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**Executive summary**

**About the Environmental Implementation Review**

In May 2016, the Commission launched the Environmental Implementation Review (EIR), a two-year cycle of analysis, dialogue and collaboration to improve the implementation of existing EU environmental policy and legislation[[1]](#footnote-1). As a first step, the Commission drafted 28 reports describing the main challenges and opportunities on environmental implementation for each Member State. These reports are meant to stimulate a positive debate both on shared environmental challenges for the EU, as well as on the most effective ways to address the key implementation gaps. The reports rely on the detailed sectoral implementation reports collected or issued by the Commission under specific environmental legislation as well as the 2015 State of the Environment Report and other reports by the European Environment Agency. These reports will not replace the specific instruments to ensure compliance with the EU legal obligations.

The reports will broadly follow the outline of the 7th Environmental Action Programme[[2]](#footnote-2) and refer to the 2030 Agenda for Sustainable development and related Sustainable Development Goals (SDGs)[[3]](#footnote-3) to the extent to which they reflect the existing obligations and policy objectives of EU environmental law[[4]](#footnote-4).

The main challenges have been selected by taking into account factors such as the importance or the gravity of the environmental implementation issue in the light of the impact on the quality of life of the citizens, the distance to target, and financial implications.

The reports accompany the Communication "*The EU Environmental Implementation Review 2016: Common challenges and how to combine efforts to deliver better results*", which identifies challenges that are common to several Member States, provides preliminary conclusions on possible root causes of implementation gaps and proposes joint actions to deliver better results. It also groups in its Annex the actions proposed in each country report to improve implementation at national level.

**General profile**

Malta is the most urbanised, most densely populated (as inhabitants/km2) and the smallest Member State. These conditions, as well as the scarcity of natural resources, in particular water, pose specific challenges to Malta. Nevertheless a strong public support for environmental protection is rooted in the need to safeguard Malta's natural values for the future generations and also due to its economic importance for tourism.

**Main Challenges**

The main challenges with regard to implementation of EU environmental policy and law in Malta derived from this review are:

* Speeding up the implementation of the EU waste management requirements, as landfill rates are extremely high and recycling rates very low, as well as improving the water management to ensure protection of water bodies and to prevent flash floods.
* Improving the air quality in the most urbanised areas by introducing systemic solutions for transport congestion.
* Improving the protection of habitats and species of EU interest by fully implementing the Natura 2000 instruments and strengthening the enforcement of the Birds Directive.

**Main Opportunities**

Malta could perform better on topics where there is already a good knowledge base and good practices. This applies in particular to:

* Supporting Small and Medium Enterprises (SMEs) to move towards a more circular economy.
* Improving compliance assurance by stepping up inspections and enforcement action.
* Investing in making the tourism sector more sustainable which is a double win: less environmental pressure and a more attractive tourist destination.

**Points of Excellence**

Where Malta is a leader on environmental implementation, innovative approaches could be shared more widely with other countries. Concrete examples are:

* The protection of traditional stone walls throughout Malta as Green Infrastructure delivering multiple benefits for agriculture and the environment.
* A national flood relief project, co-funded by the EU Cohesion Fund.

**Part I: Thematic Areas**

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

**Developing a circular economy and improving resource efficiency**

The 2015 Circular Economy Package emphasizes the need to move towards a lifecycle-driven ‘circular’ economy, with a cascading use of resources and residual waste that is close to zero. This can be facilitated by the development of, and access to, innovative financial instruments and funding for eco-innovation.

SDG 8invites countries to promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. SDG 9 highlights the need to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. SDG 12 encourages countries to achieve the sustainable management and efficient use of natural resources by 2030.

**Measures towards a circular economy**

Transforming our economies from linear to circular offers an opportunity to reinvent them and make them more sustainable and competitive. This will stimulate investments and bring both short and long-term benefits for the economy, environment and citizens alike[[5]](#footnote-5).

Malta's size and insularity pose a number of unique challenges. These include the difficulty to reap the benefits of economies of scale, a dependence on a very narrow range of exports, high transport costs in its economic transactions with mainland Europe, and heavy reliance on imported fossil fuels[[6]](#footnote-6). The country’s water resources are under severe stress, among others because of the semi-arid climate leading to chronic lack of natural water resources. Drinkable water supply is heavily dependent on desalination (which was significantly reduced over the last years but still consumes 3% of the country’s total electricity generation). Furthermore, despite significant investments made in waste management infrastructure, Malta’s specific characteristics continue to constrain the country’s ability to manage waste effectively[[7]](#footnote-7).

There is a clear scope for Malta to move to the circular economy model by bringing resources back into productive use, cutting waste and reducing dependence on uncertain supplies, which would improve resilience and competitiveness of the economy. Decoupling economic growth from resource use and its impacts offers the prospect of sustainable growth that will last.

Malta has announced to seek to contribute towards the circular economy and sustainability agendas[[8]](#footnote-8). EU legislation and public authorities’ support for ‘greening’ the economy and stimulating innovation have been the key drivers of eco-innovation in Malta. Since joining the EU in 2004, Malta has invested heavily in environmental infrastructure and regulation. The EU has also been providing an important source of funding in the environmental field, primarily through the Structural Funds.

In terms of resource productivity[[9]](#footnote-9) (how efficiently the economy uses material resources to produce wealth), Malta performs around 30 % below EU average, with 1.36 EUR/kg (EU average is 2) in 2015. Figure 1 shows a significant decrease since 2013.

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| **Figure 1: Resource productivity 2003-15[[10]](#footnote-10)** |
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The Green Economy Strategy and Action Plan of Malta were adopted in December 2015. The documents set out the Government’s vision of the green economy in Malta articulated around sustainable growth, efficient use of natural resources, increased economic resilience, green jobs and accessibility of the natural capital.

The Green Economy Strategy and Action Plan foresee prioritising efforts to manage waste in line with the waste hierarchy and to reduce the carbon impact of waste, developing a comprehensive Waste Prevention Programme, and working with businesses to promote waste reduction and re-use as part of a broader resource efficiency programme.

Proposed actions related to water management include the introduction of voluntary water audits in companies, coupled with a grant scheme to support investments targeting water efficiency (see also section 3 on water).

To promote green jobs, the Strategy proposes the development of a National Education for Sustainable Development Strategy by the end of 2016, mainstreaming sustainability in different training programmes.

A number of instruments are in place to promote R&D and innovation projects. Malta’s Smart Specialisation Strategy prioritises innovation in thematic areas such as tourism, maritime services, health, resource-efficient buildings, and aquaculture. The Strategy foresees the development of investment support schemes aimed at incentivising the adoption of best of breed ‘clean’ and ‘eco-technology’ solutions, as well as other ‘green financing’ mechanisms.

Box Good Practice: Water scarcity and drought[[11]](#footnote-11)

The FP7 project MARSOL - Demonstrating Managed Aquifer Recharge as a Solution to Water Scarcity and Drought (2013-2016) aims to stimulate the use of reclaimed water and other alternative sources in Managed Aquifer Recharge (MAR) systems and to optimise Water Resource Management through the storage of excess water or by influencing gradients.

Through interventions at 8 demonstration sites (including South Malta), MARSOL will demonstrate and compare the effectiveness, efficiency and sustainability of different technologies to increase the availability of freshwater under conditions of scarcity. Ultimately, the project aims to deliver a key technology to face the challenge of rising water scarcity in southern Europe and beyond.

**SMEs and resource efficiency**

Small and Medium-sized enterprises (SMEs) are engines for growth, innovation and jobs. Malta has around 29,000 SMEs. The SME sector is one of the very few in the EU to have expanded throughout the crisis. This growth is expected to continue for the near future: the number of SME employees in Malta is predicted to rise by almost 5 000 (6 %) in 2014-2016 and SME value added by 13 %.

Investing in innovative, cost-saving measures to reduce resource and energy use in Malta could result in substantial cost savings. Based on results of best practices in other Member States, the cost/benefit ratio between investments and SME cost savings can be up to 1:20. The application in Malta of programmes supporting resource efficiency in SMEs such as ENWORKS (UK) might result in cost savings per enterprise of over EUR 34,000 for energy firms and over EUR 84,000 for environmental technologies. Concerning four SME sectors (food & beverages; energy, power & utilities; environmental technologies; construction), there would be an average potential saving of EUR 46,000 per enterprise for in total 4,400 businesses (14% of all SMEs). For these sectors, such cost savings could amount to EUR 202 million annually. Getting to such savings requires an adequate investment climate, and hands-on, direct technical and financial support to SMEs[[12]](#footnote-12).

Direct support for SMEs on resource efficiency could be combined with financial support, to overcome the small project size limitation and the mismatch between asset life and available credit maturities by pooling of investment and risk and the use of public funding for credit-enhancement.

Malta's government is committed to enhance SMEs competitiveness by awareness-raising among SMEs of the opportunities generated by the green economy, promoting energy audits leading to resource efficiency, and supporting SMEs through the introduction of tax credits, grants, training and other similar schemes.

In the Flash 426 Eurobarometer "SMEs, resource efficiency and green markets" it is shown that 52% of Malta's SMEs have invested up to 5% of their annual turnover in their resource efficiency actions (EU28 average 50%), 23 % of them are currently offering green products and services (EU28 average 26%); 64% took measures to save energy (EU28 average 59%), 75% to minimise waste (EU28 average 60%), 47% to save water (EU28 average 44%), and 60% to save materials (EU28 average 54%). From a circular economy perspective, 59% took measures to recycle by reusing material or waste within the company (EU28 average 40%), 31% to design products that are easier to maintain, repair or reuse (EU28 average 22%) and 28% were able to sell their scrap material to another company (EU28 average 25%). The resource efficiency actions undertaken allowed the reduction of production costs in 41% of the Malta's SMEs (EU28 average 45%).

The Flash Eurobarometer shows that 29% of the SMEs in Malta have one or more full time employee working in a green job at least some of the time (EU28 average 35%). Malta has an average number of 2.4 full time green employees per SME (EU28 average 1.7%).

**Eco-innovation**

Eco-innovation brings financial benefits through the improved resource productivity and reduced costs of material and energy. High European environmental standards have contributed to a competitive advantage of the EU in the eco-industries, a sector which is expected to double worldwide by 2020, and where EU companies hold major shares of the world market. Europe's eco-industry has been one of the few sectors to continue growing during the economic crisis.

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| **Figure 2: Eco-Innovation Index 2015 (EU=100)[[13]](#footnote-13)** |
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The Maltese government has committed towards the adoption of eco-innovation solutions and is supporting eco-innovation activities mostly through provision of various incentives. However, there is much room for improvement. Malta’s composite eco-innovation index is 64, relative to the EU-average index of 100. The country’s ranking among the EU-28 fell from 18th place in 2013 to 25th in 2015 as shown in Figure 2.

**Tourism**

The tourism industry is one of the main pillars of Malta’s economy, generating income and creating employment. Tourism earnings account for approximately 26% of Malta’s services exports and the industry represents 30% of GDP. The Maltese tourism policy 2012-2016 puts sustainable tourism at the heart of its vision. Approximately 12,500 people work in the industry, which is 8.5% of the employed workforce (the highest in the EU – 1% is the EU average).

