of soil organic carbon of 20.9 g/kg (across all land cover types) compared to a European average 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>94</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.

The Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) greatly helps Italy to achieve the goal of the EU's Marine Strategy Framework Directive (MSFD). These marine strategies comprise different steps to be developed and implemented over six-year cycles. The latest step in the MSFD required Member States to set up and report to the Commission their programme of measures by 31 March 2016. The Commission assessed whether the

Italian measures were sufficient for the country to reach good environmental status (GES)<sup>95</sup>.

Italy's programme of measures substantially addresses most of the relevant pressures on its marine environment. Italy also reports on a wide range of existing legal acts, conventions, action plans and commitments that it has made at the EU, regional, subregional and national level as relevant measures for the MSFD. In addition, Italy reports on 'new' measures, specifically designed for the MSFDs. These 'new' measures aim to tackle the pressures directly or to tackle them indirectly by focusing on communication, training, capacity building and research activities. For example, for biodiversity in the bird population, Italy reports on an existing measure in its action plan to reduce incidental catches of seabirds in fishing gear. This measure is complemented by an indirect new measure on training and awareness-raising measures for fishermen to reduce their by-catch of seabirds.



Italy reported its measures in 2017. However, Italy has not reported whether GES is expected to be achieved by 2020. Overall, the Italian programme of measures substantially addresses the requirements of the MSFD. Italy has informed the Commission that it is now finalising the update of the environmental assessment of its marine waters, good environmental status and targets. These updates were due to have been sent to the Commission by 15 October 2018.

Italy has signed in 2016 a Cooperation Agreement with UNEP/MAP<sup>96</sup> to develop and implement, also through transnational cooperation, important actions in the field of: marine litter, marine spatial planning, integrated coastal zone management and marine protected areas. The triennial Programme of Works for the implementation of the Agreement is worth of more than EUR 2, 000,000.

Seven new coastal areas of Italy have been identified as

<sup>93</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>94</sup> European Union, [Marine Strategy Framework Directive 2008/56/EC](#)

<sup>95</sup> [COM/2018/562](#) and [SWD\(2018\) 393](#).

<sup>96</sup> United Nations Environment Programme/Mediterranean Action Plan.



at risk of flooding due to sea-level rise caused by climate change, according to ENEA, the Italian government's research and development agency<sup>97</sup>.

### 2019 priority actions

- Complete information on measures to address pressures, and on whether GES will be achieved by 2020.
- Provide more information about measures, establish more measures that have a direct impact on the pressures and quantify the expected level of reduction of the pressure as a result of these measures.
- Ensure regional cooperation with Member States sharing the same marine (sub)region to address predominant pressures.
- Ensure reporting of the different elements under the Marine Strategy Framework Directive by the set deadline.

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<sup>97</sup> [ENEA, Press Release, 5.7.2018](#)

### 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 suite of air quality legislation<sup>98</sup>, which establishes health-based standards and objectives for a number of air pollutants.



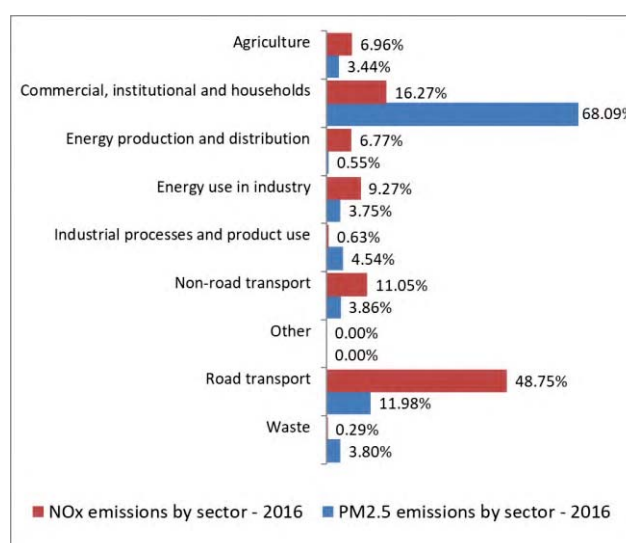
Emissions of several air pollutants have decreased significantly in Italy<sup>99</sup>. The emission reductions between 1990-2014 mentioned in the previous EIR Reports, continued between 2014-2016 with emissions of sulphur oxides (SO<sub>x</sub>) falling by 11.5 %, emissions of nitrogen oxides (NO<sub>x</sub>) by 5.4 %, and emissions of volatile organic compounds (NMVOCs) by 2.4 %. Meanwhile emissions of fine particulate matter (PM<sub>2.5</sub>) have increased by 3.9% and emissions of ammonia (NH<sub>3</sub>) by 4.3 % between 2014 and 2016. Nevertheless, the emission levels for all these pollutants are within the currently applicable national emission ceilings<sup>100</sup> (see also Figure 14 on the total PM<sub>2.5</sub> and NO<sub>x</sub> emissions per sector).

Despite the emission reductions since 1990, additional efforts are needed to meet the emission reduction commitments (compared to 2005 emission levels) laid

down in the new National Emissions Ceilings Directive<sup>101</sup> for the period 2020 to 2029, and for any year from 2030 on.

Air quality in Italy continues to give cause for severe concern. For the year 2015, the European Environment Agency estimated that about 60 600 premature deaths in Italy were attributable to fine particulate matter concentrations<sup>102</sup>, 3 200 premature deaths were attributable to ozone concentrations<sup>103</sup>, and 20 500 premature deaths were attributable to nitrogen dioxide concentrations<sup>104 105</sup>.

Figure 14: PM<sub>2.5</sub> and NO<sub>x</sub> emissions by sector in Italy<sup>106</sup>



For 2017<sup>107</sup>, exceedances above the EU air quality standards were registered for concentrations of nitrogen dioxide (NO<sub>2</sub>) in 25 air quality zones out of 120 (including Torino, Milano and Firenze). For particulate matter (PM<sub>10</sub>), exceedances above the EU air quality standards were also registered in 31 air quality zones (including several locations in the Po Valley). In addition, 13 air quality zones have indicated exceedances for fine particulate matter (PM<sub>2.5</sub>, including several locations in

<sup>98</sup> European Commission, 2016. [Air Quality Standards](#)

<sup>99</sup> See [EIONET Central Data Repository](#) and [Air pollutant emissions data viewer \(NEC Directive\)](#).

<sup>100</sup> The current national emission ceilings have been mandatory since 2010 ([Directive 2001/81/EC](#)); revised ceilings for 2020 and 2030 have been set by [Directive \(EU\) 2016/2284](#) on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC.

<sup>101</sup> [Directive 2016/2284/EU](#).

<sup>102</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> refers to particles with a diameter of 10 micrometres or less. PM<sub>2.5</sub> refers to particles with a diameter of 2.5 micrometres or less. PM is emitted from many human sources, including combustion.

<sup>103</sup> Low-level ozone is produced by photochemical action on pollution.

<sup>104</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>105</sup> EEA, [Air Quality in Europe – 2018 Report](#), p. 64. Please see details in this report as regards the underpinning methodology.

<sup>106</sup> 2016 NECD data submitted by Member States to the EEA.

<sup>107</sup> [EIONET Central Data Repository](#).

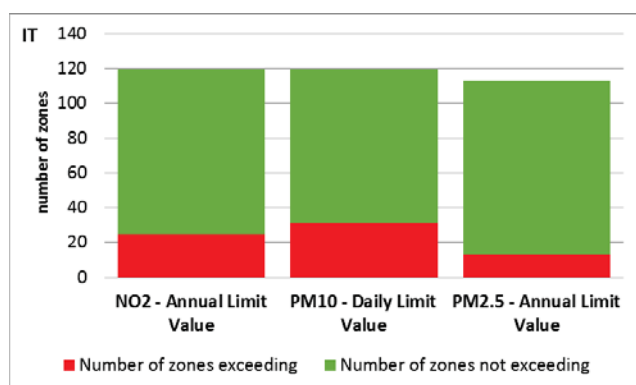
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the Po Valley). Finally, target values for ozone (O<sub>3</sub>) and for benzo(a)pyrene in PM<sub>10</sub> were also exceeded.

See also Figure 15 on the number of air quality zones in exceedance for NO<sub>2</sub>, PM<sub>2.5</sub>, and PM<sub>10</sub>.

Persistent breaches of air quality requirements for PM<sub>10</sub> and NO<sub>2</sub> have severe negative effects on human health and the environment. All such breaches are followed up by the European Commission through infringement procedures covering all the Member States concerned, including Italy. For exceedances of PM<sub>10</sub>, the Commission has decided to refer Italy to the CJEU (see COM (2018) 330). The aim in referring Italy to the CJEU is to ensure that appropriate measures are put in place to bring all zones into compliance.

**Figure 15: Air quality zones exceeding EU air quality standards in 2017**<sup>108</sup>



According to the European Court of Auditors (ECA)<sup>109</sup>, EU action to protect human health from air pollution has not delivered its expected impact. There is a risk that air pollution is being underestimated in some instances because it may not always be monitored in the right places. Member States are required to report real-time air quality data to the Commission; the ECA noted that Italy only partly reported up to date data. On the other hand, Milan was one of the cities examined and good practices were identified in terms of spatial maps used for modelling and downloadable data for analysis.

In 2013 and 2017, the Ministry of Environment entered into agreements with four Italian regions to reduce smog in the Po valley basin<sup>110</sup>. Similar agreements are planned for other Italian regions, including Campania, Lazio, Umbria, Sicily and Tuscany<sup>111</sup>. An agreement was signed for reducing air pollution in Rome, surrounding municipalities and the Valle del Sacco in November

2018<sup>112</sup>

Biomass is challenging issue. Like diesel, biomass must be managed, and eight actions are now planned to manage biomass, including agreements between local regions and the central government<sup>113</sup>.

Italy has created areas with limited access for cars ('zona a traffico limitato') to reduce motor traffic and air pollution in historic urban centres.

Initiatives have been launched to end the use of diesel in cities, for example in Piedmont<sup>114</sup>.

An example of best practice is the LIFE integrated project PREPAIR<sup>115</sup>, which includes all regions in the Po valley basin and Slovenia. The project will focus on agriculture, biomass, transport, energy efficiency and air quality.

Environmental experts from Italy participated in TAIEX workshops on Monitoring air pollution impacts on ecosystems, 4 – 6 April 2018 in Lisbon and on the effectiveness of Air Quality Plans, 10 – 11 September 2018 in Graz.

### 2019 priority actions

- Take actions and specific measures under the forthcoming national air pollution control programme as well as National Energy and Climate Plan to reduce emissions from the main emission sources and meet all air quality standards.
- Accelerate reductions in nitrogen oxide (NO<sub>x</sub>) emissions and nitrogen dioxide (NO<sub>2</sub>) concentrations by further reducing transport emissions, in particular in urban areas. It may also require proportionate and targeted restrictions on vehicle access to urban areas and/or fiscal incentives.
- Accelerate reductions in particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>) emissions and concentrations by reducing emissions from energy production and from heat generation using solid fuels. It will also require the promotion of efficient and clean district heating.
- Upgrade and improve the air quality monitoring network, and ensure timely reporting of air quality data.

<sup>108</sup> EEA, [EIONET Central Data Repository](#). Data reflects the reporting situation as of 26 November 2018.

<sup>109</sup> European Court of Auditors, Special report no 23/2018, [Air pollution: Our health still insufficiently protected](#), p.41.

<sup>110</sup> Ministry of Environment — [Press Release](#), 9.6.2017.

<sup>111</sup> Ministry of Environment, [Speech of Minister Costa](#), 5.7.2018.

<sup>112</sup> Ministry of Environment, [Press Release](#), 15.11.2018.

<sup>113</sup> CINSEDO, [EIR air seminar](#) 2018.

<sup>114</sup> Legambiente, [Piemonte: Città libere dai diesel entro il 2025](#).

<sup>115</sup> [PREPAIR](#); CINSEDO, [EIR air seminar](#) 2018.

## 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>116</sup> (IED).

Industrial facilities that engage in certain types of activities regulated under the Industrial Emissions Directive (IED) are referred to as 'IED installations'. The below overview of industrial activities regulated by the IED is based on the 'industrial emissions policy country profiles' project<sup>117</sup>.

**Figure 16: Number of IED industrial installations by sector, Italy (2015)**<sup>118</sup>



In Italy, around 6100 industrial installations are required to have a permit based on Cape II the IED. The industrial sectors in Italy with the most IED installations in 2015 were those engaged in the intensive rearing of poultry or pigs (30 % of total IED installations), followed by the waste-management sector (21 % of IED installations) and

<sup>116</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>117</sup> European Commission, [Industrial emissions policy country profile – Italy](#).

<sup>118</sup> European Commission, [Industrial emissions policy country profile – Italy](#).

the surface-treatment industrial sector (12 % of IED installations)<sup>119</sup>. This breakdown is shown in Figure 16.