At the same time, the tourism sector contributes substantially to the environmental pressure (e.g. waste, transport) in Malta. In addition, traffic congestion & air pollution and management of Natura 2000 areas need to be dealt with to render Malta as a sustainable tourism destination. Part of Malta's rich biodiversity, a significant number of protected sites are relatively unspoiled (Gozo) and could therefore be prime destinations for high quality and sustainable tourism. Well-planned and managed tourism in these areas has a significant potential for generating income and jobs. At the same time, the impact of any large-scale tourism activities on N2000 conservation values, especially in vulnerable coastal areas, must be properly assessed and regulated.

Suggested action

* Stimulate investments in green products and services and the development of sustainable tourism.
* Make incentives for SME resource efficiency and eco-innovation more effective.

**Waste management**

Turning waste into a resource requires:

* Full implementation of Union waste legislation, which includes the waste hierarchy; the need to ensure separate collection of waste; the landfill diversion targets etc.
* Reducing per capita waste generation and waste generation in absolute terms.
* Limiting energy recovery to non-recyclable materials and phasing out landfilling of recyclable or recoverable waste.

SDG 12 invites countries to substantially reduce waste generation through prevention, reduction, recycling and reuse, by 2030.

The EU's approach to waste management is based on the "waste hierarchy" which sets out an order of priority when shaping waste policy and managing waste at the operational level: prevention, (preparing for) reuse, recycling, recovery and, as the least preferred option, disposal (which includes landfilling and incineration without energy recovery).

The progress towards reaching recycling targets and the adoption of adequate WMP/WPP[[14]](#footnote-14) should be the key items to measure the performance of Member States. This section focuses on management of municipal waste for which EU law sets mandatory recycling targets.

Figure 3 depicts the municipal waste by treatment in Malta in terms of kg per capita.Municipal[[15]](#footnote-15) waste generation in 2014 is high compared to the EU average (600 kg/y/inhabitant, compared to 475 kg/y/inhabitant on average).[[16]](#footnote-16)

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| **Figure 3: Municipal waste by treatment in Malta 2007-14[[17]](#footnote-17)** |
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The recycling and composting rate is only 12%, far below the EU average of 44% and the 2020 target (50%). Figure 4 shows that Malta will have to take decisive measures to develop recycling in the coming years[[18]](#footnote-18).

Data from 2014[[19]](#footnote-19) show that with 88%, the landfilling rateis more than three timesthe EU average of 28% (data from 2014). New data provided by Malta suggest a recent improvement towards 79.7%. Malta's heavy reliance on waste disposal is not in line with the European targets and definitely an unnecessary pressure for its limited land. There has been only one mechanical and biological management facility (MBT) to treat mixed household waste, until a second one was developed with the help of the EU Cohesion funds and started to operate in 2016. Untreated residual waste plus non-recycled outputs from MBT are disposed in Malta’s managed landfills. To meet EU targets, it will need to build the required infrastructure. Revenues from a gradually increasing landfill tax (which would also help diverting waste from landfills) in conjunction with a better allocation of Cohesion Policy funds (which need to favour the higher solutions in the waste hierarchy) could contribute to this.

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| **Figure 4: Recycling rate of municipal waste 2007-14[[20]](#footnote-20)** |
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Malta's 2014 Waste Management Plan recognises the large problems the country is facing with regard to waste management and includes useful policy actions which when implemented would certainly help to improve the situation. The Maltese environmental authorities have launched several actions aiming to improve separate collection.

Full implementation of the existing waste legislation could create more than 1.100 jobs in Malta and increase the annual turnover of the waste sector by EUR 116 million. Moving towards the targets of the Roadmap on resource efficiency could create over 1.200 additional jobs and increase the annual turnover of the waste sector by EUR 134 million.[[21]](#footnote-21)

In order to help bridging the implementation gap in Malta, the Commission has delivered a roadmap for compliance in which economic instruments play a crucial role[[22]](#footnote-22).

Suggested action

* Introduce a landfill tax and gradually increase it to divert recyclable waste from the landfills. Use the revenues to support the separate collection and alternative infrastructure in conjunction with a better allocation of the cohesion policy funds to the first steps of waste hierarchy. Avoid building excessive infrastructure for the treatment of residual waste.
* Step up the efforts on implementation of the separate collection obligation to increase recycling rates (e.g. reform of door-to-door separate waste collection). Use economic instruments (e.g. *Pay As You Throw* schemes) and education campaigns to support transition towards more recycling.
* Strengthen and empower enforcement capability, including inspection and enforcement to ensure subscribing to collection services.

**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, restore ecosystems and their services in so far as feasible, and step up efforts to avert global biodiversity loss. The EU Birds and Habitats Directives aim at achieving favourable conservation status of protected species and habitats.

SDG 14 requires countries to conserve and sustainably use the oceans, seas and marine resources, while SDG 15 requires countries to protect, restore and promote the sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

The 1992 EU Habitats Directive and the 1979 Birds Directive are the cornerstone of the European legislation aimed at the conservation of the EU's wildlife. Natura 2000, the largest coordinated network of protected areas in the world, is the key instrument to achieve and implement the Directives' objectives to ensure the long-term protection, conservation and survival of Europe's most valuable and threatened species and habitats and the ecosystems they underpin.

The adequate designation of protected sites as Special Ares of Conservation (SAC) under the Habitats Directive and as Special Protection Areas (SPA) under the Birds Directive is a key milestone towards meeting the objectives of the Directives. The results of Habitats Directive Article 17 and Birds Directive Article 12 reports and the progress towards adequate Sites of Community Importance (SCI)-SPA and SAC designation[[23]](#footnote-23) both in land and at sea, should be the key items to measure the performance of Member States.

Malta hosts 30 habitat types and 52 species covered by the Habitats Directive. The country also hosts populations of 4 threatened bird species listed in the Birds Directive Annex I.

By early 2016, 13.2 % of the national land area of Malta was covered by Natura 2000 (EU average 18.1 %), with Birds Directive SPAs covering 4.2 % (EU average 12.3 %) and Habitats Directive SCIs covering 12.8 % (EU average 13.8 %). Based on the situation until December 2014, while only few scientific reserves are found as concerns the terrestrial component of the SCIs network, there are major insufficiencies for the marine component of the SCIs part of the Natura 2000 network[[24]](#footnote-24) as depicted in Figure 5. [[25]](#footnote-25)[[26]](#footnote-26)

Although the 6-year deadline established by the Habitats Directive to designate SACs and establish appropriate conservation objectives and measures has expired, Malta has not designated any SAC and it has defined management plans only for 7 SCIs[[27]](#footnote-27); however, the government has informed that it is currently working on the draft management plans for the other areas.

According to the latest report on the conservation status of habitats and species covered by the Habitats Directive[[28]](#footnote-28), 43% of the habitats' biogeographic assessments were favourable in 2013 (EU 27: 16 %). On the other hand, 50 % are considered to be unfavourable–inadequate[[29]](#footnote-29) (EU27: 47%) and 7 % are unfavourable – bad (EU27: 30%). As for the species, 40 % of the assessments were favourable in 2013 (EU 27: 23%) 37% at unfavourable-inadequate (EU27: 42%) and 8% unfavourable-bad status (EU27: 18%). This is depicted in Figure 6[[30]](#footnote-30). Only 9% of the unfavourable assessments for species were showing positive trends in 2013 and no habitats in unfavourable status was showing positive trends in 2013.

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| **Figure 5: Sufficiency assessment of SCI networks in Malta based on the situation until December 2013 (%)[[31]](#footnote-31)** |
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The main pressures and threats for habitats identified in the 2013 report were human intrusions and disturbances, geological events, natural catastrophes, and invasive, other problematic species and genes. The main pressures and threats for species were natural biotic and abiotic processes, invasive, other problematic species and genes, and human intrusions and disturbances.

Malta has over the past three years strengthened the enforcement system to reduce bird-related crime, including, in particular, illegal killing of protected species. However, concerns regarding the implementation of the Birds Directive in Malta remain, in particular in relation to the regular use of hunting and trapping derogations, and to the reported incidents the enforcement authorities are confronted with. These have generated many complaints from Maltese and EU citizens to the European Commission, and resulted in several infringement procedures.[[32]](#footnote-32).

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| **Figure 6: Conservation status of habitats and species in Malta in 2007/2013 (%)[[33]](#footnote-33)** |
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| Figure 7 illustrates that bird species breeding in Malta show overall a favourable situation, although 12% of the species has decreasing populations. On the three wintering species, short term trends are unknown.  **Figure 7: Short-term population trend of breeding and wintering bird species in Malta in 2012 (%)[[34]](#footnote-34)** |
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Suggested action

* Complete the Natura 2000 designation process and put in place clearly defined conservation objectives and the necessary conservation measures for the sites and provide adequate resources for their implementation in order to maintain/restore species and habitats of community interest to a favourable conservation status across their natural range.
* Develop and promote smart and streamlined implementation approaches, in particular as regards site and species permitting procedures, ensuring the necessary knowledge and data availability. Strengthen communication with stakeholders.
* Ensure that hunting and trapping practices remain aligned to the requirements of the Birds Directive by continuing the enforcement efforts, more effective regulation and also by investing in education and awareness-raising programs.

**Estimating Natural Capital**

The EU Biodiversity Strategy to 2020 calls on the Member States to map and asses the state of ecosystems and their services[[35]](#footnote-35) in their national territory by 2014, assess the economic value of such services, and promote the integration of these values into accounting and reporting systems at EU and national level by 2020.

Malta has carried out a preliminary identification of key ecosystems and ecosystem services and work has commenced to implement the measures relating to MAES[[36]](#footnote-36) in Malta’s National Biodiversity Strategy and Action Plan 2012-2020. This work involves prioritising ecosystems and ecosystem services for mapping and assessment.

Work on natural capital accounting is at an initial stage of development.

Suggested action

* Strengthen support for the mapping and assessment of ecosystems and their services, valuation and development of natural capital accounting systems.



**Green Infrastructure**

The EU strategy on green infrastructure[[37]](#footnote-37) promotes the incorporation of green infrastructure into related plans and programmes to help overcome fragmentation of habitats and preserve or restore ecological connectivity, enhance ecosystem resilience and thereby ensure the continued provision of ecosystem services.

Green Infrastructure provides ecological, economic and social benefits through natural solutions. It helps to understand the value of the benefits that nature provides to human society and to mobilise investments to sustain and enhance them.

Malta’s National Biodiversity Strategy and Action Plan 2012-2020 explicitly address Green Infrastructure and connectivity. Green infrastructure and references to “greening open spaces”; “developing ecological corridors” and “improving the quality of design, and life, in urban areas, by providing quality green open areas" are included in the Strategic Plan for the Environment and Development (SPED) for Malta and Malta’s National strategy on Climate Change Adaptation. The National Environment Policy also promotes green, connected urban open space (measure 2.2.21) and the policy on greening our cities in section 2.4. [[38]](#footnote-38)

Currently, Malta’s Green infrastructure is seen as a holistic framework for improving the ecological coherence of Natura 2000 via its integration into the broader landscape, and as a result curbing habitat fragmentation; improving adaptation to climate change; and promoting integrated flood management.

Implementation of Green Infrastructure policy has only recently started in Malta, therefore much remains to be done. An example of good practice is the national policy to protect ecological corridors in the form of rubble walls in agricultural areas. These traditional stone walls, which are found throughout Malta, are a good example of how integrated design of Green Infrastructure helps to deliver multiple benefits such as storm water management, maintenance of the water table and interconnected wildlife refuges and benefit agriculture production and minimising soil erosion.

Malta has also benefitted from a number of LIFE projects dedicated to conservation and improvement of the coastal areas. As a country that relies heavily on its marine natural capital for trade and for tourism, investment in the coastal areas has generated benefits for nature, for the local economy and for jobs.

**Soil protection**

The EU Soil Thematic Strategy highlights the need to ensure a sustainable use of soils. This requires the prevention of further soil degradation and the preservation of its functions, as well as the restoration of degraded soils. The 2011 Road Map for Resource-Efficient Europe, part of Europe 2020 Strategy provides that by 2020, EU policies take into account their direct and indirect impact on land use in the EU and globally, and the rate of land take is on track with an aim to achieve no net land take by 2050.

SDG 15 requires countries to combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land-degradation-neutral world by 2030.

Soil is an important resource for life and the economy. It provides key ecosystem services including the provision of food, fibre and biomass for renewable energy, carbon sequestration, water purification and flood regulation, the provision of raw and building material. Soil is a finite and extremely fragile resource and increasingly degrading in the EU. Land taken by urban development and infrastructure is highly unlikely to be reverted to its natural state; it consumes mostly agricultural land and increases fragmentation of habitats. Soil protection is indirectly addressed in existing EU policies in areas such as agriculture, water, waste, chemicals, and prevention of industrial pollution.

The annual land take rate (growth of artificial areas) as provided by CORINE Land Cover was 0.03% in Malta over the period 2006-12, well below the EU average (0.41%). It represented 3 hectares per year[[39]](#footnote-39). The percentage of built up land in 2009 was 15.23%, well above the EU average (3.23%)[[40]](#footnote-40). The soil water erosion rate in 2010 was 5.39 tonnes per ha per year, well above EU-28 average (2.46 tonnes)[[41]](#footnote-41).

Figure 8 shows the different land cover types in Malta in 2012.

There are still not EU-wide datasets enabling the provision of benchmark indicators for soil organic matter decline, contaminated sites, pressures on soil biology and diffuse pollution. An updated inventory and assessment of soil protection policy instruments in Malta and other EU Member States is being performed by the EU Expert Group on Soil Protection.

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| **Figure 8: Land Cover types in Malta in 2012[[42]](#footnote-42)** |
| MT_CS_CLC_types |

**Marine protection**

The EU Coastal and Marine Policy and legislation require that by 2020 the impact of pressures on marine waters is reduced to achieve or maintain good environmental status and coastal zones are managed sustainably.

SDG 14 requires countries to conserve and sustainably use the oceans, seas and marine resources for sustainable development.

The Marine Strategy Framework Directive (MSFD)[[43]](#footnote-43) aims to achieve Good Environmental Status (GES) [[44]](#footnote-44) of the EU's marine waters by 2020 by providing an ecosystem approach to the management of human activities with impact on the marine environment. The Directive requires Member States to develop and implement a marine strategy for their marine waters, and cooperate with Member States sharing the same marine region or subregion.

As part of their marine strategies, Member States had to make an initial assessment of their marine waters, determine GES and establish environmental targets by July 2012. They also had to establish monitoring programmes for the on-going assessment of their marine waters by July 2014. The next element of their marine strategy is to establish a Programme of Measures (2016). The Commission assesses whether these elements constitute an appropriate framework to meet the requirements of the MSFD.



Malta's marine waters are part of the marine region of the Mediterranean Sea. Malta is party to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention). The Mediterranean Sea region has been identified by the EEA in its 2015 State of the Environment report as one of the main climate change hotspots (i.e. one of the areas most responsive to climate change) due to semi-arid climatic characteristics of the region leading to water scarcity, concentration of economic activities in coastal areas, and reliance on climate-sensitive agriculture. The introduction of invasive alien species presents an important threat in the Mediterranean Sea Region with the number of invasive alien species increasing significantly since 1970. Finally, the unique biodiversity of the Mediterranean Sea Region is also threatened by pollution from land-based sources, such as discharges of excess nutrients and hazardous substances, marine litter, over-fishing, and degradation of critical habitats.

With regards to specificities of the implementation of the MSFD in Malta, GES definitions are mainly qualitative and in some cases contain caveats that indicate a low level of ambition. In addition, the approach used to define GES varies and in most of the cases no threshold values, baselines or trends are provided. Thus, GES was not measurable[[45]](#footnote-45). It is therefore too early to say whether Maltese waters are in good status as there were weaknesses in identifying what GES is in the first place.

Malta established a monitoring programme of its marine waters in 2014. However, because this monitoring programme was reported late to the Commission, Malta's monitoring programme was not evaluated in the latest Commission's assessment[[46]](#footnote-46).

In 2012, Maltese marine protected areas covered 193.3 km2 of its marine waters in the Ionian and Central Mediterranean Sea[[47]](#footnote-47). However, Malta reported that it designated an additional 9 marine protected sites in 2016 bringing the total area of coverage to 3487km².

In its report on the implementation of the MSFD[[48]](#footnote-48), the Commission provided guidance to assist Malta in its implementation of the Marine Strategy Framework Directive. However, because of the late reporting of Malta's monitoring programme, the Commission's guidance only concerns Malta's good environmental status, targets and initial assessment.

Suggested action

* Continue work to improve the definitions of GES, including through regional cooperation by using the work of the relevant Regional Sea Convention.
* Address knowledge gaps.
* Further develop approaches assessing (and quantifying) impacts from the main pressures in order to lead to improved and more conclusive assessment results for 2018 reporting.
* Urgently report and implement its programme of measures[[49]](#footnote-49)
* Ensure that its monitoring programme is implemented without delay, and is appropriate to monitor progress towards the GES.

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

**Air quality**

The EU Clean Air Policy and legislation require that air quality in the Union is significantly improved, moving closer to the WHO recommended levels. Air pollution and its impacts on ecosystems and biodiversity should be further reduced with the long-term aim of not exceeding critical loads and levels. This requires strengthening efforts to reach full compliance with Union air quality legislation and defining strategic targets and actions beyond 2020.

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| **Figure 9: Attainment situation for PM10, NO2 and O3 in 2014** |
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The EU has developed a comprehensive suite of air quality legislation[[50]](#footnote-50), which establishes health-based standards and objectives for a number of air pollutants. As part of this, Member States are also required to ensure that up-to-date information on ambient concentrations of different air pollutants is routinely made available to the public. In addition, the National Emission Ceilings Directive provides for emission reductions at national level that should be achieved for main pollutants.

The emission of several air pollutants has decreased significantly in Malta[[51]](#footnote-51). Reductions between 1990 and 2014 for sulphur oxides (‑68%), nitrogen oxides[[52]](#footnote-52) (-1%) as well as ammonia (-16%) ensure air emissions for these pollutants are within the currently applicable national emission ceilings[[53]](#footnote-53). While total emissions of volatile organic compounds increased with 65%, this pollutant is within its currently applicable national emission ceiling.

In the last years, air quality in Malta is reported to be generally good, with exceptions. Nevertheless, for the year 2013, the European Environment Agency estimated that about 230 premature deaths were attributable to fine particulate matter [[54]](#footnote-54) concentrations and 20 to ozone concentrations[[55]](#footnote-55). This is due also to exceedances above the EU air quality standards such as shown in Figure 9[[56]](#footnote-56).

For 2014, exceedances above the EU air quality standards have been registered related to target values and the long-term objectives regarding ozone[[57]](#footnote-57) concentration[[58]](#footnote-58).

The external cost of traffic congestion has been estimated at EUR 274 million per year for 2012 and EUR 317 million in 2020 if there are no policy changes[[59]](#footnote-59). Besides economic, this situation has considerable environmental impacts as well. Indeed, it is estimated that the health-related external costs from air pollution in Malta are above EUR 182 million/year (income adjusted, 2010), which include not only the intrinsic value of living a full health life but also direct costs to the economy. These direct economic costs relate to 44 thousand workdays lost each year due to sickness related to air pollution, with associated costs for employers of EUR 5 million/year (income adjusted, 2010), for healthcare of above EUR 0.6 million/year (income adjusted, 2010), and for agriculture (crop losses) of EUR 2 million/year (2010)[[60]](#footnote-60). These costs could be significantly reduced by stepping up pollution control or prevention measures.

Suggested action

* Develop a comprehensive strategy and action plan to tackle traffic congestion in order to decrease air pollution and related health costs.

**Noise**

The Environmental Noise Directive provides for a common approach for the avoidance, prevention and reduction of harmful effects due to exposure to environmental noise.

Excessive noise is one of the main causes of health issues[[61]](#footnote-61). To alleviate this, the EU *acquis* sets out several requirements, including assessing the exposure to environmental noise through noise mapping, ensuring that information on environmental noise and its effects is made available to the public, and adopting action plans with a view to preventing and reducing environmental noise where necessary and to preserving the acoustic environment quality where it is good.

Malta's implementation of the Environmental Noise Directive is delayed. For the agglomeration[[62]](#footnote-62), the noise mapping for the most recent reporting round, for the reference year 2011, is complete. However, the action plan for noise management in the current period has not been adopted for the agglomeration. For roads, the Maltese authorities have fulfilled all their obligations.

**Water quality and management**

The EU water policy and legislation require that the impact of pressures on transitional, coastal and fresh waters (including surface and ground waters) is significantly reduced to achieve, maintain or enhance good status of water bodies, as defined by the Water Framework Directive; that citizens throughout the Union benefit from high standards for safe drinking and bathing water; and that the nutrient cycle (nitrogen and phosphorus) is managed in a more sustainable and resource-efficient way.

SDG 6 encourages countries to ensure availability and sustainable management of water and sanitation for all.

The main overall objective of EU water policy and legislation is to ensure access to good quality water in sufficient quantity for all Europeans. The EU water *acquis*[[63]](#footnote-63) seeks to ensure good status of all water bodies across Europe by addressing pollution sources (from e.g. agriculture, urban areas and industrial activities), physical and hydrological modifications to water bodies) and the management of risks of flooding.

River Basin Management Plans (RBMPs) are a requirement of the Water Framework Directive and a means of achieving the protection, improvement and sustainable use of the water environment across Europe. This includes surface freshwaters such as lakes and rivers, groundwater, estuaries and coastal waters up to one nautical mile.

Malta has provided information to the Commission from its second RBMP in 2016. However, as the Commission has not yet been able to validate this information for all Member States, it is not reported here.

In its first generation RBMP Malta reported the status of 9 coastal and 15 groundwater bodies. 71% of natural surface water bodies (coastal areas) achieve a good or high ecological status[[64]](#footnote-64). Only 13% of groundwater bodies achieve good chemical status[[65]](#footnote-65) and 73% of groundwater bodies are in good quantitative status[[66]](#footnote-66). The main pressure on Malta's surface water is diffuse pollution[[67]](#footnote-67) affecting 67% of water bodies followed by point sources of pollution affecting 56% and coastal management affecting 33% of water bodies.