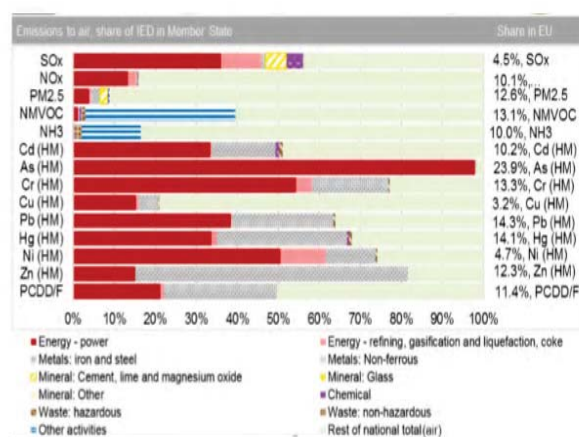
The breakdown of the industrial sectors that place the largest burden on the Italian environment through emissions to the air is shown in Figure 17.

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

The development of Best Available Techniques (BAT) Reference Documents (BREFs) and BAT Conclusions through the exchange of information involving Member States, Industrial associations, NGOs and the Commission ensures a good collaboration with stakeholders and enables a better implementation of IED.

The Commission relies on and welcomes the efforts of national competent authorities to implement the legally binding BAT conclusions and associated BAT emission levels in environmental permits, resulting in considerable and continuous reduction of pollution.

**Figure 17: Emissions to air from IED sectors and all other national air emissions, Italy (2015)**<sup>120</sup>



By way of example, the implementation of the recently adopted BAT associated emission levels for Large Combustion Plants will -on average and depending on the situation of individual plants- reduce emissions of sulphur dioxide with 25% to 81%, nitrogen oxide with 8% to 56%, dust with 31% to 78% and mercury with 19% to 71% in the EU as a whole.

In Italy, environmental burdens to water are mostly caused by the sectors of energy-power, energy-refining,

<sup>119</sup> European Commission, [Industrial emissions policy country profile – Italy](#), 2018.

<sup>120</sup> European Environmental Agency, [EPTR inventories under the CLRTAP](#).

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chemicals, metal production, waste management and ‘other activities’. The environmental burdens from hazardous waste generation are mostly caused by the sectors of waste management, metal production and chemicals. And the environmental burdens from non-hazardous waste generation are mostly caused by the waste generation and ‘other activities’ sectors.

The Commission has in particular welcomed the good cooperation with the administration to efficiently solve issues due to late implementation of the BAT conclusion prohibiting the use of the mercury cell technique by chlor-alkali plants by 11/12/2017.

The challenge identified were emissions to the air from the ILVA steel mill.

### 2019 priority actions

- Review of permits to comply with new adopted BAT conclusions.
- Strengthen control and enforcement to ensure compliance with BAT conclusions.
- Addressing emissions to air from the ILVA steel mill.

### Noise

The Environmental Noise Directive <sup>121</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>122</sup>.

A limited set of data from 2011<sup>123</sup> indicates that environmental noise causes at least around 1 500 premature deaths and 6 000 hospital admissions per year in Italy<sup>124</sup>. In addition, noise disturbs the sleep of another 1 800 000 people. Implementation of the Environmental Noise Directive is delayed in Italy and an infringement procedure is still open for noise mapping of 2012 and action plans of 2013. In response to that violation, Italy significantly advanced the strategic noise maps of 2012, and advanced in the adoption of action plans of the agglomerations, major roads, major railways and major airports for 2013.

These instruments, adopted after a public consultation

had been carried out, should include the measures to keep noise low or reduce it. The city of Orbassano is an example of best practice in noise management. Its efforts have made it a candidate city for the 2017 Green Leaf award, which is given to cities that have worked to improve their environment. Orbassano created an acoustic zoning plan, which sets out noise limit values during the day and night for six different land-use areas<sup>125</sup>. Specific noise strategies were also developed for each part of the municipality. Such acoustic zoning is a requirement of Italian rather than EU law. Florence is another example of best practice – it has used LIFE funding to promote acoustic mitigation<sup>126</sup>. Rimini has planned low-noise roads in the centre in its 2018-2023 Action Plan on Management of Environmental Noise<sup>127</sup>.

### 2019 priority actions

- Complete missing noise action plans for 2013.
- Complete the delivery of strategic noise maps for 2017.
- Deliver action plans for 2019.

### 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>128</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.

<sup>121</sup> [Directive 2002/49/EC](#).

<sup>122</sup> WHO/JRC, 2011, Burden of disease from environmental noise, Fritschi, L., Brown, A.L., Kim, R., Schwela, D., Kephelopoulos, S. (eds), [World Health Organisation, Regional Office for Europe](#), Copenhagen, Denmark.

<sup>123</sup> European Environment Agency, [Noise Fact Sheets 2017](#).

<sup>124</sup> The Noise Directive requires Member States to prepare and publish, every 5 years, noise maps and noise action plans for agglomerations with more than 100 000 inhabitants, and for major roads, railways and airports.

<sup>125</sup> European Commission, [Good Practice Report European Green Leaf 2017](#), p. 30.

<sup>126</sup> European Commission, [EGCA 2019 Good Practice Factsheets](#).

<sup>127</sup> [Rimini News](#)

<sup>128</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 \(2007/60/EC\)](#).



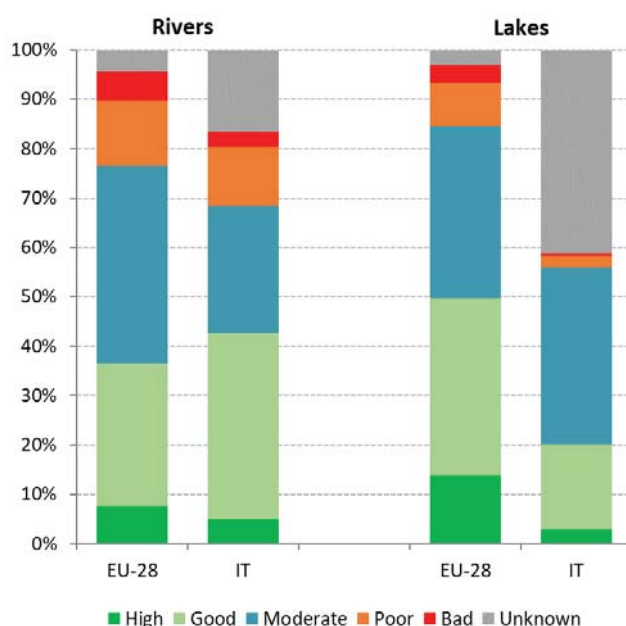
### Water Framework Directive

Italy has adopted and reported the second generation of RBMPs under the Water Framework Directive and the European Commission has assessed the status and the development since the adoption of the first RBMPs, including Suggested Actions in the EIR report 2017.

The **most significant pressures** on surface water bodies in Italy are diffuse pollution from agricultural (37%) and urban waste water (20%). For groundwater bodies the most significant pressures are diffuse pollution from agriculture (30%) and then abstraction or flow diversion (19%).

Organic pollution, chemical pollution and nutrient pollution have the **most significant impacts** on surface water bodies (25-26%). For groundwaters, the most significant impacts are chemical pollution (34%), nutrient pollution (29%), and abstraction exceeding available groundwater resource (26%).

**Figure 18: Ecological status or potential of surface water bodies in Italy<sup>129</sup>**



**Ecological status** has been classified for the large majority of water bodies as illustrated in Figure 18, in contrast to the first RBMPs, where a very large proportion of water bodies were unclassified. There was an increase in the proportion of surface water bodies at good or better ecological status/potential from 25% in the first RBMPs to 42% in the second.

Ecological status/potential is less than good for 65% of lakes, 50% of rivers and 95% of transitional waters. This

<sup>129</sup> EEA, [WISE dashboard](#).

shows that Italy has a long way to go to achieve the good status/potential objectives set in the Water Framework Directive.

Between the first and second RBMPs there was a large increase in the proportion of surface water bodies with **good chemical status** from 18% to 72% and an increase in the proportion failing to achieve good status from 4.8% to 8.5%. Importantly, the proportion with unknown status has reduced significantly from 78% to 20%; this reflects the greater spatial extent of monitoring.

The total number of groundwater bodies failing **good quantitative status** increased significantly (by 15%) from the first to the second RBMPs. This increase is also reflected in terms of groundwater body area failing good status. One reason for this increase is that information from Sicily was not available for the first RBMPs.

Most significant pressures are identified in the RBMPs and addressed by measures (key type of measures) – except for Sicily - but there is no clear information regarding scope, timing and funding of measures in the second RBMPs and not all measures from the first Programme of Measure are completed (notably ‘governance’ was indicated as an obstacle for the implementation by Italy).

### Drinking Water Directive

On **drinking water**, no new data has been available since the 2017 EIR<sup>130</sup>. However, the Commission is aware that individual areas in Italy still have problems with their drinking water (such as the arsenic and fluoride in drinking water in Lazio).

Leakage of drinking water can also be a problem. The central and southern cities have a higher level of drinking water leakage than the national average. The highest losses in 2012 were in Catania (56.9 % leakage rate) and Cagliari (58.5 % leakage rate)<sup>131</sup>. The national leakage rate in Italy is 39 %<sup>132</sup>. A national plan has been drawn up to upgrade reservoirs and aqueducts. Funding from the EFSI is being used to improve the water supply in Milan<sup>133</sup> and Ancona<sup>134</sup>.

### Bathing Water Directive

Figure 19 shows that in 2017, 89.9 % of the 5 531 Italian **bathing waters** were of excellent quality, 5.2 % were of good quality and 1.9 % were of sufficient quality (90.8 %, 4.9 % and 1.5 % respectively in 2016). In 2017, 1.4% of

<sup>130</sup> Compliance with the Drinking Water Directive microbiological and chemical parameters as last reported was very high.

<sup>131</sup> ISTAT [UrBes](#) 2015, p. 30.

<sup>132</sup> European Commission-OECD, draft Italian fiche, Assessing member states’ investment needs and financing capacities for water supply, sanitation and flood protection, 2018.

<sup>133</sup> EFSI, [MM water infrastructure upgrade](#).

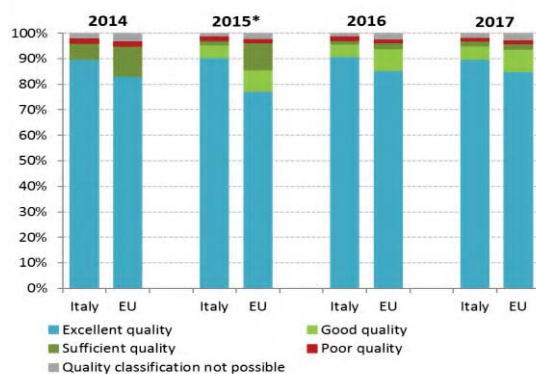
<sup>134</sup> EFSI, [multiservizi settore idrico Ancona](#).



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Italian bathing waters were of poor quality<sup>135</sup>. Detailed information on Italian bathing waters is available on a national portal<sup>136</sup> and via an interactive map viewer provided by the European Environment Agency<sup>137</sup>.

**Figure 19: Bathing water quality 2014–2017**<sup>138</sup>



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

### Urban Waste Water Treatment Directive

In **urban waste-water treatment**, Italy is lagging behind in compliance with the Urban Waste Water Treatment Directive (UWWTD). This is a cause for concern. Overall in Italy in 2014, 93.8 % of waste water is collected, and 71.9 % of the load collected is subjected to secondary treatment<sup>139</sup>.

A total of 976 agglomerations have been found to be in breach affecting a population equivalent of over 28 million people. There has been an overall improvement in compliance of around 15% nationally, but in the southern regions this varies from between 25% in Puglia to 3% in Calabria.

Italy appointed an emergency commissioner in 2017 to deal with the infringements. Furthermore, the Calabria region, which has one of the highest levels of infringement, has now set up a database containing all the agglomerations subject to legal procedures for their infringements. This has helped to increase transparency<sup>140</sup>. The CJEU ruled against Italy on 31 May 2018 for its non-compliance with the UWWTD, and ordered the country to pay fines.

The investment needs estimated in 2014 by the Italian authorities to ensure adequate urban waste water collection & treatment i.e. compliance with the UWWTD

was EUR 3000 million. Italy estimated that about 3000 projects on collecting systems and treatment plants must be developed to comply with the Directive.<sup>141</sup>

However, a recent study of the OECD<sup>142</sup> estimates even greater investment needs<sup>143</sup> for both water supply and wastewater treatment at the level of approximately EUR 20,155 million for Italy by 2030<sup>144</sup>.

Overall, according to the latest data available, in Italy, 99.2 % of waste water is collected.

According to the last Implementation Report based on 2014 data, in Italy the waste water situation was the following:

- for secondary treatment: 11.1 % of the waste water load connected to collecting systems was not adequately treated,
- for treatment more stringent than secondary: 12.9 % of the waste water load connected to collecting systems (in which this treatment is required by the Directive), was not adequately treated.<sup>145</sup>

In Italy, integrated water services (public water supply, waste-water treatment and sewerage) are regulated by an independent authority called ARERA<sup>146</sup>, which approves the tariff methodologies and tariff plans of water utilities. Tariff calculation is based both on *ex-post* reimbursement criteria and on a revenue cap to promote efficiency. The tariffs are drawn up in a transparent fashion. Where utilities comply with the regulatory framework, the Water Framework Directive allows them to fully recover their costs through the revenues they make. This increased legal and regulatory certainty attracts commercial investors. Since 2014, there has been steady growth in investment in the Italian water sector (investment grew by 55 % between 2012 and 2015).