This first Maltese RBMP has a number of deficiencies in view of the uncertainty about the status, pressures and effectiveness of Programmes of Measures. In particular there are weaknesses in monitoring and methods for assessment and classification of the status of coastal waters.[[68]](#footnote-68) Private abstraction is an important pressure on groundwater, whereas the quantitative status is not monitored adequately. Exemptions are applied without transparent justifications. The planned measures are expected to result in improvement of ecological status of surface water bodies by 14%, chemical status of groundwater by 7% and quantitative status by 13%.

As regards drinking water, Malta reaches very high compliance rates of 99-100% for microbiological and chemical parameters, but shows a 90.1% compliance rate with indicator parameters laid down in the Drinking Water Directive[[69]](#footnote-69). The relatively low compliance rates for indicator parameters in drinking water in Malta are predominantly caused by chloride and sodium due to the likely intrusion of sea water, but which does not pose a risk to health.

As shown in Figure 10, in 2015, in Malta out of 87 bathing waters, 97.7 % were of excellent quality, 2.3 % of good quality, showing a slight decrease since 2014[[70]](#footnote-70). All bathing waters had at least *sufficient quality* in 2015.

Since 2012, 100% of the waste water load in Malta was connected to a collecting system. However, the load collected is not treated in compliance with EU requirements as regards the secondary treatment requirement and the more stringent treatment. Malta has indicated that the non-compliance is due to an excess of farm manure discharges in collecting systems leading to poor performance of the plants where these discharges enter. Malta reported that it published a Farm Waste Management Plan in March 2016, whose aim is to tackle this specific issue.

In a water-scarce country such as Malta, many economic activities, including the touristic sector, as well as industry and manufacturing, are heavily dependent on a stable water supply. However, Malta’s groundwater resources are heavily exploited, at a rate well above the natural recharge, and the island’s aquifers are slowly being invaded by seawater.[[71]](#footnote-71)

The economic argument for using tariffs to regulate groundwater use, in addition to other measures, is strong. If groundwater resources continue to deteriorate, both in qualitative and quantitative terms, as it is happening today, drinking water will have to be sourced almost entirely from desalination, which is definitely more expensive. The costs of substituting groundwater with desalinated water were estimated around EUR 1.7 million per year (2006 estimate), based on energy costs. Malta has informed the Commission that ongoing energy efficiencies in the water sector show a decrease in energy demands and therefore energy costs

In addition, groundwater bodies are seriously contaminated by nitrates from the downward movement of fertilizers and animal waste into the aquifer.

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| **Figure 10: Bathing water quality 2012 – 2015[[72]](#footnote-72)** |
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With regards to nitrates contamination, despite the existence of rules for water protection, implementation on the ground and enforcement remain very challenging. The whole of Malta is designated as Nitrate Vulnerable Zone under the EU Nitrates Directive and is subject to restrictions upon management under the Nitrates Action Plan for Malta and related national legislation. Malta has informed that the second RBMP also has a focus in this.

Floods in Malta are of the flash flood type[[73]](#footnote-73) and 13 floods occurred between 2002-2013, of which one (2003) with an estimated damage of EUR 30 million[[74]](#footnote-74). Malta has received EUR 0.96 million from the EU Solidarity Fund for the damage caused by storm and floods in 2013. A National Flood Relief project, co-funded by the EU Cohesion Fund, is being implemented.

Suggested action

* Improve monitoring and status assessment under the Water Framework Directive[[75]](#footnote-75). Better justify the exemptions to the Water Framework Directive environmental objectives applied on the basis of article 4(4). Further improve the RBMP Programme of Measures to address all relevant pressures and implementation gaps, in particular linked to agricultural pollution by nutrients and over-abstraction of groundwater. Measures should be properly financed.
* Combine flood management with water retention in a comprehensive way, considering also the serious water scarcity problems.
* Strengthen control and enforcement of measures to prevent and reduce nitrate pollution.

**Enhancing the sustainability of cities**

The EU Policy on the urban environment encourages cities to implement policies for sustainable urban planning and design, including innovative approaches for urban public transport and mobility, sustainable buildings, energy efficiency and urban biodiversity conservation.

SDG11 aims at making cities and human settlements inclusive, safe, resilient and sustainable.

Europe is a Union of cities and towns; around 75% of the EU population are living in urban areas.[[76]](#footnote-76) The urban environment poses particular challenges for the environment and human health, whilst also providing opportunities and efficiency gains in the use of resources.

The Member States, European institutions, cities and stakeholders have prepared a new Urban Agenda for the EU (incorporating the Smart Cities initiative) to tackle these issues in a comprehensive way, including their connections with social and economic challenges. At the heart of this Urban Agenda will be the development of twelve partnerships on the identified urban challenges, including air quality and housing[[77]](#footnote-77).

The European Commission will launch a new EU benchmark system in 2017[[78]](#footnote-78).

The EU stimulates green cities through awards and funding, such as the EU Green Capital Award aimed at cities with more than 100,000 inhabitants and the EU Green Leaf initiative aimed at cities and towns, with between 20,000 and 100,000 inhabitants.



Around 34 per cent of Malta is built up area. It is the country with the highest proportion of built up areas within the whole EU. Given the limited space available, land use and urban planning issues are at the centre of discussions in Malta.

Malta also has 9.5 per cent of the total road network heavily congested when compared to the EU average of 1.7 per cent. The average number of seconds of delay per km is estimated at 16.93 seconds when the European average is 5.74 seconds. The results also suggest the strongest deterioration in the levels of congestion of all member states. This growth in car dependence has had impacts on the island’s environment and public health (see also the section on air quality).

Making cities more sustainable can be stimulated in various ways. Recurring events are able to energise follow-up activities. An example is the Valletta Green Festivalwhich takes place since 2014 and aims to raise awareness, improve and contribute towards the ecological aspects of Malta's capital city and that of other towns in Malta and Gozo. Another notable initiative was the international Sustainable Built Environment conference which took place on 16-18 March 2016 and focused on new opportunities. Malta will be using 2014-20 ESIF to support clean urban infrastructure and promotion.

**International agreements**

The EU Treaties require that the Union policy on the environment promotes measures at the international level to deal with regional or worldwide environmental problems.

Most environmental problems have a transboundary nature and often a global scope and they can only be addressed effectively through international co-operation. International environmental agreements concluded by the Union are binding upon the institutions of the Union and on its Member States. This requires the EU and the Member States to sign, ratify and effectively implement all relevant multilateral environmental agreements (MEAs) in a timely manner. This will also be an important contribution towards the achievement of the SDGs, which Member States committed to in 2015 and include many commitments contained already in legally binding agreements.

The fact that some Member States did not sign and/or ratify a number of MEAs compromises environmental implementation, including within the Union, as well as the Union’s credibility in related negotiations and international meetings where supporting the participation of third countries to such agreements is an established EU policy objective. In agreements where voting takes place it has a direct impact on the number of votes to be cast by the EU. Currently, Malta has signed but not yet ratified the Stockholm Convention on Persistent Organic Pollutants, the Offshore Protocol of the Barcelona Convention[[79]](#footnote-79) and the Protocol on Integrated Coastal Zone Management.

It has neither signed nor ratified three agreements under the Convention on Long-range Transboundary Air Pollution: the Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone, the Persistent Organic Pollutions Protocol and the Heavy Metals Protocol. The same applies to the Rotterdam Convention on a Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, the Helsinki Convention on Industrial Accidents, the African-Eurasian Migratory Waterbird Agreement, the Nagoya Protocol[[80]](#footnote-80), and the International Convention for the Regulation of Whaling.

Suggested action

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

**Part II: Enabling Framework: Implementation Tools**

**4. Market based instruments and investment**

**Green taxation and environmentally harmful subsidies**

The Circular Economy Action Plan encourages the use of financial incentives and economic instruments, such as taxation to ensure that product prices better reflect environmental costs. The phasing out of environmentally harmful subsidies is monitored in the context of the European Semester and in national reform programmes submitted by Member States.

Taxing pollution and resource use can generate increased revenue and bring important social and environmental benefits.

Expressed as a proportion of GDP, Malta ranked 10th among the EU-28 in 2014 in terms of revenue derived from environmental taxes. Malta ranked low, in 23rd place, for the percentage share of GDP from energy taxes, but was in 2nd place in terms of percentage share of GDP from transport taxes (excluding fuel).

Malta is one of the EU countries that could benefit from a redesign of environment-related taxation, among others because of its subsidies on company cars. A 2016 study[[81]](#footnote-81) suggests that there is considerable potential for shifting taxes from labour to environmental taxes in Malta. Under a good practice scenario[[82]](#footnote-82), these taxes could generate an additional EUR 0.05 billion in 2018, rising to EUR 0.11 billion in 2030 (both in real 2015 terms). This is equivalent to 0.57% and 0.83% of GDP in 2018 and 2030, respectively. In the same year environmental tax revenues accounted for 8.51% of total revenues from taxes and social-security contributions (EU 28 average: 6.35%) as shown in Figure 11.

Using the full potential of taxing pollution and resource use would not only bring in additional revenues to substitute for cuts in spending and therefore help achieving a similar net budgetary outcome, but also help discouraging activities that will bring additional cost in the future in terms of clean up, health costs, etc. Green taxes generate sizeable revenues, are simple in implementation, and have a useful additional function in the total policy package.

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| **Figure 11: Environmental tax revenues as a share of total revenues from taxes and social contributions (excluding imputed social contributions) in 2014[[83]](#footnote-83)** |
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It should be noted, however, that specific national circumstances will determine what is feasible in practice, and that changes in tax policy should be preceded by an assessment to identify potential negative distributional impacts.

Compared to other Member States, Malta could investigate if further taxation of transport fuels, a non-hazardous landfill tax, and a water abstraction tax or charge would have the dual benefit of improving the environment and raising additional revenues.

In 2013 all Member States agreed to phase out environmentally harmful subsidies 'without delay'. Malta has not yet presented a policy programme with such a target. Harmonisation of fuel taxes and reducing car taxation subsidies could be part such a programme.

**Green Public Procurement**

The EU green public procurement policies encourage Member States to take further steps to reach the target of applying green procurement criteria to at least 50% of public tenders.

Green Public Procurement (GPP) is a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life-cycle when compared to goods, services and works with the same primary function that would otherwise be procured.

The purchasing power of public procurement in the EU equals to approximately 14% of GDP[[84]](#footnote-84). A substantial part of this money is spent on sectors with high environmental impact such as construction or transport, so GPP can help to significantly lower the impact of public spending and foster sustainable innovative businesses. The Commission has proposed EU GPP criteria[[85]](#footnote-85).

Malta adopted a National Acton Plan (NAP) in August 2011. The review process started in 2015. There is no specific national legislation concerning GPP, however an administrative procedure is in place whereby all contracting authorities are required to complete a GPP checklist prior to tender publication. A circular has been issued in December 2014 outlining the decentralization of administrative responsibilities to all line ministries with respect to GPP. Each ministry has nominated a GPP Coordinator with a remit to ensure that all tenders issued by that ministry are in accord with the national GPP criteria.[[86]](#footnote-86)

During 2015, the Green Public Procurement Office within the Ministry for Sustainable Development, the Environment and Climate Change (MSDEC) continued its mainstreaming mainly through substantive training sessions across all Government sectors. According to Malta[[87]](#footnote-87), this led to a more sustainable public expenditure model through the inclusion of the national GPP criteria. GPP criteria have been developed at the national level for 18 product groups, for which the NAP establishes targets ranging from 10 % up to 100 %.