<sup>135</sup> European Environment Agency, 2017. [European bathing water quality in 2016](#), p. 17.

<sup>136</sup> Ministry of Health, [Il Portale Acque](#).

<sup>137</sup> EEA, [State of Bathing waters](#).

<sup>138</sup> EEA, [European bathing water quality in 2017](#), 2018, p. 21.

<sup>139</sup> European Commission, Ninth Report on the Implementation Status and the Programmes for Implementation of the Urban Waste Water Treatment Directive ([COM\(2017\) 749](#)) and Commission Staff Working Document accompanying the report ([SWD\(2017\) 445](#)).

<sup>140</sup> Regione Calabria, [database](#).

<sup>141</sup> European Commission, Ninth Report on the Implementation Status and the Programmes for Implementation of the Urban Waste Water Treatment Directive ([COM\(2017\)749](#)) and Commission Staff Working Document accompanying the report ([SWD\(2017\)445](#)).

<sup>142</sup> OECD, Water-related investment needs and financing capabilities in EU member states, preliminary results - *Report not published to date*.

<sup>143</sup> Preliminary projection of needs for water supply and sanitation assuming 1) increased population growth, 2) full compliance with the Urban Waste Water Treatment Directive, 3) improvements of the water supply network, 4) full compliance with the new Drinking Water Directive. Sources of data for the OECD study include information from all Member States which was available and comparable.

<sup>144</sup> The figure is for compliance with the proposal for a new drinking water directive — combined with costs for reaching higher efficiency levels, connecting further parts of the population, and becoming compliant with the existing UWWTD

<sup>145</sup> Distance to target rates from European Commission, Ninth Report on the Implementation Status and the Programmes for Implementation of the Urban Waste Water Treatment Directive ([COM\(2017\)749](#)) and Commission Staff Working Document accompanying the report ([SWD\(2017\)445](#)).

<sup>146</sup> [ARERA](#) former AEEGSI, mentioned in the 2017 EIR.

## Environmental Implementation Review 2019 – Italy

As mentioned in the 2017 EIR, a new tariff mechanism issued in 2013 takes into consideration the initial operating circumstances of each water-services operator. The mechanism then provides incentives for the operator to invest in its operating activities and make them more efficient. This incentive is equivalent to EUR 33 per capita per year, and helps to fill the infrastructure gap in sewerage and waste-water treatment<sup>147</sup>. Over 80 % of water investments are now financed through tariffs that allow utilities to fully recover their costs rather than through the public budget.

Over the 2016-2019 period, projected investments financed through tariffs amount to EUR 7.8 billion, or EUR 9.9 billion in total when public funds are included<sup>148</sup>.

Recent changes to the water supply and sanitation markets have made water more affordable for people on low incomes. A range of new technical and infrastructural quality standards have also been introduced by the government. Future investment needs are forecast to reach these new objectives<sup>149</sup>.

Despite being the major water user in the country, the agricultural sector pays lower water prices than domestic or industrial users, providing little incentive for efficient water use.

The ERDF 2014-2020 allocations for UWWT is EUR 654.9 million and for drinking water is EUR 883.8 million. The Puglia region is efficiently spending the ERDF for urban wastewater with 236,000 additional population already connected in 2017 compared to its target of 320,000 in 2023<sup>150</sup>; however it appears to be an exception.

In Campania, over EUR 800 million has been allocated by the ERDF for water 2014-20. European Investment Bank (EIB) loans are also being used to upgrade and extend urban waste-water treatment, for example in Sardinia in 2018.

As mentioned in the 2017 EIR, water scarcity and drought risks exist in Italy. National guidelines were adopted in February 2017 on abstraction and setting up environmental flows<sup>151</sup>. In order to maximise water resources, the operators of aqueducts are reusing urban wastewater for agricultural, industrial and anti-incendiary purposes (e.g. Puglia with the ERDF and under EFSI<sup>152</sup>, Sardinia and Veneto)<sup>153</sup>.

<sup>147</sup> ARERA 2016, Annual Report.

<sup>148</sup> ARERA 2017, Annual Report.

<sup>149</sup> European Commission-OECD, draft Italy fiche, Assessing member states' investment needs and financing capacities for water supply, sanitation and flood protection, 2018.

<sup>150</sup> 2018 ERDF Annual Implementation Report, Puglia, p.69

<sup>151</sup> [Environmental flows](#)

<sup>152</sup> European Commission, [EFSI](#)

<sup>153</sup> CINSEDO water seminar, 5.10.2018; see also Reconstruction of the Favara di Burgio aqueduct, draft report November 2018, ex-post

### Nitrates Directive

The Commission's assessment of data on the implementation of the **Nitrates** Directive for 2012-2015 shows that there are monitoring stations with an average annual nitrate concentration equal or exceeding 50 mg/l in groundwater outside Nitrates Vulnerable Zones (NVZs) in several regions except Valle d'Aosta and Alto Adige. Lombardia and Piemonte received derogations in 2015 until 31 December 2019<sup>154</sup>.

### 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. Italy has adopted and reported its first FRMPs 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, Italy's FRMPs do not yet include measures that are clearly prioritised and linked to the objectives set and an as complete as possible estimation of the cost of measures with identification of specific sources of funding. In addition, there is scope for reinforcing climate change considerations in its FRMPs including coordination with the NAS.

In 2016, there were 31 flood incidents registered all over the national territory<sup>155</sup>. According to data collected by ISPRA the damage caused by floods (and landslides) were at least EUR 1.96 billion (2016) & EUR 1.31 billion (2017). In November 2018 Italy was hit again by floods and landslides with EUR 6 million made available from all sources<sup>156</sup>.

The 2017 EIR described in detail the national operational plan for the mitigation of hydrogeological risk in the period 2015-2020. In March 2017, EUR 2 billion was put aside within the plan for the mitigation of hydrogeological risk through 500 projects.<sup>157</sup>

The ERDF has co-financed control of **flood** risks in

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evaluation of major projects supported by the ERDF and Cohesion Fund between 2000 and 2013.

<sup>154</sup> Commission Implementing [Decision No. 1040/2016/EU](#) of 24 June 2016 on granting a derogation requested by Italian Republic with regard to the Regions of Lombardia and Piemonte pursuant to Council Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources.

<sup>155</sup> ISPRA, [Annuario dei dati ambientali 2017](#), table 15.8: Elenco delle principali alluvioni avvenute in Italia nel 2016, p.60, Chapter 15 Pericolosità geologiche.

<sup>156</sup> Ministry of Environment, [Press Release](#), 30.10.2018

<sup>157</sup> ERDF Annual Implementation Report (citizens report), Liguria, p. 7.

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Veneto, reducing flood risk by 75% in Vicenza<sup>158</sup>. The ERDF has also provided EUR 1 million for the URAMET project to provide harmonised meteorological data from violent storms in French and Italian coastal regions caused by climate change<sup>159</sup>. Italy is using funding from the ERDF and EAFRD to co-finance nature-based flood defences<sup>160</sup>. An example of this green infrastructure is the Payment of Ecosystem Services (PES) scheme (the LIFE supported 'Bosco Limite' project) in the province of Padua<sup>161</sup>.

There is a EUR 800 million loan from the EIB to mitigate hydrogeological risks. The EIB is also financing a specific loan to deal with flood risk upriver from Florence, which was hit by a severe flood in 1966.

### 2019 priority actions

- Take steps to harmonise different regional approaches, in particular for the definition of the significance of pressures in relation to of the Water Framework Directive.
- Reinforce metering for all abstractions, and review abstraction permits systems, especially in areas with water scarcity problems.
- Designate missing nitrate vulnerable zones.
- Take steps to reinforce climate change considerations in its Flood Risk Management Plans including coordination with the National Climate Change Adaptation Strategy.

### Chemicals

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

The EU's chemicals legislation<sup>162</sup> provides baseline protection for human health and the environment and ensures stability and predictability for economic operators within the internal market.

The 2016 European Chemicals Agency (ECHA) report on the operation of REACH and CLP<sup>163</sup> showed that enforcement activities are still evolving. In the Forum for Exchange of Information on Enforcement, coordinated enforcement projects<sup>164</sup> have shown that the effectiveness of the enforcement activities can still be improved, in particular regarding registration obligations and Safety Data Sheets where a relatively high level of non-compliance has been found.

Whilst improving, there is room for further improvement of national enforcement activities as regards harmonisation throughout the Union, including controls on imported goods. It is also clear that enforcement is still weak in some Member States in particular with respect to control of imports and supply chain obligations. The architecture of enforcement capabilities continues to be complex in most EU countries. The enforcement projects also revealed some differences among Member States (e.g. some tend to systematically report higher compliance than the EU average and others lower).

A 2015 Commission study highlighted already the importance of harmonisation in the implementation of REACH at Member State level, in terms of market surveillance and enforcement, as a critical success factor in the operation of a harmonised single market<sup>165</sup>.

In March 2018, the Commission published an evaluation of REACH<sup>166</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.

The Italian Competent Authority for REACH is the Ministry of Health. The national Inter-Ministerial Decree 22 November 2007, O.J. n.12 of 15 January 2008 establishes the cooperation between the Competent Authority and other administrations (Ministry of Environment, Ministry of Economic Development,

<sup>158</sup> European Commission, [Panorama](#), summer 2018, no.65, p.60.

<sup>159</sup> 2018 ERDF Annual Implementation Report (citizens report), FR-IT (Alcotra), p. 7.

<sup>160</sup> Secondary data synthesised in European Commission-OECD Italian fiche, Assessing member states' investment needs and financing capacities for water supply, sanitation and flood protection, 2018.

<sup>161</sup> [Bosco Limite](#).

<sup>162</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>163</sup> European Chemicals Agency, [Report on the Operation of REACH and CLP 2016](#).

<sup>164</sup> ECHA, On the basis of the projects [REF-1](#), [REF-2](#) and [REF-3](#).

<sup>165</sup> European Commission. (2015). Monitoring the Impacts of REACH on Innovation, Competitiveness and SMEs. Brussels: European Commission

<sup>166</sup> [COM\(2018\) 116 final](#): Commission General Report on the operation of REACH and review of certain elements. Conclusions and Actions. Brussels, 5.3.2018.

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National Institute of Health, National Institute for Environmental Protection and Research and Regions)<sup>167</sup>.

Italy is one of the main producers of chemicals in Europe. The Italian chemical industry is concentrated in the north of the country, close to European markets and local customer companies. SMEs play a very significant role in many European countries, but their presence is particularly significant in Italy, where they account for 39 % of the total value of chemicals production<sup>168</sup>. Furthermore, a high number of micro-firms (smaller than SMEs) are producing chemicals in Italy, higher than any other Member State<sup>169</sup>.

Pesticides have been found in two thirds of the Italian surface-water samples investigated by ISPRA, and the problem is particularly severe in the north-east of Italy<sup>170</sup>. The chemicals most present in surface waters were glyphosate and its metabolite AMPA. The Environment Ministry has announced a reexamination of discharge limits for polyfluoroalkyl substances (PFAS) and other chemicals<sup>171</sup>; following an emergency in 2017 the Veneto region used the aqueduct system to reduce concentrations in the worst hit areas<sup>172</sup>.

Italy's technical coordination committee (CTC) is an example of best practice in national-level governance of the REACH Regulation. The CTC<sup>173</sup> gathers relevant branches of the public administration to agree a common position at both the national and EU level. To share this governance experience, a website<sup>174</sup> has also been set up, allowing a continuous dialogue to take place among all relevant stakeholders.

Italy is using the Commission's Enterprise Europe Network to improve awareness of companies of their REACH roles and the obligations, a particular challenge considering the high number of micro and SMEs in the chemical sector<sup>175</sup>.

Italy has undertaken a variety of actions to promote the substitution of hazardous chemicals between 2010 and 2018. In 2017, two dedicated events were organised with the participation of ECHA and the Commission, and a survey among industry players was launched to learn

more about cases of substitution. In 2018, two new workshops were planned and a working party on substitution was set up within the Ministry of Health<sup>176</sup>. REACH inspectors have been trained in Italy by ECHA<sup>178</sup>.

Several LIFE projects on chemicals have also been supported in Italy<sup>179</sup>.

There is also an ongoing infringement procedure against Italy for the non-conformity of Italian legislation with Directive 2010/63/EU on the protection of animals used for scientific purposes. *Inter alia*, Italy introduced more stringent measures, thus going beyond the range of normative discretion allowed by the Directive.