Additionally, actions on GPP will continue in 2016 with an emphasis on the development of the second National Action plan to further integrate resource efficiency and sustainable production and consumption principles into public expenditure.

**Investments: the contribution of EU funds**

European Structural and Investment Funds Regulations provide that Member States to promote environment and climate objectives in their funding strategies and programmes for economic, social and territorial cohesion, rural development and maritime policy, and reinforce the capacity of implementing bodies to deliver cost-effective and sustainable investments in these areas.

Making good use of the European Structural and Investment Funds (ESIF)[[88]](#footnote-88) is essential to achieve the environmental goals and integrate these into other policy areas. Other instruments such as the Horizon 2020, the LIFE programme and the EFSI[[89]](#footnote-89) may also support implementation and spread of best practice.

In 2007-2013, EU funding (European Regional Development Fund and Cohesion Fund) to the environmental sector was very important, EUR 89.2 million for climate change and resource efficient and EUR 160.9 million for safeguarding the environment and risk prevention, supporting key infrastructure investments which contributed to the improvement of the environment conditions in Malta. Examples of these are Malta's South Sewage Treatment facility as well as other investments in solid waste management and flash flood risk prevention infrastructure.

The Partnership Agreement (PA) 2014-2020 was agreed in October 2014. The main environmental challenge is the non-fulfilment of the water ex ante conditionality which aims to ensure that Malta will ensure the existence of a water pricing policy which provides adequate incentives for users to use water resources efficiently and an adequate contribution of the different water uses to the recovery of the costs of water services at a rate determined in the approved river basin management plan for investment supported by the programmes.[[90]](#footnote-90).

The PA implies investing EUR 729 million in total Cohesion Policy funding over 2014-2020 (current prices, including EUR 17 million for European Territorial Cooperation funding and EUR 3.9 million for the FEAD allocation). Malta also receives EUR 97.3 million for rural development and EUR 22.6 million for fisheries and the maritime sector.

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| **Figure 12: European Structural and Investment Funds 2014-2020: Budget Malta by theme, EUR billion**[[91]](#footnote-91) |
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With regard to environmental expenditure, the allocation for Thematic Objective (TO) 4 (low carbon economy) is EUR 46 million (ERDF) plus EUR 8.4 million (EAFRD/EMFF), for TO5 (adaptation to climate change and prevention and risk management) EUR 15 million (EAFRD), and for TO6 (environment and cultural heritage) EUR 250 million (EUR 77 million ERDF, EUR 141 million CF, EUR 20 million EAFRD, EUR 12 million EMFF). EUR 28.4 million (ERDF) plus EUR 76 million (CF) is allocated for TO7 (sustainable transport). Figure 12 depicts the 2014-2020 EU Structural and Investment Funds budget allocation for Malta.

EUR 58 million ERDF and CF will contribute to mitigation and adaptation to climate change.

The expected results from ERDF and CF investments in the environmental sector include that 69,000 tonnes/year of additional waste recycling capacity will be created; 32000 additional persons will be served by improved water supply; 10 Hectares of land will be rehabilitated.

On this basis, in 2014-2020, Malta will manage three operational programmes (OPs) under EU Cohesion Policy. The ERDF/CF OP (adopted December 2014) contains most of the environmental investments.

The National Rural Development Program of Malta, its EARDF part, amounts to EUR 97.3 million. Budget for agri-environmental-climate measures represents 39% of the total EAFRD budget (but it is to cover only 671 ha, which is very low percentage of utilized agricultural area, ca 5%). The measures list the most basic, good standard practice to be supported, by highest rates per ha in the whole EU. The RDP addresses nutrient overload in water bodies, among others by targeting livestock farming and prioritising investments in manure storage.

Malta did not programme specific measures on compensation for limitations emanating from implementation of Natura 2000 (nor WFD). The only dedicated support for Natura 2000 on agricultural land is supporting pollination services (by domestic bees). Small forestry measure includes afforestation by native endemic species, which is appreciated.

With regard to the integration of environmental concerns into the Common Agricultural Policy (CAP), the two key areas are, first, using Rural Development funds to pay for environmental land management and other environmental measures, while avoiding financing measures which could damage the environment; and secondly, ensuring an effective implementation of the first pillar of the CAP with regard to cross compliance and 1st pillar 'greening'. 30 % of direct payment envelope (out of total EUR 30.7 million 2015-2020[[92]](#footnote-92) is allocated to greening practices beneficial for the environment. An environmentally ambitious implementation of 1st pillar greening would clearly help to improve the environmental situation in areas not covered by rural development, including intensive area, and if appropriate Malta could review its implementation of this.

For 2015 Malta proposed to allow 7 elements laid down by the regulation as Ecological Focus Area (out of 19- 9 of which are landscape features). However, in the end the only ones activated (as being responded by farmers) were land laying fallow and - less ambitious - nitrogen fixing crops. Due to small parcels and farms, it is expected that few holdings will need to implement greening.

**5. Effective governance and knowledge**

SDG 16 aims at providing access to justice and building effective, accountable and inclusive institutions at all levels. SDG 17 aims at better implementation, improving policy coordination and policy coherence, stimulating science, technology and innovation, establishing partnerships and developing measurements of progress.

Effective governance of EU environmental legislation and policies requires having an appropriate institutional framework, policy coherence and coordination, applying legal and non-legal instruments, engaging with non-governmental stakeholders, and having adequate levels of knowledge and skills[[93]](#footnote-93). Successful implementation depends, to a large extent, on central, regional and local government fulfilling key legislative and administrative tasks, notably adoption of sound implementing legislation, co-ordinated action to meet environmental objectives and correct decision-making on matters such as industrial permits. Beyond fulfilment of these tasks, government must intervene to ensure day-to-day compliance by economic operators, utilities and individuals ("compliance assurance"). Civil society also has a role to play, including through legal action. To underpin the roles of all actors, it is crucial to collect and share knowledge and evidence on the state of the environment and on environmental pressures, drivers and impacts.

Equally, effective governance of EU environmental legislation and policies benefits from a dialogue within Member States and between Member States and the Commission on whether the current EU environmental legislation is fit for purpose. Legislation can only be properly implemented when it takes into account experiences at Member State level with putting EU commitments into effect. The Make it Work initiative, a Member State driven project, established in 2014, organizes a discussion on how the clarity, coherence and structure of EU environmental legislation can be improved without lowering existing protection standards.

**Effective governance within central, regional and local government**

Those involved in implementing environment legislation at Union, national, regional and local levels need to be equipped with the knowledge, tools and capacity to improve the delivery of benefits from that legislation, and the governance of the enforcement process.

**Capacity to implement rules**

The assessment here is only preliminary and the Commission has work ongoing to improve its country-specific knowledge about quality and functioning of Member States' administrative systems.

It is crucial that central, regional and local administrations have the necessary capacities and skills and training to carry out their own tasks and co-operate and co-ordinate effectively with each other, within a system of multi-level governance.

The Maltese public sector scores high in terms of efficiency and effectiveness. According to the World Bank 2015 Worldwide Governance Indicators, Malta scores 80% for the government effectiveness indicator, which captures the perceptions of the quality of public services[[94]](#footnote-94).

However, there is also much room for improvement as several structural challenges pose a barrier to innovation. The recent assessment by the European Commission within the European Semester process concluded that the low efficiency of government administration and of the judicial system, an inefficient transport system, and skills mismatches lower Malta’s attractiveness to foreign investors and hamper the ability of businesses to invest. A weak human resources base in science and technologies and the lack of a critical mass in specific research areas hinders the capacity to innovate (European Commission, 2016[[95]](#footnote-95)). Stronger linkages between the academic and the private sector for effective knowledge transfer are needed, as well as further investment in R&D.

In April 2016, a reorganisation has occurred in order to simplify and speed up permitting procedures with the result that the section of Environmental Permitting is now within the Environment and Resources Authority. Finally, specific aspects of the consultation processes for new legislation have to be improved, including more feedback to stakeholders on how their input has been taken into account.

In the Partnership Agreement (2014)[[96]](#footnote-96) for Malta on the EU Structural and Investment Funds 2014-2020, it was recognised that resources for environmental permitting procedures should be further enhanced during the 2014-2020 funding period[[97]](#footnote-97).

Moreover, there is a systemic problem of lack of timely reporting under EU environmental legislation. This might be related to shortage of staff resources.

Arrangements for the effective application of Union environmental legislation related to Environmental Impact Assessment and Strategic Environmental Assessment are in place, as well as arrangements for training and dissemination of information for staff involved. The proper implementation of EU environmental legislation relating to land use (EIA and SEA Directives) is of particular importance, especially in view of the fact that Malta has the largest proportion of built up areas within the whole EU[[98]](#footnote-98).

The transposition of the revised Directive on Environmental Impact Assessment (EIA)[[99]](#footnote-99) will be an opportunity to streamline the regulatory framework on environmental assessments. The Commission encourages the streamlining of the environmental assessments because this approach reduces duplication and avoids unnecessary overlaps in environmental assessments applicable for a particular project. The Commission has issued a guidance document in 2016[[100]](#footnote-100) 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.

Suggested action

* Improve the timely reporting under the EU environmental legislation and ensure sufficient staff capacity for this purpose in particular and more generally for a more effective implementation and enforcement of the environmental policy.

**Coordination and integration**

The Ministry for Sustainable Development, the Environment, and Climate Change (MSDEC) is the public authority in charge of coordinating and streamlining environmental policy developments in Malta.

In 2014, the MSDEC underwent organisational improvements in setting up a Strategic Office dedicated to mainstreaming of sustainable development approaches and environmental matters in the operational work of the ministry. Within this division the policy streams of Sustainable Development, Environment and Climate Change are being developed in conjunction with the Policy Development and Programme Implementation Directorate. Together these structures are targeting to secure a more integrated approach for policy development and implementation

Malta has recently established an Environment and Resources Authority whose main goals are: (i) to mainstream environmental targets and objectives across Government and society; (ii) to take the leading role in advising Government on environmental policy-making at the national level, as well as in the context of international environmental negotiations; (iii) to develop evidence-based policy; backed by a robust data gathering structure; and (iv) to draw up plans, provide a licensing regime and monitor activities having an environmental impact and to integrate environmental considerations within the development control process[[101]](#footnote-101).

Suggested action

* Ensure that the newly established Environment and Resources Authority has strong responsibilities. There should be clear and transparent processes for the authorization of facilities and activities that have impact on the environment.

**Compliance assurance**

EU law generally and specific provisions on inspections, other checks, penalties and environmental liability help lay the basis for the systems Member States need to have in place to secure compliance with EU environmental rules.

Public authorities help ensure accountability of duty-holders by monitoring and promoting compliance and by taking credible follow-up action (i.e. enforcement) when breaches occur or liabilities arise. Compliance monitoring can be done both on the initiative of authorities themselves and in response to citizen complaints. It can involve using various kinds of checks, including inspections for permitted activities, surveillance for possible illegal activities, investigations for crimes and audits for systemic weaknesses. Similarly, there is a range of means to promote compliance, including awareness-raising campaigns and use of guidance documents and online information tools. Follow-up to breaches and liabilities can include administrative action (e.g. withdrawal of a permit), use of criminal law[[102]](#footnote-102) and action under liability law (e.g. required remediation after damage from an accident using liability rules) and contractual law (e.g. measures to require compliance with nature conservation contracts). Taken together, all of these interventions represent "compliance assurance" as shown in Figure 13.