### 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.

Europe can be seen as a Union of cities and towns: around 75% of the EU population are living in urban areas and this figure is projected to rise to just over 80% by 2050<sup>180</sup>. The urban environment poses particular challenges for the environment and human health, whilst also providing opportunities and efficiency gains in the use of resources. Municipalities are stimulated to become greener through the Green Capital Award<sup>181</sup>, the Green Leaf Award<sup>182</sup> and the Green City Tool<sup>183</sup>.

### Financing greener cities

Italy has allocated 5 % of its ERDF budget for 2014-2020 to sustainable urban development. It also has a national ERDF operation programme dedicated to metropolitan cities for the period 2014-2020.

In addition, Italy participates in the Urban Development Network<sup>184</sup>. The town of Portici in the Naples metropolitan area won a Urban Innovative Action (UIA) on urban air quality in October 2018.

<sup>167</sup> ECHA.

<sup>168</sup> Federchimica.

<sup>169</sup> CEES, RPA & Okopol, [Monitoring the Impacts of REACH on Innovation](#), Competitiveness and SMEs, Final Report, December 2015, pp. 103-4

<sup>170</sup> ISPRA, [Pesticidi nelle Acque](#).

<sup>171</sup> Ministry of Environment, [Press Release](#), 08.08.2018

<sup>172</sup> F. Strazzabosco, CINSEDO water seminar, 5.10.2018.

<sup>173</sup> Ministry of Environment, [Ministerial Decree](#) 22.11.2007.

<sup>174</sup> Italian Government, [REACH – Prodotti Chimici: informiamo i cittadini](#).

<sup>175</sup> CEES, RPA & Okopol, [Monitoring the Impacts of REACH on Innovation](#), Competitiveness and SMEs, Final Report, December 2015, p. vii

<sup>176</sup> Italian Government, [REACH and Substitution in Italy: challenges and opportunities](#), 2018.

<sup>177</sup> ECHA, [Strategy to promote substitution to safer chemicals through innovation](#), December 2017, p. 18.

<sup>178</sup> CEES, RPA & Okopol, [Monitoring the Impacts of REACH on Innovation](#), Competitiveness and SMEs, Final Report, December 2015, p.55

<sup>179</sup> For example, [LIFE PHOENIX & LIFE MATHER](#)

<sup>180</sup> European Commission, Eurostat, [Urban Europe](#), 2016, p.9.

<sup>181</sup> European Commission, [Green Capital Award](#).

<sup>182</sup> European Commission, [Green Leaf Award](#).

<sup>183</sup> European Commission, [Green City Tool](#).

<sup>184</sup> European Commission, [The Urban Development Network](#).



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### Participation in EU urban initiatives and networks

So far, no Italian city has either won or been shortlisted for the European Green City or Green Leaf Award. For the Green City award, Reggio Emilia applied in 2016, Bologna and Florence applied for 2019 and Prato applied for in 2020. For the Green Leaf award, Grottaglie applied in 2018, Aosta, Orbassano and San Miniato applied in 2017 and Siena applied in 2015.

Italian cities are involved in 26 thematic networks dealing with urban issues through the ERDF-supported URBACT initiative to promote sustainable urban development<sup>185</sup>. Italian cities are coordinating various URBACT networks: Cesena is coordinating 'Jobtown', which seeks to promote employment and opportunities for young people. Genoa is coordinating 'Interactive Cities', a network for improving digital-media, social media and user-generated content. Naples is coordinating the 'Second Chance' network, which seeks to make better use of vacant buildings and building complexes. It is also coordinating the CTUR network for the recovery of urban and harbour heritage. Piacenza is coordinating the 'MAPS' (Military Assets as Public Spaces) network. San Donà di Piave is coordinating the 'CityCentreDoctor' network to revitalise city centres. Turin is coordinating the 'Building Healthy Communities' network. Venice is leading the 'MILE' network for regions seeking to promote economic change.



Italian cities are also heavily involved in initiatives such as Eurocities and the EU Covenant of Mayors.

In addition, Italian cities are involved in various EU-supported 'smart cities' initiatives, especially on energy<sup>186</sup>.

All of these efforts should be encouraged, as slightly more than 19.4 % of people in Italian cities in 2017 reported that they lived in an area affected by pollution,

<sup>185</sup> URBACT.

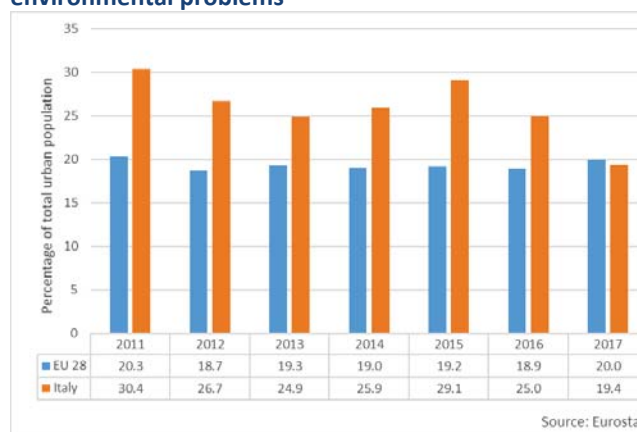
<sup>186</sup> EU Smart Cities Information System

grime or other environmental problems. This compared to an EU average of 20.0 %<sup>187</sup>. The change in these percentages in recent years is shown in Figure 20.

The Sustainable Development Foundation published a report in 2017 specifically looking at the challenges for the green economy in cities<sup>188</sup>. Legambiente publishes an annual report on the urban ecosystem<sup>189</sup>. The annual reports by CENSIS are another source of information on urban social trends of environmental relevance.

The EU funded PASTA project compared citizen concerns about air pollution in 7 European cities. The results revealed that, on average, 58% of participants were worried about the health effects of air pollution with the figure for Rome being 72%<sup>190</sup>.

**Figure 20: People in Italian cities reporting that they live in an area affected by pollution, grime or other environmental problems<sup>191</sup>**



### Nature and cities

11 % of the Natura 2000 network in Italy is within urban areas, below the EU average of 15 %<sup>192</sup> (see Figure 21). The indicator for access to green areas<sup>193</sup>(where a higher number means greater or easier access) are Milan: 6.9, Naples: 4.1 and Rome: 11.7. Of the 14 metropolitan cities in Italy<sup>194</sup>, the greenest is Genoa with an indicator of 17.3, and the least green is Messina with an indicator of 0.9.

<sup>187</sup> European Commission, Eurostat, [Pollution, grime or other environmental problems by degree of urbanisation](#).

<sup>188</sup> Foundation on Sustainable Development, [Relazione sullo stato dello green economy 2017](#), pp.10-33.

<sup>189</sup> Legambiente, [Ecosistema Urbano 2017](#)

<sup>190</sup> Dons, E., Laeremans, M., AnayaBoig, E. et al. (2018). Concern over health effects of air pollution is associated to NO2 in seven European cities. *Air Quality, Atmosphere & Health* 11(5), 591-599

<sup>191</sup> European Commission, Eurostat, [Pollution, grime or other environmental problems by degree of urbanisation](#).

<sup>192</sup> European Commission, 2017, [The 7<sup>th</sup> Report on Economic, Social and Territorial Cohesion](#), p. 121.

<sup>193</sup> Population-weighted median area (in hectares) of green urban areas and forests that can be walked to in 10 minutes.

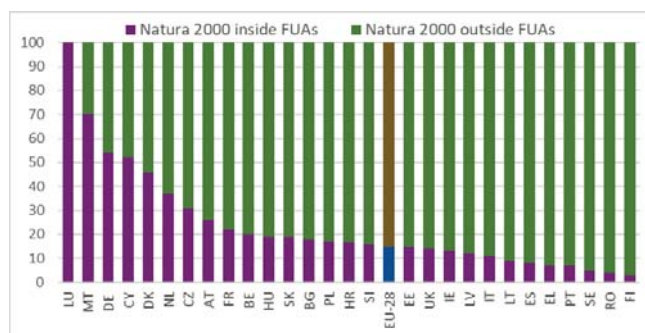
<sup>194</sup> Covered by the [ERDF OP Metropolitan Cities](#)

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The Italian statistics agency ISTAT does not have more up-to-date information on urban green space<sup>195</sup>.

A study on sustainable urban drainage systems in Avola, Sicily showed that green roofs can be more effective than permeable paving for controlling flood risk. In the study, green roofs halved the volume of flooding over a 10-year period, while permeable paving only slightly reduced the incidence of flooding<sup>196</sup>.

**Figure 21: Proportion of Natura 2000 network in Functional Urban Areas (FUA)** <sup>197</sup>



The annual budget law of 2018 provides a green bonus of 36 % on the costs up to EUR 5 000 for restructuring and irrigating gardens and green areas in building complexes.

### Urban sprawl

In 2009, Italy had the highest weighted urban proliferation (WUP) with 2.18 UPU/m<sup>2</sup><sup>198</sup> compared to a European average (EU28+EEA4) of 1.64 UPU/m<sup>2</sup>. This represented an increase of 4.59 % from 2006 to 2009<sup>199</sup>. Urbanisation is highest in the north, with Lombardy having a WUP of 4.30 UPU/m<sup>2</sup>.

### Traffic congestion and urban mobility

Passenger cars account for a large share of Italy's 'modal split' (the percentage of passenger kilometres travelled within a country, on private passenger cars, trains, buses or coaches). The total number of passenger cars in 2015 in the modal split was 80.7 % (EU average: 81.3 %)<sup>200</sup>. Italy also scores high on ownership of passenger cars. Italy had 625 passenger cars per thousand inhabitants in 2016, well above the EU average of 505 passenger

cars<sup>201</sup>.

There is a dedicated ERDF national programme for metropolitan cities 2014-2020. The 2015 Environmental Act<sup>202</sup> also provides funds for sustainable transport in cities.

According to INRIX, a transport-data analytics company, the average number of peak-travelling-time hours spent in traffic congestion in Italy in 2017 was 15. Rome was ranked as the most congested city with a figure of 39 hours<sup>203</sup>. People in Italy spent almost 38 hours in traffic congestion in 2016, an increase from 35.5 hours in 2014<sup>204</sup>.

Just over half of people (56 %) who live in cities walk every day, compared to the European average of 68 %. 66 % of Italian city-dwellers say they use a car every day, compared to the EU average of 50 %. On public transport, 13 % of urban Italians use public transport daily, which is below the EU average of 16 %. When asked how often they cycle in the city, 13 % of Italian city-dwellers cycle at least once a day, compared to an EU average of 12 %<sup>205</sup>.

'Smart mobility' means increasing the sustainability, efficiency and effectiveness of the transport system, primarily through improved connectivity. A 2017 study<sup>206</sup> examined sustainable transport on a national level in Italy from 2005 to 2015 to see how sustainable urban mobility plans or SUMPS (proposed by the Commission in 2013) were implemented. SUMPS provide the framework for ERDF investments, and in Italy a decree<sup>207</sup> requires municipalities with more than 100.000 inhabitants to prepare and adopt such plans within two years.

The researchers looked at 22 Italian cities to assess changes in public transport, cycle lanes, bicycle-sharing and car-sharing schemes.

Public transport showed the least change in the study, with demand remaining constant between 2005 and 2015. The main improvements to public transport were in technology, such as smart-phone apps to buy tickets and check timetables. For cycle lanes, the northern Italian cities generally showed greater bike-path development, although Cagliari and Palermo extended their bike paths and cycle infrastructure. The study also showed that bike-sharing schemes expanded rapidly during the ten-year period.

<sup>195</sup> ISTAT [Green Space](#), latest data was presented in the 2017 EIR.

<sup>196</sup> Pappalardo, V., La Rosa, D., Campisano, A., La Greca, P. (2017). The potential of green infrastructure application in urban runoff control for land use planning: A preliminary evaluation from a southern Italy case study. *Ecosystem Services*. 26(B): pp. 345-354.

<sup>197</sup> European Commission, [the 7<sup>th</sup> Report on Economic, Social and Territorial Cohesion](#), 2017, p. 121.

<sup>198</sup> Urban Permeation Units measure the size of the built-up area as well as its degree of dispersion throughout the region.

<sup>199</sup> EEA, [Urban Sprawl in Europe](#), Annex I, pp.4-5; p. 14.

<sup>200</sup> European Commission, [Transport in the European Union Current Trends and Issues](#), p. 69, 2018.

<sup>201</sup> Eurostat, [Passenger cars per 1 000 inhabitants](#), 2018.

<sup>202</sup> National Law 28.12.2015, in force since 4.2.2016.

<sup>203</sup> INRIX [Global Traffic Scorecard](#), p. 13; p. 17.

<sup>204</sup> European Commission, [Hours spent in road congestion annually](#).

<sup>205</sup> European Commission, Special Eurobarometer 406, [Attitudes of Europeans towards urban mobility](#), pp.7-10.

<sup>206</sup> Pinna, F., Masala, F. & Garau, C. (2017) Urban policies and mobility trends in Italian smart cities. *Sustainability*. 9:494.

<sup>207</sup> Decree n. 397/2017, August 2017



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Car sharing has also become more widely available in Italy, according to the study. In 2005, car sharing was only available in four cities, but by 2015 the availability of car sharing in these cities had increased, and five more cities had developed schemes. However, the researchers point out that the success of car-sharing schemes is linked to good public-transport systems, as the two services are complementary. ‘Park-and-ride’ services have also been developed in most cities.

The study showed that electric modes of transport were still limited in Italy and electric vehicles made up only 0.01 % of all cars in the cities studied in 2015.

Not all Italians have easy access to public transport. In 2012, the percentage of the population having a very high or high level of difficulty in accessing public transport was 37.5 % in rural areas, 36 % in towns and suburbs and 22.7 % in cities<sup>208</sup>.

The ERDF-supported flagship project for a tram system in Florence is still under construction<sup>209</sup>. EIB loans are being used in Naples to complete the city’s metro system<sup>210</sup>. The ERDF is also being used in Lombardy to promote the construction of cycle lanes and the installation of recharging points for cars<sup>211</sup>.

As mentioned in the 2017 EIR, the government has set up national observatories for shared mobility<sup>212</sup> and on local public transport<sup>213</sup>. The Connecting Italy (‘Connettere Italia’) strategy for transport infrastructure and logistics, continues to be implemented<sup>214</sup>. The national reform programme 2018 also refers to various transport and logistics plans of relevance to urban areas<sup>215</sup>.

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<sup>208</sup> Eurostat, [Difficulty in accessing public transport by level of difficulty and degree of urbanisation](#).

<sup>209</sup> European Commission, [regional projects](#), Florence tram.

<sup>210</sup> EIBI – [Napoli urban transport](#).

<sup>211</sup> 2018 ERDF Annual Implementation Report (citizens report), Lombardy, p. 9.

<sup>212</sup> [Observatory on Mobility Sharing](#).

<sup>213</sup> [Osservatorio Nazionale sulle politiche del Trasporto Pubblico Locale](#).

<sup>214</sup> [Connettere l’Italia — Strategie per le infrastrutture di trasporto e logistica](#), pp.44-46; [Strategy](#).

<sup>215</sup> National Reform programme 2018, p. 97, p. 134, p. 165. More specifically these are: i) a general transport and logistics plan, which aims to improve urban transport; ii) the national strategic plan for ports and logistics, and; iii) the strategic plan for renewing the local and regional bus fleet.

## 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.

Italy's environmental tax revenues amounted to 3.33 % of Gross Domestic Product (GDP) in 2017 (the EU 28 average was 2.4 % of GDP), as shown in Figure 22<sup>216</sup>. Energy taxes amounted to 2.65 % of GDP, with the EU average being 1.84 %. In the same year, environmental tax revenues accounted for 7.85 % of total revenues from taxes and social-security contributions (EU-28 average: 5.97 %).

Labour tax revenues as a share of total tax revenues was in line with the EU average, at 49.1 % in 2016. The tax burden on labour was 42.6 % in 2015<sup>217</sup>. Consumption taxes remained relatively low (26.5 % of tax revenues, placing Italy 24<sup>th</sup> in the EU-28). This suggests there is significant potential for shifting taxes from labour to consumption and in particular to environmental taxes.

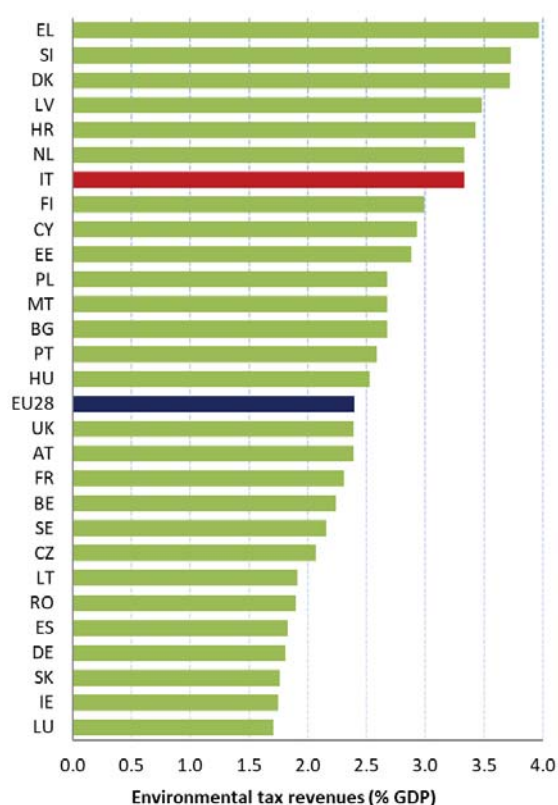
In the European Semester (the Commission's annual assessment of Member States), the Commission has repeatedly highlighted the potential in Italy to increase certain environmental taxes. It recommended greater environmental taxes in both 2017 and 2018<sup>218</sup>.

Nevertheless, there are several instances of Italy implementing sound fiscal measures on the environment. A good example is the phytosanitary production tax. The revenue is distributed annually to projects supporting organic agriculture<sup>219</sup>.

Several tax exemptions and rebates remain in place in the country for the use of fossil fuels in sectors such as energy, fishing, agriculture, private and public

transportation, trucking and rail transport<sup>220</sup>. These exemptions are estimated at EUR12 billion in 2016.

Figure 22: Environmental tax revenues as % of GDP (2017)<sup>221</sup>



The Regulation on the Governance of the Energy Union required Member States to detail in their National Energy and Climate Plans as well as to report on national policies, timelines and measures to phase out energy subsidies, in particular for fossil fuels. However, the 2015 Environmental Act anticipates this new European obligation and already requires the Ministry of Environment to produce annually a Catalogue of environmentally friendly subsidies and environmentally harmful subsidies by 31 July of each year. In the first estimate for 2016, environmentally harmful subsidies amounted to EUR 16.2 billion and environmentally friendly subsidies amounted to EUR 15.7 billion. The former include EUR 12 billion of fossil fuel subsidies. Italy

<sup>216</sup> Eurostat, [Environmental tax revenues](#).

<sup>217</sup> European Commission, [Taxation Trends Report](#), 2017.

<sup>218</sup> European Commission, [European Semester Country Report 2018](#), p. 54.

<sup>219</sup> Institute for European Environmental Policy, Case Studies on Environmental Fiscal Reform, [Phytosanitary tax in Italy](#).

<sup>220</sup> OECD, [Inventory of Support Measures for Fossil Fuels](#), 2018.

<sup>221</sup> Eurostat, [Environmental tax revenues, 2019](#)

had proposed to setup a committee on environmental taxation in 2015. However, this did not occur and there has been no further mention of it. The 2015 Environmental Act set up a National Natural Capital Committee, required to produce a report by the 28 February of each year; it includes available environmental accounting and economic estimates. The second report by this Committee was produced in February 2018, as mentioned earlier in this report<sup>222 223</sup>.

Considerable progress has been made on reducing the 'diesel differential' (difference in the price of diesel versus petrol) since 2005. In 2016 there was still an 18 % gap between the petrol and diesel excise rates, while in 2005 it was 37 %<sup>224</sup>. Excise tax rates levied on petrol and diesel in 2016 remained similar to those in 2015 (EUR 0.73 per litre for petrol and EUR 0.61 for diesel)<sup>225</sup>. In September 2018, there was around a 10 cent difference between petrol and diesel pump prices, a difference of 7.5%.

Incentives to purchase cars with lower CO<sub>2</sub> emissions were common in 2016. These incentives include annual circulation taxes, road tolls, congestion-zone charges and low-emission-zone charges. The incentives also included lower taxes on the purchase of new cleaner vehicles compared to higher-emission vehicles. New conventional fuel vehicles purchased in Italy are among the most environmentally friendly in the EU, with average CO<sub>2</sub> emissions of 113.3 grams per kilometre, below the EU average of 118 grams in 2016<sup>226</sup>.

After some years when the market share of new alternative-fuel passenger cars grew, the share has fallen considerably, and stood at 2.56 % in 2016, despite Italy being one of the main consumers in the EU of biodiesel with just over 6 % in 2015<sup>227</sup>. This is still far below the target for renewable energy to account for 10 % of transport energy by 2020.

The Italian government is further taking actions to elaborate legal and technical frameworks in view of the development of corporate Power Purchase Agreements in Italy to develop the renewable energy market, in line with principles of the recast of the Renewable Energy Directive.

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<sup>222</sup> [Ministry of Environment](#).

<sup>223</sup> [National Reform Programme 2018](#), pp.112-113.

<sup>224</sup> European Environment Agency 2017, [Environmental taxation and EU environmental policies](#), p. 24. The difference between petrol and diesel tax rates are expressed as % of diesel, i.e. positive values indicate that the petrol tax rates is by % percentage higher than diesel tax rate.

<sup>225</sup> European Commission, [Taxes in Europe Database](#), 2018.

<sup>226</sup> European Environment Agency, [Average CO<sub>2</sub> emissions from new passenger cars sold in EU-28 Member States plus Norway, Iceland and Switzerland in 2016](#).

<sup>227</sup> European Commission, [Transport in the European Union Current Trends and Issues](#), pp.71-72, 2018.

### 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>228</sup>.

As mentioned in the 2017 EIR, in 2013 Italy adopted the national action plan for GPP. A revision of this action plan is currently ongoing. The national action plan for GPP requires the Ministry of Environment to set out the minimum environmental criteria for public procurement. These minimum environmental criteria are the reference point at national level for the use of GPP by contracting authorities.

The inclusion in their contracts of the minimum environmental criteria is mandatory for all contracting authorities regardless of the value of the contract. Minimum environmental criteria, approved by ministerial decrees, have been published for 18 product groups, including buildings, vehicles, and food-and-catering services. For example, minimum environmental criteria for public lighting entered into force in 2018<sup>229</sup>.

To monitor the uptake of GPP, an agreement was signed in March 2018 between the Ministry of Environment and the National Anti-corruption Agency, identified by law as the body in charge of monitoring GPP<sup>230</sup>.

A remaining challenge for green public procurement is to include green infrastructure in public tenders.

A European Parliament study shows that Italy is a front-runner in the implementation of its national action plan for GPP<sup>231</sup>.

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<sup>228</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>229</sup> [Ministry of Environment](#).

<sup>230</sup> [Ministry of Environment](#).

<sup>231</sup> European Parliament, [Green Public Procurement and the Action Plan for the Circular Economy](#), 2017, pp. 79-80.

## 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>232</sup>. Use of the European Structural and Investment Funds (ESIFs)<sup>233</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>234</sup> and the European Fund for Strategic Investments (EFSI)<sup>235</sup> may also support the implementation and spread of good practices.

### European Structural and Investment Funds 2014-2020

Italy benefits from European structural and investment funds (ESIF) funding of EUR 44.7 billion through 15 national and 60 regional programmes. With a national contribution of just over EUR 31 billion, Italy has a total budget to spend of just over EUR 76 billion. Figure 23 shows the financing Italy receives through ESIF funds, broken down into different investment themes.

Other instruments such as Horizon 2020, the Connecting Europe Facility, the LIFE programme<sup>236</sup>, EIB loans and the EFSI<sup>237</sup> may also support environmental implementation and the spread of best practice in environmental funding.

### Cohesion policy

Italy will receive EUR 31.8 billion in total cohesion policy funding (ERDF and the European Social Fund (ESF)) over the 2014-2020 period, excluding national co-financing (9% of the total cohesion policy 2014-2020).

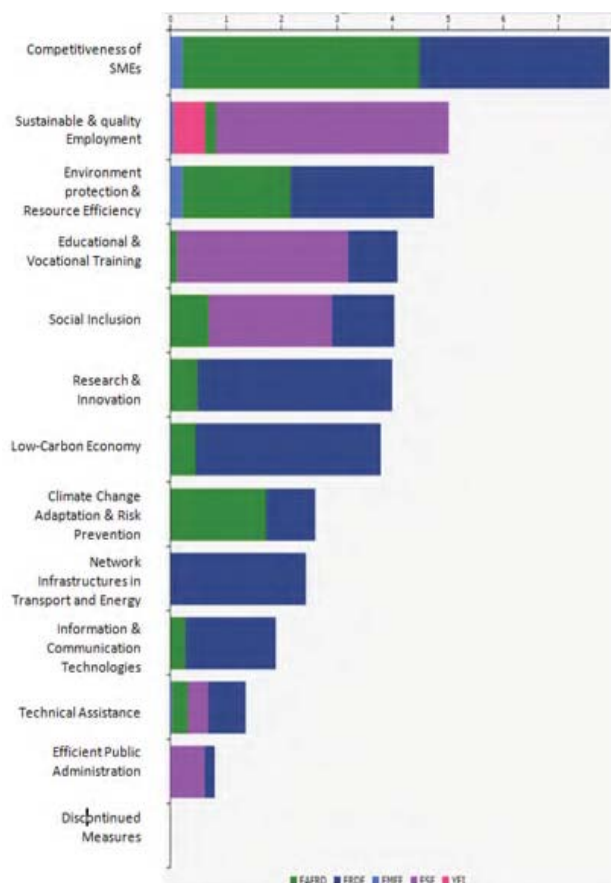
In the period 1988-2018, Campania (2<sup>nd</sup> place), Sicily (4<sup>th</sup> place), and Puglia (7<sup>th</sup> place) has received the highest amount of ERDF co-financing in the EU<sup>238</sup>.