Best practice has moved towards a risk-based approach at strategic and operational levels in which the best mix of compliance monitoring, promotion and enforcement is directed at the most serious problems. Best practice also recognises the need for coordination and cooperation between different authorities to ensure consistency, avoid duplication of work and reduce administrative burden. Active participation in established pan-European networks of inspectors, police, prosecutors and judges, such as *IMPEL[[103]](#footnote-103), EUFJE[[104]](#footnote-104), ENPE[[105]](#footnote-105) and EnviCrimeNet[[106]](#footnote-106)*, is a valuable tool for sharing experience and good practices.

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| **Figure 13: Environmental compliance assurance** |

Currently, there exist a number of sectoral obligations on inspections and the EU directive on environmental liability (ELD)[[107]](#footnote-107) provides a means of ensuring that the "polluter-pays principle" is applied when there are accidents and incidents that harm the environment. There is also publically available information giving insights into existing strengths and weaknesses in each Member State.

For each Member State, the following were therefore reviewed: use of risk-based compliance assurance; coordination and co-operation between authorities and participation in pan-European networks; and key aspects of implementation of the ELD based on the Commission's recently published implementation report and REFIT evaluation[[108]](#footnote-108)

Since 2007[[109]](#footnote-109), Malta has made progress on compliance assurance. There has been an emphasis on compliance promotion, with steps taken to introduce a risk-based approach to inspection work[[110]](#footnote-110) and some guidance for individual inspection activities put in place.[[111]](#footnote-111) However, a recent decrease in staff numbers combined with low availability of technical equipment could hamper effectiveness[[112]](#footnote-112) [[113]](#footnote-113).

Despite limited resources, Malta is active within IMPEL and it hosted an IMPEL peer review in 2014.

Up-to-date information is lacking in relation to the following:

* data-collection arrangements to track the use and effectiveness of different compliance assurance interventions[[114]](#footnote-114);
* the extent to which risk-based methods are used to direct compliance assurance at the strategic level and in relation to specific problem-areas highlighted elsewhere in this Country Report, i.e. unsatisfactory waste management, the threats to protected habitat types and species, in particular wild birds, air quality breaches and the pressures on groundwater resources.

For the period 2007 – 2013, Malta reported one pending and one dismissed case handled under the Environmental Liability Directive. Due to the country's small size, resources for the Directive's implementation are scarce. The availability of insurance to provide financial security (where an operator cannot meet the costs of remediation) is also insufficient. The focus of the Directive on prevention is viewed as particularly valuable by Malta.

Suggested action

* Improve transparency on the organisation and functioning of compliance assurance and on how significant risks are addressed, as outlined above.
* Step up efforts in the implementation of the Environmental Liability Directive (ELD) with proactive initiatives, in particular by setting up a national register of ELD incidents and drafting national guidance, as well as ensuring an effective system of financial security for environmental liabilities (so that operators not only have insurance cover available to them but actually take it up).

**Public participation and access to justice**

The Aarhus Convention, related EU legislation on public participation and environmental impact assessment, and the case-law of the Court of Justice require that citizens and their associations should be able to participate in decision-making on projects and plans and should enjoy effective environmental access to justice.

Citizens can more effectively protect the environment if they can rely on the three "pillars" of the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters ("theAarhus Convention"). Public participation in the administrative decision making process is an important element to ensure that the authority takes its decision on the best possible basis. The Commission intends to examine compliance with mandatory public participation requirements more systematically at a later stage.[[115]](#footnote-115)

Access to justice in environmental matters is a set of guarantees that allows citizens and their associations to challenge acts or omissions of the public administration before a court. It is a tool for decentralised implementation of EU environmental law.

For each Member State, two crucial elements for effective access to justice have been systematically reviewed: the legal standing for the public, including NGOs and the extent to which prohibitive costs represent a barrier.

In general, Malta provides legal standing for the public, notably environmental NGO and individuals in environmental cases[[116]](#footnote-116). Access to justice for nature protection matters, such as challenging hunting derogations, has not yet been tested in practice. The costs for court procedures can also prevent potential litigants to take court action in environmental matters[[117]](#footnote-117).

Suggested action

* Take the necessary measures to ensure that the costs of legal challenges involving EU environmental law are not prohibitively expensive, and in line with the requirements of EU law as well as the Aarhus Convention.

**Access to Information, knowledge and evidence**

The Aarhus Convention and related EU legislation on access to information and the sharing of spatial data require that the public has access to clear information on the environment, including on how Union environmental law is being implemented.

It is of crucial importance to public authorities, the public and business that environmental information is shared in an efficient and effective way. This covers reporting by businesses and public authorities and active dissemination to the public, increasingly through electronic means.

The Aarhus Convention[[118]](#footnote-118), the Access to Environmental Information Directive[[119]](#footnote-119) and the INSPIRE Directive[[120]](#footnote-120) together create a legal foundation for the sharing of environmental information between public authorities and with the public. They also represent the green part of the ongoing EU e-Government Action Plan[[121]](#footnote-121). The first two instruments create obligations to provide information to the public, both on request and actively. The INSPIRE Directive is a pioneering instrument for electronic data-sharing between public authorities who can vary in their data-sharing policies, e.g. on whether access to data is for free. The INSPIRE Directive sets up a geoportal which indicates the level of shared spatial data in each Member State – i.e. data related to specific locations, such as air quality monitoring data. Amongst other benefits it facilitates the public authorities' reporting obligations.

For each Member State, the accessibility of environmental data (based on what the INSPIRE Directive envisages) as well as data-sharing policies ('open data') have been systematically reviewed.

Malta's performance on the implementation of the INSPIRE Directive as enabling framework to actively disseminate environmental information to the public is lagging behind.[[122]](#footnote-122) Malta has indicated in the 3-yearly INSPIRE implementation report[[123]](#footnote-123) that the necessary data-sharing policies allowing access and use of spatial data by national administrations, other Member States' administrations and EU institutions without procedural obstacles are available and implemented. In general spatial data is made available to public administrations and the public at no cost. However there are some exceptions where a fee is charged, such as for the Malta base map. Malta has no common license model; data–sharing is promoted and coordinated through national data-sharing guidelines.

Assessments of monitoring reports[[124]](#footnote-124) issued by Malta and the spatial information that Malta has published on the INSPIRE geoportal[[125]](#footnote-125) indicate that not all spatial information needed for the evaluation and implementation of EU environmental law has been made available or is accessible. The larger part of this missing spatial information consists of the environmental data required to be made available under the existing reporting and monitoring regulations of EU environmental law.

Suggested action

* Critically review the effectiveness of Malta's data policies and amend them, taking good practices into consideration.
* Identify and document all spatial data sets required for the implementation of environmental law, and make the data and documentation at least accessible 'as is' to other public authorities and the public through the digital services foreseen in the INSPIRE Directive.