Cohesion policy (and rural development) is a mixed competence, shared by both national programmes and regional programmes. The less developed south of the

country (Basilicata, Calabria, Campania, Apulia and Sicily) and transition regions (Abruzzo, Molise and Sardinia) receive more funding than the more developed central and northern regions in both the ERDF and the National Cohesion and Development Fund. 80 % of this funding goes to the south, and only 20 % to the centre and north. Investments in water and waste infrastructure from ERDF funding are strongly concentrated in the less developed south and in Sardinia for 2014-2020.

For projects dealing with natural capital (biodiversity), clean-ups of contaminated land, and risk prevention, funding from the ERDF 2014-2020 is now available for projects anywhere in Italy. In central and northern Italy, investments are focused on sustainable transport, sustainable energy, research, and the competitiveness of SMEs. This includes opportunities for eco-innovation and promoting the circular economy.

Figure 23: ESIF 2014-2020 – EU allocations by theme, Italy (EUR billion)<sup>239</sup>



For direct environmental expenditure<sup>240</sup>, Italy spent EUR 2.045 billion from the ERDF 2007-2013 programme in 2008, and EUR 2.107 billion in 2016.

<sup>232</sup> See, for example, Action plan on financing sustainable growth (COM(2018) 97).

<sup>233</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>234</sup> European Commission, [LIFE programme](#).

<sup>235</sup> European Investment Bank, [European Fund for Strategic Investments](#), 2016.

<sup>236</sup> European Commission, [LIFE Italy Sheet](#), 2016.

<sup>237</sup> European Investment Bank, [European Fund for Strategic Investments](#), 2016.

<sup>238</sup> European Commission, [Panorama](#), summer 2018, no.65, p.42.

<sup>239</sup> European Commission, [European Structural and Investment Funds Data By Country](#).

<sup>240</sup> ERDF codes 44 to 51 & 53 & 54.

## Environmental Implementation Review 2019 – Italy

For the 2014-20 period as a whole, direct environmental allocated expenditure is estimated at EUR 2.294 billion. Indirect environmental allocated expenditures for the period 2014-2020 as a whole from both the ERDF and ESF are estimated at EUR 6.502 billion. As the ERDF allocation is insufficient to close implementation gaps for water and waste, financing from national resources (and EIB and EFSI loans) is also needed.

Current data suggest that the EU funds for the 2007-2013 period were almost fully spent (92 %) in the ERDF ; thus Italy did not succeed to spend 8% of the allocated funds. However, experience shows that the environmental sector performs much worse than other sectors.

Italy has created a network to bring together environmental authorities and managing authorities of structural funds (the so-called *Rete*)<sup>241</sup>. The Ministry of Environment has also developed several initiatives and projects to strengthen its support for the regions. These initiatives and projects were detailed in the 2017 EIR. All the operational programmes funded by the structural funds explicitly refer to the use of minimum environmental criteria (as identified by the national action plan on GPP). This ensures that co-financed activities respect air quality plans under Directive 2008/50/EC, and that urban transport investments are consistent with the sustainable urban mobility plans. The strategic environmental assessment (SEA) monitoring indicators in the networks and mobility operational programmes 2007-2013 and 2014-2020 are a best practice<sup>242</sup>.

One of the selection criteria used in all 2014-20 ERDF programmes is that the programme must promote sustainable development.

An analysis by the Commission of the 2018 ERDF annual implementation reports shows that Italy has made limited progress in co-financing waste and water infrastructure (including reducing leakages) in the southern regions. The notable exceptions to this were Apulia (where progress was made on treating urban waste water) and Sardinia (where some limited progress was made in reducing waste going to landfills).

### Rural development

In the 2014-2020 period, Italy will also receive 10.4 billion for rural development from EU sources, of which EUR 4.1 billion is allocated for environment. Italy will also receive funding for basic environmental protection under the first pillar of the Common Agricultural Policy (CAP). For the period 2014-2020, 30 % of the CAP first pillar will be allocated to basic environmental protection. Italy will

receive 27 billion under the first pillar in this period, so approximately EUR 8.1 billion will be earmarked for environmental protection in 2014-2020.

In the current programming period, the Ministry of Environment has shown a strong commitment in improving funding for nature conservation, in particular through their participation in the monitoring committees of the ROPs and RDPs 2014-2020.

### European Maritime and Fisheries Fund

Over the 2014-2020 period, Italy will receive EUR 537 million for fisheries and maritime affairs from EU sources. EUR 228 million of this funding is for the environment<sup>243</sup>.

### The Connecting Europe Facility

The Connecting Europe Facility (CEF) has provided EUR 1.4 billion for projects to promote sustainable transport<sup>244</sup> up to the end of 2017. In energy, the projects planned by Italy have been to promote Liquefied Natural gas (LNG)<sup>245</sup>.

### Horizon 2020

Italy has benefited from Horizon 2020 funding since the programme started in 2014. As of January 2019, 3 161 participants have been granted a maximum amount of EUR 1.02 billion for projects from the Societal Challenges work programmes dealing with environmental issues<sup>246 247</sup>.

In addition to the abovementioned work programmes, climate and biodiversity expenditure is present across the entire Horizon 2020. In Italy, projects accepted for funding in all Horizon 2020 working programmes until December 2018 included EUR 1 billion destined to climate action (31.1 % of the total Horizon 2020 contribution to the country) and EUR 128 million for biodiversity-related actions (4 % of the Horizon 2020 contribution to the country)<sup>248</sup>.

### LIFE programme

Over a 25-year period from 1992 to 2017, the EU's LIFE programme has helped Italy make investments of

<sup>243</sup> European Commission, [Italy EMFF Fact Sheet](#).

<sup>244</sup> European Commission, [European Semester Country Report Italy 2018](#), p. 15.

<sup>245</sup> European Commission, [Connecting Europe Facility](#).

<sup>246</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>247</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>248</sup> European Commission [own calculations based on CORDA \(COmmon Research DAta Warehouse\)](#).

<sup>241</sup> Ministry of Environment, [Rete](#).

<sup>242</sup> 2018 ERDF Annual Implementation Report, Networks and Mobility, p. 34.



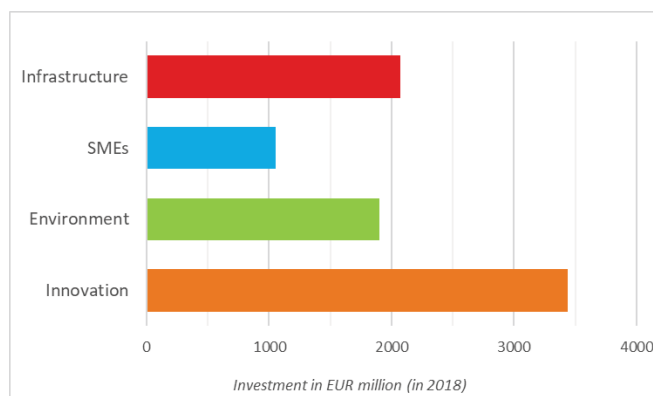
## Environmental Implementation Review 2019 – Italy

EUR 1.386 billion, with the EU itself contributing 652 million of that sum<sup>249</sup>. Over this time period, Italy has had the largest number of LIFE projects out of all the EU Member States. Notable LIFE projects in Italy include the LIFE integrated projects PREPAIR to improve air quality in the Po valley basin, and GESTIRE 2020, which funded Natura 2000 projects in Lombardy. The Ministry of Environment has set up a LIFE national contact point<sup>250</sup>.

### European Investment Bank

The EIB Group (the European Investment Bank and the European Investment Fund combined) invested EUR 8.5 billion in Italy over the course of 2018, making the country a large beneficiary of EIB funding during the year. 22.4 % of this investment went to support environmental projects, 12.5 % went to Italian SMEs, 24.5 % went to infrastructure spending, and 40.6 % was spent on innovation and skills (Figure 24).

Figure 24: EIB loans to Italy in 2018<sup>251</sup>



### European Fund for Strategic Investments

The European Fund for Strategic Investments (EFSI) is an initiative to help overcome the current investment gap in the EU and support economic growth. Italy had EFSI-approved financing of EUR 9.5 billion as of January 2019, with an expected related investment of EUR 55.2 billion<sup>252</sup>. EFSI projects to deal with hydrogeological hazards, urban waste-water treatment and decontaminated land have been cited earlier in this report.

### National environmental financing

In addition to co-financing EU projects, Italy spent a total of EUR 34.2 billion on environmental protection in 2015, an increase of 6.4 % from 2013<sup>253</sup>. 21.6 % of this expenditure came from the public sector (the average in the EU is 26.3 %), while corporations accounted for almost half of the total (45.1 %), and households for 33.2 %.

Despite the relatively low level of public funding for environmental protection, Italy is investing in the environment through its plan for environment (as part of its National Cohesion and Development Fund), with a budget of EUR 1.9 billion for the 2014-2020 period. 87.5 % of this budget is for water (EUR 1.66 billion), 6.6 % is for waste (EUR 126 million), and the remainder is for green infrastructure and energy efficiency<sup>254</sup>. Other sources of environmental financing include the Pact for the South, funds released through CIPE<sup>255</sup>, funds through the 2014 Unblock Italy Decree

### Overall environmental financing

In Italy the annual total public environmental expenditure as a percentage of GDP is estimated at around 1.12%<sup>256</sup>.

As it has been mentioned through the report, one of the main challenges for Italy is to ensure that environmental financing remains at an adequate level. Existent financial gaps in areas such as nature protection, water, waste or air 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 actions

- Close the serious implementation gaps for water, waste and air using EU and national funds and other sources.
- Enhance the use of EU funds to implement targeted nature conservation measures.
- Improve the capacity of environmental administrations at national, regional and local to ensure programmed expenditure takes place.

<sup>249</sup> EASME internal communication 15.2.2018.

<sup>250</sup> [LIFE projects national page](#), Ministry of Environment.

<sup>251</sup> [EIB](#).

<sup>252</sup> European Investment Bank, [EFSI project map](#).

<sup>253</sup> Eurostat, [National Expenditure on Environmental Protection](#), 2018.

<sup>254</sup> Ministry of Environment, Piano Operativo 'Ambiente' Fondo Sviluppo e Coesione (FSC) 2014-2020 Delibere CIPE n. 25 del 10/08/2016 e n. 55 del 1.12.2016.

<sup>255</sup> Comitato interministeriale per la programmazione economica

<sup>256</sup> Commission annualized estimate based on ESIF, Horizon 2020, EIB and EFSI loans, LIFE and national public environmental expenditures 2014-2020.

## 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>257</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>258</sup>. It includes the right to bring legal challenges (‘legal standing’)<sup>259</sup>.

#### Environmental information

Italy has a main National Environmental Information System portal that carries out all the information functions of the national node of the SINAnet network.<sup>260</sup> The information is generally easily obtained through the national environmental portal and is adequately disseminated. Generally there are links to European legal base documents and also links to national policies and programs related to the main environmental domains. Historical data sets are mostly provided and also some limited metadata. Generally the system can be characterized as a centralized system with links to related environmental portals with some limitations on search functionalities.

Italy’s performance on the implementation of the INSPIRE Directive leaves room for improvement. The accessibility of spatial data through view and download services is poor. The performance has been reviewed based on their 2016 implementation report<sup>261</sup> and their

<sup>257</sup> The Aarhus Convention, the Access to Environmental Information Directive 2003/4/EC and the INSPIRE Directive 2007/2/EC together create a legal foundation for the sharing of environmental information between public authorities and with the public. This EIR focuses on INSPIRE.

<sup>258</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>259</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>260</sup> National Environmental Information System portal

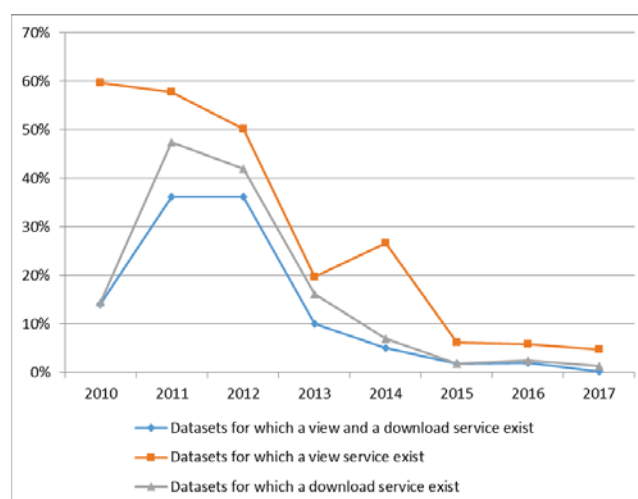
<sup>261</sup> INSPIRE IT country sheet 2017

most recent monitoring data from 2017<sup>262</sup>. Good progress and implementation levels exist for data identification and documentation of data. Additional efforts are needed to improve data sharing and reuse, making the data accessible through services and to prioritise environmental datasets in the implementation in particular those identified as high-value spatial data sets for the implementation of environmental legislation<sup>263</sup>. On 17 November 2017 there were 19 261 metadata entries (spatial data and services) for Italy in the INSPIRE Geoportal database. There are 453 different conditions applying to the access and use and 219 different applicable limitations on public access documented in metadata published by Italy. Figure 25 shows access to spatial data.