1. Communication "Delivering the benefits of EU environmental policies through a regular Environmental Implementation Review" ([COM/2016/ 316 final](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2016%3A316%3AFIN)). [↑](#footnote-ref-1)
2. Decision No. 1386/2013/EU of 20 November 2013 on a General Union Environmental Action Programme to 2020 "[Living well, within the limits of our planet](http://ec.europa.eu/environment/action-programme/)". [↑](#footnote-ref-2)
3. United Nations, 2015. [The Sustainable Development Goals](http://www.undp.org/content/undp/en/home/sdgoverview/post-2015-development-agenda.html) [↑](#footnote-ref-3)
4. This EIR report does not cover climate change, chemicals and energy. [↑](#footnote-ref-4)
5. European Commission, 2015. [Proposed Circular Economy Package](http://europa.eu/rapid/press-release_IP-15-6203_en.htm) [↑](#footnote-ref-5)
6. Lauri, S., Caan, T.F., Azzopardi, J.P. and Bezzina, A., 2015. [Energy Efficiency Trends and Policies in Malta](http://www.odyssee-mure.eu/publications/national-reports/energy-efficiency-malta.pdf), ODYSSEE-MURE [↑](#footnote-ref-6)
7. Idem [↑](#footnote-ref-7)
8. Ministry for Finance, 2016. [National Reform Programme Malta 2016](http://ec.europa.eu/europe2020/pdf/csr2016/nrp2016_malta_en.pdf) [↑](#footnote-ref-8)
9. Resource productivity is defined as the ratio between gross domestic product (GDP) and domestic material consumption (DMC). [↑](#footnote-ref-9)
10. Eurostat, [Resource productivity](http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tsdpc100&plugin=1), accessed October 2016 [↑](#footnote-ref-10)
11. [MARSOL](http://www.marsol.eu/33-0-Partners.html) [↑](#footnote-ref-11)
12. RPA, 2015. [Assessing the Potential Cost Savings and Resource Savings of Investments in 4 SME sectors](http://ec.europa.eu/environment/integration/green_semester/pdf/SME%20Investments%20in%20Resource%20Efficiency.pdf), study for European Commission [↑](#footnote-ref-12)
13. [Eco-innovation Observatory](https://ec.europa.eu/environment/ecoap/scoreboard_en): Eco-Innovation scoreboard 2015 [↑](#footnote-ref-13)
14. Waste Management Plans/Waste Prevention Programmes [↑](#footnote-ref-14)
15. Municipal waste consists of waste collected by or on behalf of municipal authorities, or directly by the private sector (business or private non-profit institutions) not on behalf of municipalities. [↑](#footnote-ref-15)
16. Waste generation per capita in Malta is inflated by the tourism sector: some 1.6 million tourists visit Malta every year. [↑](#footnote-ref-16)
17. Eurostat, [Municipal waste and treatment, by type of treatment method,](http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tsdpc240) accessed October 2016 [↑](#footnote-ref-17)
18. Member States may choose a different method than the one used by ESTAT (and referred to in this report) to calculate their recycling rates and track compliance with the 2020 target of 50% recycling of municipal waste. [↑](#footnote-ref-18)
19. Eurostat, [Municipal waste and treatment, by type of treatment method,](http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tsdpc240) accessed October 2016 [↑](#footnote-ref-19)
20. Eurostat, [Recycling rate of municipal waste](http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=t2020_rt120&plugin=1), accessed October 2016 [↑](#footnote-ref-20)
21. Bio Intelligence service, 2011. [Implementing EU Waste legislation for Green Growth](http://ec.europa.eu/environment/waste/studies/pdf/study%2012%20FINAL%20REPORT.pdf), study for European Commission. The breakdown per country on job creation was made by the consultant on Commission demand but was not included in the published document. [↑](#footnote-ref-21)
22. European Commission, 2013. [Support to Implementation **–** Municipal Waste](http://ec.europa.eu/environment/waste/framework/support_implementation.htm). Country fiche [Malta](http://ec.europa.eu/environment/waste/framework/pdf/Waste%20Summary_MT.pdf) [↑](#footnote-ref-22)
23. Sites of Community Importance (SCIs) are designated pursuant to the Habitats Directive whereas Special Areas of Protection (SPAs) are designated pursuant to the Birds Directive; figures of coverage do not add up due to the fact that some SCIs and SPAs overlap. Special Areas of Conservation (SACs) means a SCI designated by the Member States. [↑](#footnote-ref-23)
24. 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. A scientific reserve is given when further research is needed to identify the most appropriate sites to be added for a species or habitat. [The current data](http://ec.europa.eu/environment/nature/info/pubs/docs/nat2000newsl/nat37_en.pdf), which were assessed in 2014-2015, reflect the situation up until December 2013. [↑](#footnote-ref-24)
25. Malta has sent new data suggesting an improved situation, but they could not yet be included in this figure for consistency reasons. [↑](#footnote-ref-25)
26. The percentages in Figure 5 refer to percentages of the total number of assessments (one assessment covering 1 species or 1 habitat in a given biographical region with the Member State); if a habitat type or a species occurs in more than 1 Biogeographic region within a given Member State, there will be as many individual assessments as there are Biogeographic regions with an occurrence of that species or habitat in this Member State. [↑](#footnote-ref-26)
27. According to the Maltese authorities, work is ongoing and the designation process should be finalised in 2016. [↑](#footnote-ref-27)
28. The core of the ‘Article 17’ report is the assessment of conservation status of the habitats and species targeted by the Habitats Directive. [↑](#footnote-ref-28)
29. Conservation status is assessed using a standard methodology as being either ‘favourable’, ‘unfavourable-inadequate’ and ‘unfavourable-bad’, based on four parameters as defined in Article 1 of the Habitats Directive. [↑](#footnote-ref-29)
30. Please note that a direct comparison between 2007 and 2013 data is complicated by the fact that Bulgaria and Romania were not covered by the 2007 reporting cycle, that the ‘unknown’ assessments have strongly diminished particularly for species, and that some reported changes are not genuine as they result from improved data / monitoring methods. [↑](#footnote-ref-30)
31. European Commission internal assessment. It should be noted, however, that Figure 5 does not yet incorporate the designation of the latest three marine Sites of Community Importance. This revision would bring the relevant sufficiency of the Malta marine SCI network up to 75%, according to the Maltese authorities. [↑](#footnote-ref-31)
32. For example the decisions to open spring hunting seasons or trapping of finch species. [↑](#footnote-ref-32)
33. These figures show the percentage of biogeographical assessments in each category of conservation status for habitats and species (one assessment covering 1 species or 1 habitat in a given biographical region with the Member State), respectively. The information is based on Article 17 of the Habitats Directive reporting - [national summary of Malta](https://circabc.europa.eu/sd/a/899d9952-edc1-41e5-9087-400513a09b17/MT_20140528.pdf) [↑](#footnote-ref-33)
34. Article 12 of the Birds Directive reporting - [national summary of Malta](http://biodiversity.europa.eu/countries/eu_country_profiles/malta) [↑](#footnote-ref-34)
35. Ecosystem services are benefits provided by nature such as food, clean water and pollination on which human society depends. [↑](#footnote-ref-35)
36. Mapping and Assessment of Ecosystems and their Services (MAES). [↑](#footnote-ref-36)
37. European Union, Green Infrastructure — Enhancing Europe’s Natural Capital, [COM/2013/0249](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52013DC0249) [↑](#footnote-ref-37)
38. [National Environment Policy](http://msdec.gov.mt/en/decc/documents/environment/national%20environment%20policy.pdf), February 2012. [↑](#footnote-ref-38)
39. European Environment Agency [Draft results of CORINE Land Cover (CLC) inventory 2012](http://land.copernicus.eu/pan-european/corine-land-cover/lcc-2006-2012/view); mean annual land take 2006-12 as a % of 2006 artificial land. [↑](#footnote-ref-39)
40. European Environment Agency, 2016. [Imperviousness and imperviousness change](http://www.eea.europa.eu/data-and-maps/indicators/imperviousness-change/assessment), Figure 1 [↑](#footnote-ref-40)
41. Eurostat, [Soil water erosion rate](http://ec.europa.eu/eurostat/statistics-explained/index.php/Agri-environmental_indicator_-_soil_erosion), Figure 2, accessed November 2016 [↑](#footnote-ref-41)
42. European Environment Agency, Land cover 2012 and changes country analysis [publication forthcoming] [↑](#footnote-ref-42)
43. European Union, [Marine Strategy Framework Directive 2008/56/EC](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008L0056) [↑](#footnote-ref-43)
44. The MSFD defines Good Environmental Status (GES) in Article 3 as: “The environmental status of marine waters where these provide ecologically diverse and dynamic oceans and seas which are clean, healthy and productive”. [↑](#footnote-ref-44)
45. Commission Staff Working Document Accompanying the Commission Report assessing Member States' monitoring programmes under the Marine Strategy Framework Directive (COM(2017)3 and SWD(2017)1 final) [↑](#footnote-ref-45)
46. . Commission Staff Working Document Accompanying the Commission Report assessing Member States' monitoring programmes under the Marine Strategy Framework Directive (COM(2017)3 and SWD(2017)1 final) [↑](#footnote-ref-46)
47. 2012 Data provided by the European Environmental Agency – Not published [↑](#footnote-ref-47)
48. Commission Staff Working Document Accompanying the Commission Report assessing Member States' monitoring programmes under the Marine Strategy Framework Directive (COM(2017)3 and SWD(2017)1 final) [↑](#footnote-ref-48)
49. As of 7.10.2016, Malta had not yet reported its programme of measures to the Commission. [↑](#footnote-ref-49)
50. European Commission, 2016. [Air Quality Standards](http://ec.europa.eu/environment/air/quality/standards.htm) [↑](#footnote-ref-50)
51. See [EIONET Central Data Repository](http://cdr.eionet.europa.eu/) and [Air pollutant emissions data viewer (NEC Directive)](http://www.eea.europa.eu/data-and-maps/data/data-viewers/emissions-nec-directive-viewer) [↑](#footnote-ref-51)
52. NOx is emitted during fuel combustion e.g. from industrial facilities and the road transport sector. NOx is a group of gases comprising nitrogen monoxide (NO) and nitrogen dioxide (NO2). [↑](#footnote-ref-52)
53. The current national emission ceilings apply since 2010 ([Directive 2001/81/EC](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32001L0081)); revised ceilings for 2020 and 2030 have been set by [Directive (EU) 2016/2284](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2016.344.01.0001.01.ENG&toc=OJ:L:2016:344:TOC) on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC. [↑](#footnote-ref-53)
54. Particulate matter (PM) is a mixture of aerosol particles (solid and liquid) covering a wide range of sizes and chemical compositions. PM10 (PM2.5) refers to particles with a diameter of 10 (2.5) micrometres or less. PM is emitted from many human sources, including combustion. [↑](#footnote-ref-54)
55. European Environment Agency, 2016. [Air Quality in Europe – 2016 Report](http://www.eea.europa.eu/publications/air-quality-in-europe-2016) (Table 10.2, please see details in this report as regards the underpinning methodology) [↑](#footnote-ref-55)
56. Based on European Environment Agency, 2016. [Air Quality in Europe – 2016 Report](http://www.eea.europa.eu/publications/air-quality-in-europe-2016). (Figures 4.1, 5.1 and 6.1) [↑](#footnote-ref-56)
57. Low level ozone is produced by photochemical action on pollution and it is also a greenhouse gas. [↑](#footnote-ref-57)
58. See [The EEA/Eionet Air Quality Portal](http://www.eionet.europa.eu/aqportal) and the related Central Data Repository [↑](#footnote-ref-58)
59. This includes the opportunity costs of time and fuel wasted in congested traffic, accidents, air pollution climate change and noise. Source: tbc [↑](#footnote-ref-59)
60. These figures are based on the [Impact Assessment](http://ec.europa.eu/environment/archives/air/pdf/Impact_assessment_en.pdf) for the European Commission Integrated Clean Air Package (2013) [↑](#footnote-ref-60)
61. WHO/JRC, 2011, Burden of disease from environmental noise, Fritschi, L., Brown, A.L., Kim, R., Schwela, D., Kephalopoulos, S. (eds), [World Health Organization, Regional Office for Europe](http://www.euro.who.int/en/media-centre/sections/press-releases/2011/03/new-evidence-from-who-on-health-effects-of-traffic-related-noise-in-europe), Copenhagen, Denmark [↑](#footnote-ref-61)
62. The Noise Directive requires Member States to prepare and publish, every 5 years, noise maps and noise management action plans for agglomerations with more than 100,000 inhabitants, and for major roads, railways and airports. Malta counts as one agglomeration. [↑](#footnote-ref-62)
63. This includes the [Bathing Waters Directive (2006/7/EC);](http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1481623908600&uri=CELEX:32006L0007) the [Urban Waste Water Treatment Directive (91/271/EEC)](http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A31991L0271) concerning discharges of municipal and some industrial waste waters; the [Drinking Water Directive (98/83/EC)](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31998L0083) concerning potable water quality; the [Water Framework Directive (2000/60/EC)](http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1481624135097&uri=CELEX:32000L0060) concerning water resources management; the [Nitrates Directive (91/676/EEC)](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31991L0676) and the [Floods Directive (2007/60/EC)](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32007L0060) [↑](#footnote-ref-63)
64. Good ecological status is defined in the Water Framework Directive referring to the quality of the biological community, the hydrological characteristics and the chemical characteristics. [↑](#footnote-ref-64)
65. Good chemical status is defined in the Water Framework Directive referring to compliance with all the quality standards established for chemical substances at European level. [↑](#footnote-ref-65)
66. For groundwater, a precautionary approach has been taken that comprises a prohibition on direct discharges to groundwater, and a requirement to monitor groundwater bodies. [↑](#footnote-ref-66)
67. Diffuse pollution comes from widespread activities with no discrete source. [↑](#footnote-ref-67)
68. Malta has informed the Commission that water level monitoring networks are installed in the two main mean sea level groundwater bodies, and that monitoring strategies which go over and above the requirements of the WFD are being developed by MT during the course of the 2nd RBMP for the main sea level groundwater bodies. [↑](#footnote-ref-68)
69. [Commission's Synthesis Report on the Quality of Drinking Water in the Union](http://ec.europa.eu/environment/water/water-drink/reporting_en.html) examining Member States' reports for the 2011-2013 period, foreseen under Article 13(5) of Directive 98/83/EC; COM(2016)666 [↑](#footnote-ref-69)
70. European Environment Agency, 2016. [European bathing water quality in 2015](http://www.eea.europa.eu/publications/european-bathing-water-quality-2015), p. 30 [↑](#footnote-ref-70)
71. Malta has informed the Commission that recent monitoring data indicates that the monitoring of the groundwater bodies which are affected by overexploitation are in a stable state, which would suggest a balance between abstraction and recharge. [↑](#footnote-ref-71)
72. European Environment Agency, [State of bathing water](http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water) country reports -Malta, 2016 [↑](#footnote-ref-72)
73. Flash flood type following intense rainfall events are a result of uncontrolled surface water runoff in urbanised dry valley channels. [↑](#footnote-ref-73)
74. RPA, 2014. Study on Economic and Social Benefits of Environmental Protection and Resource Efficiency Related to the European Semester. Study for the European Commission, [Annex 1: Country fiches](http://ec.europa.eu/environment/integration/green_semester/pdf/RPA%20Final%20Report-annexes.pdf) [↑](#footnote-ref-74)
75. The full set of recommendations in relation to the WFD are [here](http://ec.europa.eu/environment/water/water-framework/impl_reports.htm#fourth). [↑](#footnote-ref-75)
76. European Environment Agency, [Urban environment](http://www.eea.europa.eu/themes/urban) [↑](#footnote-ref-76)
77. <http://urbanagendaforthe.eu/> [↑](#footnote-ref-77)
78. The Commission is developing an [Urban Benchmarking and Monitoring ('UBaM') tool](http://ec.europa.eu/environment/urban/tool.htm) to be launched in 2017. Best practices emerge and these will be better disseminated via the app featuring the UBaM tool, and increasingly via e.g. EUROCITIES, ICLEI, CEMR, Committee of the Regions, Covenant of Mayors and others. [↑](#footnote-ref-78)
79. 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. [↑](#footnote-ref-79)
80. [Nagoya protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization to the](https://www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf)