As mentioned in the 2017 EIR, the Ministry of Environment maintains a public database (the Portal for Environmental Assessments), which has detailed information on projects requiring EIAs and SEAs (environmental impact assessments and strategic environmental assessments). The database contains technical background and documentation, which allows the public to analyse the projects in detail. The portal is accessible in English and Italian and is recognised as an example of EU best practice.

However, with the exception of a few regions (Emilia-Romagna, Lombardy), user-friendly databases of this type are not widespread at the regional level for EIA and SEA procedures.

**Figure 25: Access to spatial data through view and download services in Italy (2017)**



<sup>262</sup> INSPIRE monitoring dashboard

<sup>263</sup> European Commission, List of high value spatial data sets

## Environmental Implementation Review 2019 – Italy

### Public participation

In Italy, public participation is regulated not only by general provisions (law on administrative proceedings, n. 241/1990), but also by sectoral environmental ones which include stronger rules on public participation as compared to the general ones. The Italian Environmental Code includes provisions in relation to environmental assessments (EIA/SEA) and industrial permits. Other sectoral provisions exist in water and nature legislation but no overarching regulatory approach was identified.

The Italian government and local authorities, normally, do not use procedures other than those required by law to involve the local population interested in environmental issues. In exceptional cases, due to the strong popular protests, an Observatory has been set up that mainly involves local authorities and only indirectly the affected populations. On other hand, the Ministry of Public Administration encourages local projects to involve citizens in administrative decisions<sup>264</sup>. In particular, the Ministry supports citizens' evaluation of services; promotes participatory budgeting initiatives; favors the inclusion of stakeholders in decision-making processes, including through e-democracy initiatives.

The Eurobarometer figures from 2017 show that in Italy, there is a relatively strong agreement (89% of respondents) that an individual can play a role in protecting the environment which is a slight increase compared to 2014.

The Ministry of Environment regularly submits programme documents and draft bills for public consultation, such as on the National Strategy for Sustainable Development and on the and on the circular economy in 2017 (mentioned elsewhere in this report).

The Italian government has proposed to further increase transparency and the participation of the general public in environmental assessment procedures for example through the previously cited CREIAMO project<sup>265</sup>.

### Access to justice

Significant progress is needed to inform the general public about effective remedies for individuals and environmental associations for access to justice in environmental matters under Italian and EU law. This could be ensured, for instance, by a detailed guideline with practical information on how to take practical steps. Moreover, the current information is limited and not user-friendly. Some practical information is available in the website of an important NGO (Legambiente)<sup>266</sup>.

However, this cannot replace structured and user-friendly information, available on line, from public authorities.

Access to justice in environmental matters (as well as in most administrative matters) is granted to those individuals or entities on the basis of a claim of harm to their legitimate interest. This requirement does not apply to the environmental NGOs accredited with the Ministry of Environment under the meaning of Article 13 of Law no. 349 of 1986.

According to Article 311 of the Environmental Code, only the Ministry of the Environment can bring environmental damage claims. The Constitutional Court has upheld this legislative choice, by affirming that, in the light of the exclusive competence of the State in regulating environmental matters established by Article 117 Constitution, the State itself is entrusted, through the Ministry of Environment, as the sole entity vested with the *legitimitas ad causam* needed to claim compensation for environmental damage. Thus, individuals and NGOs do not have an autonomous legal standing in this respect. However, the Supreme Court (*Corte di Cassazione*) in a number of decisions has stated that the fact or event which causes environmental damage may cause other damages to primary rights such as the health and safety of the people or to property. Therefore, these damages can be claimed by individuals and NGOs, even those not recognised at a national level.

Italy applies in civil and administrative procedures the loser pays principle. However, it is uncommon that an administrative court condemned public agencies to significant reimbursement of legal expenses, even in the case of victory of the claiming party. With regard to financial barriers to access to justice in environmental matters, for the time being, no specific barrier has to be reported.

### 2019 priority actions

- Improve access to spatial data and services by making stronger linkages between the country INSPIRE portals, identify and document all spatial datasets required to implement environmental law, and make the data and documentation at least accessible 'as is' to other public authorities and the public through the digital services envisaged in the INSPIRE Directive.
- Better inform the public about their access to justice rights, notably in relation to air pollution and nature.

<sup>264</sup> Italian government, [A quality administration](#).

<sup>265</sup> Ministry of Environment, [Speech of Minister Costa](#), 5.7.2018; [Workshop 20.09.2018](#).

<sup>266</sup> Legambiente (2013) [Strumenti per la Tutela degli interessi diffusi](#).

### 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>267</sup>. It includes support measures provided by the authorities, such as:

- (i) compliance promotion<sup>268</sup>;
- (ii) inspections and other checks that they carry out, i.e. compliance monitoring<sup>269</sup>; and
- (iii) the steps that they take to stop breaches, impose sanctions and require damage to be remedied, i.e. enforcement<sup>270</sup>.

Citizen science and complaints enable authorities to focus their efforts better. Environmental liability<sup>271</sup> ensures that the polluter pays to remedy any damage.

### Compliance promotion and monitoring

The quality of online information to farmers on how to comply with obligations on nitrates and nature is an indicator of how actively authorities promote compliance in subject-areas with serious implementation gaps. The official websites of the relevant Italian authorities lack (with some exceptions in individual regions<sup>272</sup>) structured detailed information for farmers on how to comply with these obligations.

Major industrial installations present serious pollution risks. Public authorities are required to have plans to inspect them and to make individual inspection reports available to the public<sup>273</sup>. In Italy, the National Inspection Plan for IPPC-IED plants is published online in the ARPA<sup>274</sup> website<sup>275</sup>. The information concerning the number and results (including violation of the permits and administrative sanctions imposed) of inspections (both planned and extraordinary ones) performed by ISPRA and ARPAs with regard to all plants holding IPPC permits are provided online in the yearly ISPRA Report on the inspections performed under Article 29-decies, para 3, of

<sup>267</sup> The concept is explained in detail in the Communication on 'EU actions to improve environmental compliance and governance' [COM\(2018\)10](#) and the related Commission Staff Working Document, [SWD\(2018\)10](#).

<sup>268</sup> This EIR focuses on the help given to farmers to comply with nature and nitrates legislation.

<sup>269</sup> This EIR focuses on inspections of major industrial installations.

<sup>270</sup> This EIR focuses on the availability of enforcement data and co-ordination between authorities to tackle environmental crime.

<sup>271</sup> The [Environmental Liability Directive 2004/35/EC](#), creates the framework.

<sup>272</sup> e.g. [Lombardy Region](#), [Piedmont Region](#);

<sup>273</sup> Article 23, [Industrial Emissions Directive 2010/75/EU](#).

<sup>274</sup> Regional environmental protection agencies (Agenzie regionali per la protezione ambientale).

<sup>275</sup> ISPRA 2018, [Programmazione Controlli Statali AIA](#)

Legislative Decree No 152/2006<sup>276</sup>. The latest report for 2017 was released in April 2018<sup>277</sup>. No sufficient information was found online on the number and range of complaints received by inspection authorities.

### Citizen science and complaint handling

For the moment numerous complaints relating to the environment are received by the Commission. This indicates that complaint handling at national level could be improved.

Engagement of citizens, including through citizen science, can deepen knowledge about the environment and help the authorities in their work. The added value of use of citizen science as well as earth observation tools for environmental (compliance) monitoring is well recognised in Italy<sup>278</sup>. The state of the art concerning the employment of citizen science was discussed during the 'First Italian Citizen Science Conference 2017' organised by the National Science Academy and held at the National Council of Research in Rome on 23-25 November 2017<sup>279</sup>. Another international congress on the topic was held in Venice<sup>280</sup>.

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. In Italy, such online information on to whom and how to submit a complaint about environmental nuisance or environmental damage can be found online and is often provided in the form of frequently asked questions (FAQ)<sup>281</sup>.

### Enforcement

When monitoring identifies problems, a range of responses may be appropriate. The specialised environmental unit of the Italian Carabinieri (*Comando Unità per la Tutela Forestale, Ambientale e Agroalimentare Carabinieri*) publishes a yearly report of their environmental control, follow-up and enforcement activities<sup>282</sup>. However, no structured statistics were found on prosecution and court cases related to environmental crime, and the information available does not allow conclusions on the effectiveness of sanctions and the achievement of compliance after follow-up measures and

<sup>276</sup> ISPRA 2017 [Autorizzazione Integrata Ambientale Attività di controllo](#) (Art. 29-decies, comma 3 del D.Lgs. 152/2006). The full report of each inspection – not published therein – is sent by ISPRA to the Ministry of Environment.

<sup>277</sup> ISPRA [2017 Autorizzazione Integrata Ambientale Attività di controllo](#) (Art. 29-decies, comma 3 del D.Lgs. 152/2006).

<sup>278</sup> See for detailed information at: [ARPAT Toscana](#).

<sup>279</sup> [First Italian Citizen Science Conference](#).

<sup>280</sup> Ministry of Environment, [Press Release](#) 23.11.2018

<sup>281</sup> See for instance at [ISPRA](#).

<sup>282</sup> Ministry of Environment, [checks made by the Carabinieri for Environmental Protection](#).

enforcement action has been taken. Information on responses to cross-compliance breaches on nitrates and nature is lacking but some Italian regions provide guidelines for enforcers on administrative sanctions for breaches related to the Nitrate Directive<sup>283</sup>.

Tackling waste, wildlife and other environmental crimes is especially challenging and requires close co-operation and co-ordination arrangements between inspectors, customs authorities, police and prosecutors. A robust legal framework exists concerning exchange of information between relevant competent authorities. In 2016, the National Network for Protection of the Environment was established to coordinate, inter alia, control activities of ISPRA and regional agencies. However, no information could be identified on official websites on formal cooperation mechanisms between inspectors and other relevant actors along the enforcement chain.

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

### 2019 priority actions

- Better inform the public about compliance promotion, monitoring and enforcement by at least ensuring availability of structured and easily accessible online information to farmers about how to comply with obligations on nitrates and nature, and providing more online information on plans for industrial inspections
- Publish information on outcomes of enforcement action and of the follow-up to detected cross-compliance breaches on nitrates and nature.
- Improve financial security for liabilities and ELD-guidance and publish information on environmental damage.

<sup>283</sup> See for instance, Regione Lombardia, Linee guida in ordine alla applicazione delle sanzioni amministrative previste dall’art. 130 decies della legge regionale 31/2008 così come modificata ed integrata dall’art. 14 dalla legge regionale 7/2012.

## 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

The Commission adopted country-specific recommendations (CSRs) in 2015, 2016 and 2017, recommending that Italy improve its institutional framework and modernise its public administration. The government passed a law in August 2015 to improve the public administration, and various decrees have been adopted over the last three years to implement the law. These decrees can have indirect influence for the environment. In the context of the Interregional Study and Documents Centre CINSEDO<sup>284</sup> EIR seminar series, a wide-ranging analysis was made of the CSRs to see how they relate to individual policy areas<sup>285</sup>. The regions and autonomous provinces also played a key role in the preparation of the national reform programme, and argued strongly for including the UN’s sustainable development goals (SDGs) in the final draft of the programme<sup>286</sup>.

The 2018 national reform programme introduced for the first time an indicator showing the level of progress on reforms undertaken by the government, the CRPI (Competitiveness Relevance Progress Indicator)<sup>287</sup>. Implementation of environmental law is not one of the areas explicitly covered by this index.

The 2017 EIR report examined extensively the efficiency of environmental administration, so only a few points are reiterated in this edition.

As mentioned in the 2017 EIR, Italy has regional (and national) administrative reinforcement plans<sup>288</sup> to improve implementation of ESIF projects. The decision to create administrative reinforcement plans was partly a reaction to the 2015 country-specific recommendation<sup>289</sup>. The administrative reinforcement plans also cover non-ESIF administrative capacity-building, and should lead to a reform of the public administration and reinforcement of management structures. The national operational programme on

<sup>284</sup> Centro Interregionale Studi e Documentazione

<sup>285</sup> C. Cellai, CINSEDO waste seminar, 20.4.2018.

<sup>286</sup> [National Reform Programme 2018](#), p. 125.

<sup>287</sup> [National Reform Programme 2018](#), p. 10.

<sup>288</sup> Programma Rafforzamento Amministrativa.

<sup>289</sup> [Partnership Agreement 2014-20](#).



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‘governance and institutional capacity’ for 2014-20 also provides another opportunity to improve administrative capacity in the environmental sector.

Reforms to the governance of national parks, protected areas and waste consortia were announced in the 2016 national reform programme<sup>290</sup>. These reforms have yet to be completed<sup>291</sup>. The creation of the hydrographic basins (distretti idrografici) was completed in 2016.