    [Convention on biological diversity](https://www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf) [↑](#footnote-ref-80)
81. Eunomia Research and Consulting, IEEP, Aarhus University, ENT, 2016. [Study on Assessing the Environmental Fiscal Reform Potential for the EU28](http://ec.europa.eu/environment/integration/green_semester/pdf/Eunomia%20EFR%20Final%20Report%20MAIN%20REPORT.pdf). N.B. National governments are responsible for setting tax rates within the EU Single Market rules and this report is not suggesting concrete changes as to the level of environmental taxation. It merely presents the findings of the 2016 study by Eunomia *et al* on the potential benefits various environmental taxes could bring. It is then for the national authorities to assess this study and their concrete impacts in the national context. A first step in this respect, already done by a number of Member States, is to set up expert groups to assess these and make specific proposals. [↑](#footnote-ref-81)
82. The good practice scenario means benchmarking to a successful taxation practice in another Member State. [↑](#footnote-ref-82)
83. Eurostat, [Environmental tax revenues](http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=t2020_rt320&plugin=1http://ec.europa.eu/eurostat/en/web/products-datasets/-/T2020_RT320), accessed October 2016 [↑](#footnote-ref-83)
84. European Commission, 2015. [Public procurement](http://ec.europa.eu/internal_market/scoreboard/performance_per_policy_area/public_procurement/index_en.htm) [↑](#footnote-ref-84)
85. In the Communication “Public procurement for a better environment” [(COM /2008/400)](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52008DC0400http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52008DC0400) 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. [↑](#footnote-ref-85)
86. European Commission, 2015. [Documentation on National GPP Action Plans](http://ec.europa.eu/environment/gpp/action_plan_en.htm) [↑](#footnote-ref-86)
87. [National Reform Programme 2016 of Malta](http://ec.europa.eu/europe2020/pdf/csr2016/nrp2016_malta_en.pdf), p. 51-52. [↑](#footnote-ref-87)
88. ESIF comprises five funds – the European Regional Development Funds (ERDF), the Cohesion Fund (CF), the European Social Fund (ESF), the European Agricultural Fund for Rural Development (EAFRD), and the European Maritime and Fisheries Fund (EMFF). The ERDF, the CF and the ESF together form the Cohesion Policy funds. [↑](#footnote-ref-88)
89. European Investment Bank, 2016 [European Fund for Strategic Investments](http://www.eib.org/efsi/) [↑](#footnote-ref-89)
90. [Operational](https://eufunds.gov.mt/en/Information/Documents/MT%20PA%20-%20October%202014.pdf) Programme , [Fostering a competitive and sustainable](https://eufunds.gov.mt/en/Operational%20Programmes/Programming%20Period%202014%20-%202020/Operational%20Programme%201/Documents/Adopted%20OPI(ff).pdf)

    [economy to meet our challenges](https://eufunds.gov.mt/en/Operational%20Programmes/Programming%20Period%202014%20-%202020/Operational%20Programme%201/Documents/Adopted%20OPI(ff).pdf) p. 326 [↑](#footnote-ref-90)
91. European Commission, [European Structural and Investment Funds Data By Country](https://cohesiondata.ec.europa.eu/countries) [↑](#footnote-ref-91)
92. Commission delegated regulation [(EU) 2015/851)](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015R0851) establishing rules for direct payments to farmers under support schemes within the framework of the common agricultural policy [↑](#footnote-ref-92)
93. The Commission has work ongoing to improve the country-specific knowledge about quality and functioning of the administrative systems of Member States. [↑](#footnote-ref-93)
94. World Bank, [Worldwide Governance Indicators 2015](http://info.worldbank.org/governance/wgi/index.aspx#countryReports) [↑](#footnote-ref-94)
95. European Commission, [Council Recommendation on the 2016 national reform programme of Malta and delivering a Council opinion on the 2016 stability programme of Malta](http://ec.europa.eu/europe2020/pdf/csr2016/csr2016_malta_en.pdf), p. 4. [↑](#footnote-ref-95)
96. [Partnership Agreement of Malta 2014-2020](https://eufunds.gov.mt/en/Information/Documents/MT%20PA%20-%20October%202014.pdf), p. 170. [↑](#footnote-ref-96)
97. [Partnership Agreement of Malta 2014-2020](https://eufunds.gov.mt/en/Information/Documents/MT%20PA%20-%20October%202014.pdf), p. 243. [↑](#footnote-ref-97)
98. Eurostat, [Land cover statistics](http://ec.europa.eu/eurostat/statistics-explained/index.php/Land_cover_statistics#Land_cover_in_the_EU_Member_States), accessed June 2016 [↑](#footnote-ref-98)
99. The transposition of Directive 2014/52/EU is due in May 2017. [↑](#footnote-ref-99)
100. European Commission, 2016. Commission notice — [Commission guidance document on streamlining environmental assessments conducted under Article 2(3) of the Environmental Impact Assessment Directive](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:C:2016:273:TOC) (Directive 2011/92/EU of the European Parliament and of the Council, as amended by Directive 2014/52/EU). [↑](#footnote-ref-100)
101. Government of Malta, [Environment & Resources Authority](http://era.org.mt/en/Pages/who-we-are.aspx) [↑](#footnote-ref-101)
102. European Union, [Environmental Crime Directive 2008/99/EC](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008L0099) [↑](#footnote-ref-102)
103. [European Union Network for the Implementation and Enforcement of Environmental Law](http://www.impel.eu) [↑](#footnote-ref-103)
104. [European Union Forum of judges for the environment](http://www.eufje.org) [↑](#footnote-ref-104)
105. [The European Network of Prosecutors for the Environment](http://www.environmentalprosecutors.eu) [↑](#footnote-ref-105)
106. [EnviCrimeNet](http://envicrimenet.com/) [↑](#footnote-ref-106)
107. European Union, [Environmental Liability Directive 2004/35/CE](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32004L0035) [↑](#footnote-ref-107)
108. [COM(2016)204 final](https://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/1-2016-204-EN-F1-1.PDF) and [COM(2016)121 final](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52016SC0121) of 14.4.2016. This highlighted the need for better evidence on how the directive is used in practice; for tools to support its implementation, such as guidance, training and ELD registers; and for financial security to be available in case events or incidents generate remediation costs [↑](#footnote-ref-108)
109. In the Commission Report on the implementation of Recommendation 2001/331/EC providing for minimum criteria for environmental inspections Malta was identified as less successful in applying the criteria set (See Commission Staff Working Document SEC(2007)1493, p. 6, 15 and 20). [↑](#footnote-ref-109)
110. A system for risk-assessment to determine inspection frequency was introduced first in 2010 and was further developed in 2013 (see [IMPEL IRI Malta](http://www.impel.eu/wp-content/uploads/2016/06/FR-2014-07-IRI-Malta.pdf) 2014, p. 25). [↑](#footnote-ref-110)
111. IMPEL [IRI Malta 2014](http://www.impel.eu/wp-content/uploads/2016/06/FR-2014-07-IRI-Malta.pdf), p. 34. [↑](#footnote-ref-111)
112. According to the [IMPEL IRI Malta](http://www.impel.eu/wp-content/uploads/2016/06/FR-2014-07-IRI-Malta.pdf) 2014 (p. 43), there was a loss of 50% since 2012; low availability of IT devices and vehicles for inspectors was also identified (p. 44). [↑](#footnote-ref-112)
113. The newly set up Environment Authority is in the process of capacity building in this area in order to strengthening the compliance monitoring set-up in the near future. [↑](#footnote-ref-113)
114. Only a limited performance monitoring is being undertaken using only few basic indicators, [IMPEL IRI Malta](http://www.impel.eu/wp-content/uploads/2016/06/FR-2014-07-IRI-Malta.pdf) 2014. [↑](#footnote-ref-114)
115. Malta’s latest report on the Aarhus Convention is here: <http://apps.unece.org/ehlm/pp/NIR/listnr.asp?YearID=2014&wf_Countries=MT&wf_Q=QA&Quer_ID=&LngIDg=EN&YearIDg=2017> [↑](#footnote-ref-115)
116. Malta meanwhile has an established structure in place, including the environment and planning appeals tribunal: <http://era.org.mt/en/Pages/Access-to-Justice.aspx> [↑](#footnote-ref-116)
117. European Commission, [2012/2013 access to justice in environmental matters in the EU Member States.](http://ec.europa.eu/environment/aarhus/access_studies.htm) [↑](#footnote-ref-117)
118. European Commission, [The Aarhus Convention](http://ec.europa.eu/environment/aarhus/) [↑](#footnote-ref-118)
119. European Union, [Directive 2003/4/EC on public access to environmental information](http://eur-lex.europa.eu/legal-content/GA/ALL/?uri=CELEX:32003L0004) [↑](#footnote-ref-119)
120. European Commission, 2016. [INSPIRE Directive](http://inspire.ec.europa.eu) [↑](#footnote-ref-120)
121. European Union, EU eGovernment Action Plan 2016-2020 - Accelerating the digital transformation of government [COM(2016) 179](https://ec.europa.eu/digital-single-market/en/news/communication-eu-egovernment-action-plan-2016-2020-accelerating-digital-transformation) final [↑](#footnote-ref-121)
122. Malta has informed that the Environment Resource Authority website meanwhile provides information on the following aspects: (1) a prominent link to public consultations - see PUBLIC CONSULTATION tab on <http://era.org.mt/en/Themes/Pages/Welcome.aspx> ; (2) a widget for Ground level Ozone levels on the main page; (3) a link to air quality monitoring levels of airborne pollutants; (4) a dedicated page for each environmental theme with tabs on information, news, publications, data and maps, environmental permits (applications). [↑](#footnote-ref-122)
123. [European](http://inspire.ec.europa.eu/index.cfm/pageid/182) Commission, 2016. [Inspire – Monitoring and Reporting](http://inspire.ec.europa.eu/index.cfm/pageid/182) [↑](#footnote-ref-123)
124. [Inspire indicator trends](http://inspire.ec.europa.eu/portfolio/inspire-dashboard)  [↑](#footnote-ref-124)
125. [Inspire Resources Summary Report](http://inspire-geoportal.ec.europa.eu/resources/INSPIREResourcesReports/resourcesReport_2016-05-09/)  [↑](#footnote-ref-125)