The ISPRA report on its performance for 2015 shows that ISPRA had 1 270 employees at the end of 2015, of which 1 153 were permanent and 117 temporary. At the end of 2016, the Ministry of Environment had 559 permanent employees and 3 temporary. The Ministry of Environment is also supported by the technical assistance of the National Research Council (CNR), ISPRA and Sogesid.

The government is proposing to take steps to recruit new officials to the Environment Ministry as there has not been an entrance competition in 30 years. A ministerial decree was signed to increase transparency on lobbying in the Environment Ministry on 1 August 2018<sup>292</sup>, introducing a public agenda of decision-makers, including the Minister, the Undersecretaries, the Chief of Cabinet and the General Directors, to be published on the website.

In terms of increasing transparency, a ministerial decree has been issued introducing criteria for selecting members of the EIA/SEA Technical Commission in November 2018<sup>293</sup>.

Italy’s score in 2018 Environmental Performance Index is 76.96 and ranks 16 out of 180<sup>294</sup>. The 2017 European Quality of Government Index gave Italy an overall ranking of -1.07811 (EU28 benchmark = 0), with Calabria at -2.27924 and Bolzano and Trento at -0.233; thus all regions were below the EU average<sup>295</sup>.

### Coordination and integration

As mentioned in the 2017 EIR Report, the transposition of the revised EIA Directive<sup>296</sup> provides an opportunity to streamline the regulatory framework on environmental assessments. Italy has completed the transposition of the EIA Directive by the deadline (May 2017).

Together with the adoption of the 2017 Italian Energy Strategy (SEN), the Italian government has stated the intention to set-up of a special Steering Committee to follow the implementation of the SEN and improve coordination between different Ministries. The definition of the Italian National Energy and Climate Plan will also improve policy coordination of national administrations and enable to better explore synergies between different sectors.

The Commission encourages the streamlining of the environmental assessments in order to reduce duplication and avoid overlaps in environmental assessments applicable to projects. Moreover, streamlining helps reducing unnecessary administrative burden and accelerates decision-making, without compromising the quality of the environmental assessment procedure<sup>297</sup>. Italy has introduced the streamlining of assessments under EIA and Habitats Directives. Coordination of procedures exists for EIA, Water framework and Industrial Emissions Directives.

These integrated/coordinated procedures are an example of best practice. Italy is also looking to further increase efficiency on assessment procedures<sup>298</sup>.

The national ministries dealing with the environment (e.g. the Ministry of Environment) were described in the 2017 EIR. An important feature of Italy’s constitution is that the general legislative power belongs to the state and regions equally.

The National System for Environmental Protection (‘Sistema Nazionale per la Protezione dell’Ambiente’, SNPA) coordinated by ISPRA<sup>299</sup> provides technical and scientific support to local, regional and national bodies that work in environmental administration. SNPA also collects, organises and disseminates environmental data.

The SNPA Council provides binding opinions on technical measures in environmental matters adopted by the government. And in June 2016, regional environmental agencies have been tasked with ensuring that the regional environmental agencies perform their work according to a set essential uniform technical standards through LEPTA (‘Livelli essenziali delle prestazioni tecniche ambientali’) within SNPA.

Another public national agency that cooperates with the Ministry of Environment is the Superior Health Institute, which carries out epidemiological assessments and monitoring of contaminated sites of national interest for

<sup>290</sup> Programma Nazionale di Riforma 2016, April 2016, p. 58.

<sup>291</sup> [National Reform Programme 2018](#), p. 138.

<sup>292</sup> Ministry of Environment, [Press Release](#), 01.08.2018

<sup>293</sup> Ministry of Environment, [Press Release](#), 13.11.2018.

<sup>294</sup> Yale Center for Environmental Law & Policy (2018), [2018 Environmental Performance Index](#), Yale University, p. 4.

<sup>295</sup> European Commission, [The 7<sup>th</sup> Report on Economic, Social and Territorial Cohesion](#), 2017, p. 140.

<sup>296</sup> [Directive 2014/52/EU](#) of the European Parliament and of the Council of 16 April 2014 amending [Directive 2011/92/EU](#) on the assessment of the effects of certain public and private projects on the environment.

<sup>297</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.

<sup>298</sup> Environment Ministry, [technical meeting 25.05.2018](#).

<sup>299</sup> Istituto superiore per la protezione e la ricerca ambientale.

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the period 2013-2015. The Ministry of Environment also cooperates with universities which may include scientific support for the Ministry's work.

A lack of co-ordination appears to be at the root of many environmental issues relating to waste and water, but also to air. Focusing on these root causes would result in sustainable solutions for many environmental implementation gaps.

There are examples of regional good practices in the fields of waste, air and water policies<sup>300</sup>.

The government has proposed to improve co-ordination between environment policy and other policy sectors. He cited transport policy as an example, and suggested measures to make low-emission transport less expensive and using funds from carbon auctions to finance a new sustainable transport programme for local authorities<sup>301</sup>.

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

Italy has carried out several reforms in recent years aimed to increase the use of electronic services in government. For instance, the Public System for Digital Identity ('Sistema Pubblico per l'Identità Digitale') has been improved, with 3 720 public administrations now participating, and further changes planned.

For digital public services, Italy scored 0.44/1 in the Commission's Europe's Digital Progress Report 2017. This is lower than the EU-28 average of 0.55/1<sup>302</sup>. In the DESI Report 2018, Italy had a score of 53 out of 100 on digital public services, lower than the EU average of 58<sup>303</sup>.

On 'domestic adaptability', Italy scored an 8 in the 2017 sustainable governance indicators (SGI) project. This means that, in many cases, the government has adapted domestic government structures so that they are in line with international and supranational standards<sup>304</sup>.

### Enabling financing and effective use of funds

As mentioned in the 2017 EIR, cohesion policy in Italy has suffered from three main problems: fragmentation, lack of appropriate administrative capacity and weak central control. The new National Cohesion Agency was created to resolve these issues.

For the ERDF major projects 2007-2013 that are submitted for the Commission's approval, it is estimated

that just over 50 % have had difficulties with environmental procedures (e.g. EIAs). Indeed, a lack of administrative capacity in small municipalities can lead to difficulties in using EU funds for environmental purposes. The ERDF and ESF both provide technical assistance to help countries build capacity so that they will be better able to use the funding they are allocated.

### 2019 priority action

- Italy can further improve its overall environmental governance (such as transparency, citizens engagement, compliance and enforcement, as well as administrative capacity and coordination).
- Continue to address the fragmented implementation of environmental policy at regional and local levels by developing better national-level coordination mechanisms for the environment.

### 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>305</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.

As mentioned in the 2017 EIR, Italy has signed but not yet ratified: the Offshore Protocol of the Barcelona Convention<sup>306</sup>; the Protocol on Integrated Coastal Zone Management; two agreements under the Convention on Long-range Transboundary Air Pollution (the Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone; and the Heavy Metals Protocol); the Stockholm Convention on Persistent Organic Pollutants; the Kiev Protocol on Pollutant Release and Transfer Registers; the Nagoya Protocol<sup>307</sup>.

New problems have also emerged in Italy's administrative framework for dealing with the trade in tropical timber, genetic resources and wildlife. These three issues are discussed in more detail below.

<sup>300</sup> CINSEDO waste seminar 20.4.2018. air 6.7.2018 & water seminars, 5.10.2018.

<sup>301</sup> Ministry of Environment, [Speech of Minister Costa](#), 5.7.2018.

<sup>302</sup> European Commission, 2017 [Europe's Digital Progress Report \(EDPR\) 2017 Country Profile Italy](#), p. 11.

<sup>303</sup> European Commission, [Digital Economy and Society Index Report 2018, Digital Public Services](#).

<sup>304</sup> [Sustainable Governance Indicators](#).

<sup>305</sup> [UN General Assembly Resolution 72/277](#) and [Organizational session of the ad hoc open-ended working group](#).

<sup>306</sup> Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil.

<sup>307</sup> Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation to the Convention on Biological Diversity.

### **Forests: EU Timber Regulation (EUTR)<sup>308</sup>/ Forest Law Enforcement, Governance and Trade (FLEGT) Regulation<sup>309</sup>**

In Italy, the small amount of customs data available makes it difficult for competent authorities to build up a solid risk-based inspection system. So far, Italy has issued 16 administrative sanctions against businesses importing timber that infringed their obligations under the EUTR. These infringements covered areas such as a lack of due diligence by businesses, a lack of traceability in the timber they bought, or dealing in prohibited types of timber. Italy has reported collaborating with government institutions in other countries, in particular national customs services. Italy is also involved in the set-up of a Mediterranean network on EUTR implementation.

Italian experts participated in a TAIEX-EIR PEER 2 PEER workshop in order to strengthen cooperation among the competent authorities from eight Mediterranean Member States to improve and harmonise implementation of the EUTR 5-6 June 2018.

### **Genetic resources: Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising (ABS)<sup>310</sup>**

Italy has identified its competent authorities responsible for implementing EU rules on the use of genetic resources. However, Italy has still not adopted a formal act to designate these authorities. Italy has also not yet laid down rules for penalties.

### **International wildlife trade: the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)<sup>311</sup>**

Italy has set up relevant national authorities to fulfil its obligations under the CITES treaty. Reports testify to the activity of customs authorities.

#### **2019 priority action**

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

<sup>308</sup> [Regulation \(EU\) No 995/2010 of the European Parliament and of the Council of 20 October 2010](#)

<sup>309</sup> [Regulation \(EC\) No 2173/2005](#) of 20 December 2005 on the establishment of a FLEGT licensing scheme for imports of timber into the European Community.

<sup>310</sup> [Regulation \(EU\) No 511/2014](#) of the European Parliament and of the Council of 16 April 2014 on compliance measures for users from the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation in the Union Text with EEA relevance.

<sup>311</sup> [The Convention on International Trade in Endangered Species of Wild Fauna and Flora \(CITES\)](#).

### **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 Italian national sustainable development strategy (NSDS) 2017-2030 was approved by the Council of Ministers in October 2017 and definitively adopted by the Interministerial Committee for Economic Programming (CIPE)<sup>312</sup> in late December of the same year<sup>313 314</sup>. Within 12 months of the CIPE decision, the regions must be equipped with comprehensive regional sustainable development strategies coherent with the national strategy. The Ministry of Environment, through the allocation of financial resources and the provision of technical assistance, is supporting the regions in drafting their strategies, in strengthening regional governance, in enhancing civil society participation and in the follow up, monitoring and review process. The NSDS also provided the basis for the presentation of the Voluntary National Review (VNR) of Italy on the implementation of the goals and targets of the 2030 to the UN High Level Political Forum in 2017<sup>315</sup>. The preparatory process leading to the development of the NSDS and to the VNR involved a wide range of stakeholders, more than 200 NGOs, national and regional authorities as well as universities, academia and research sectors. Public national administrations cooperated throughout the process to set shared National Strategic Choices and Objectives, as well as to identify viable and existing means of implementation.

A dedicated action plan providing for quantified strategic objectives in sustainable development was expected for 2017 but has not yet been adopted. A National Commission for Sustainable Development was established on 16 March 2018.

The Italian Alliance for Sustainable Development publishes annual reports on Italy's performance in achieving the sustainable development goals (SDGs) with their latest report issued on 4 October 2018<sup>316</sup>.

The *Rete* is being used as a forum to discuss the contribution of cohesion policy to the NSDS<sup>317</sup>.

The Environment Act plans to update the NSDS every three years as the strategic reference framework aimed at fully integrate the environmental dimension in

<sup>312</sup> Comitato interministeriale per la programmazione economica

<sup>313</sup> Ministry of Environment, [Sustainable Development Strategy](#), 2017.

<sup>314</sup> [National Reform Programme 2018](#), pp.12-14, pp.112-113.

<sup>315</sup> Ministry of Environment, [Voluntary National Review Italy National Sustainable Development Strategy](#), 2017.

<sup>316</sup> [Italian Alliance for Sustainable Development](#).

<sup>317</sup> Ministry of Environment, [Rete Plenary 5.3.2018](#).

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decision and policy making processes. It should be noted that there is no environmental action plan at national level, although environmental action plans exist in some regions<sup>318</sup>. As mentioned in the 2017 EIR, Italy has taken steps to include environmental concerns in budgetary issues by creating the BES<sup>319</sup> indicator system. The Ministry of Economy and Finance is tasked with producing an annual analysis reporting back to the Italian parliament by 15 February each year<sup>320</sup>. BES was identified in the 2018 European Semester country report for Italy as best practice<sup>321</sup>.

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<sup>318</sup> European Environment Agency, [More from less — material resource efficiency in Europe](#). 2015 overview of policies, instruments and targets in 32 countries, 2016, Italy report, p. 9.

<sup>319</sup> from the Italian 'Benessere equo e sostenibile' or 'Wellbeing, Equal and Sustainable.

<sup>320</sup> [Documento di economia e finanza 2017](#)

<sup>321</sup> ISTAT [BES report](#).