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COMMISSION STAFF WORKING DOCUMENT

The EU Environmental Implementation Review
Country Report - UNITED KINGDOM

Accompanying the document

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

The EU Environmental Implementation Review: Common Challenges and how to combine efforts to deliver better results

{COM(2017) 63 final}
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This report has been written by the staff of the Directorate-General for Environment, European Commission. Any comments are welcome to the following e-mail address: ENV-EIR@ec.europa.eu

More information on the European Union is available on the internet (http://europa.eu).

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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]. 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] and refer to the 2030 Agenda for Sustainable development and related Sustainable Development Goals (SDGs)[3] to the extent to which they reflect the existing obligations and policy objectives of EU environmental law[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

Environmental policy is primarily devolved within the UK, with the devolved administrations (Scotland, Northern Ireland and Wales) responsible for environmental and related economic development measures. The UK government is responsible for implementing environmental policy in England.

Main Challenges

The three main challenges with regard to implementation of EU environmental policy and law in the United Kingdom are:

- Improving air quality in urban areas, especially nitrogen dioxide (NO2).
- Tackling water quality, notably agricultural pollution nitrates) but also remaining urban waste water issues such as storm water overflows.
- Completing the Natura 2000 designation process for marine sites, increase the focus on protecting species and habitats outside the limited UK Natura 2000 terrestrial network and to develop an overall protection strategy for dispersed species such as bats and great crested newts.

Main Opportunities

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

- Recycling. The WRAP programme (in England, Wales and Northern Ireland) which aims at showing how businesses, organisations and consumers can be part of a resource revolution can be a basis for making further progress on waste and resource efficiency.

Points of Excellence

Where the United Kingdom is a leader on environmental implementation, innovative approaches could be shared more widely with other countries. Good examples are:

- A specialised bank, the Green Investment Bank, is in charge of attracting private investments in the green economy.
- National infrastructure pipeline, which gives an overall picture of planned investment in infrastructure and which is updated regularly basis provides a sound basis for governmental decisions.
- The UK is one of the frontrunners on Green Public Procurement.
- The UK possesses an advanced approach on natural capital accounting.

[1] Communication "Delivering the benefits of EU environmental policies through a regular Environmental Implementation Review" (COM/2016/ 316 final).
[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".
[3] United Nations, 2015. The Sustainable Development Goals
[4] This EIR report does not cover climate change, chemicals and energy.

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 8 invites 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.

Several systemic and transformative eco-innovations and supporting policies are emerging in the United Kingdom, aiming to make a complete shift in current patterns of production and consumption.

The UK government publication 'Enabling the Transition to a Green Economy: government and business working together' is a response to requests from the private sector for greater clarity on the policies being put in place to achieve this and how they come together[5].

In 2015, the UK Government published a report entitled "Resource management: a catalyst for growth and productivity" that highlights economic direct and indirect benefits as well as environmental benefits brought by the waste and resource management sector to the UK economy. The report found that in 2013, the sector employed 672,000 people and generated GBP 6.8 billion gross value added, or GBP 41 billion when adding re-use, repair and leasing of household goods activities. Transitioning towards a more circular economy has the potential to create even more economic opportunities. In terms of environmental impacts, this means reduced carbon and water footprint, less soil and water pollution and better human health.

The UK Government has also set up the Green Investment Bank (GIB) to deliver support to offshore wind, energy efficiency or onshore renewables initiatives. The GIB is in charge of attracting private investment in the green economy and demonstrating that such investment makes sound commercial sense. To secure funding, projects must meet GIB's investment and sustainability criteria.

In addition, approaches on regional level exist. The London Waste and Recycling Board published the 'Towards a Circular Economy' report[6], an introduction to London's route map to a circular economy, on 9 December 2015.

Regarding the circular economy, the Scottish Government has published its first circular economy strategy "Making Things Last" in February 2016, as well as a GBP 70 million investment for a new strategy for manufacturing "A Manufacturing Future for Scotland"[7].

Another good practice example is the UK's National Industrial Symbiosis Programme[8] (NISP) which was rolled out in 2005 as a free businesses opportunity and networking programme. It is a business opportunity programme that develops mutually profitable links between traditionally separate companies from all industrial sectors and of all sizes so that previously unused or discarded resources such as energy, water and/or materials from one company can be recovered, reprocessed and re-used by other companies in the industrial member network.

The UK government, the devolved administrations (Wales and Northern Ireland) and other backers are funding WRAP[9] to deliver practical solutions to improve resource efficiency and reduce waste. WRAP's aims are to re-invent the design and production of products; re-define the possibilities of re-use and recycling and rethink how products are used and consumed. Activity is concentrated on three priority sectors; food and drink,

[5] Eco-innovation Observatory, 2013. Eco-innovation in United Kingdom

[6] London Waste & Recycling Board, 2015. Towards a Circular Economy

[7] Scottish Government, 2016. Manufacturing Plan to boost industry.

[8] National Industrial Symbiosis Programme, 2016.

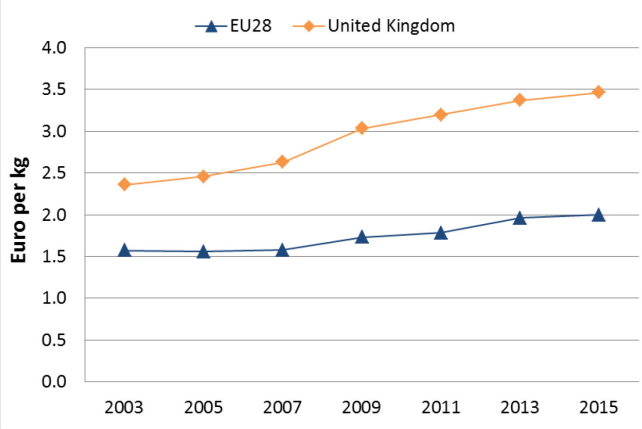
[9] WRAP programme, 2016. Resource Revolution : Creating the Future

clothing and textiles; and electricals and electronics, with collaborative action being delivered through voluntary agreements. Zero Waste Scotland is the Scottish Government's delivery body and supports businesses, the public sector and consumers in Scotland on waste and resource efficiency.

The UK itself estimates that the core waste sector alone supported 103,000 jobs in 2013[10].

The UK is among the best performing member states as regards resource efficiency (how efficiently the economy uses material resources to produce wealth), having a stable increase since 2004 with 3.44 EUR/kg (EU average is 2.0) in 2015 as shown in Figure 1. Resource productivity[11] is higher in countries with high income and in economies with larger service sectors.

Figure 1: Resource productivity 2003-15[12]



SMEs and Resource efficiency

In general, the UK proposes a wide range of measures to support Small and Medium-sized enterprises (SMEs) in improving its resource efficiency, ranging from voluntary measures to regulatory measures. An analysis[13] shows that UK offers nine out of ten support activities assessed in the study and belongs to the ten best performing member states.

Two measures could be mentioned as successful examples: In the UK, the most prominent example for incentivising audits is ENWORKS[14], work on resource efficiency assessments in businesses. ENWORKS resource efficiency assessments aim to (i) improve the competitiveness and productivity of companies in North West England by reducing their exposure to environmental risk and (ii) reduce CO2 emissions, water and material usage and divert waste from landfill. These goals are to be achieved through directly working with companies, including the supply of resource efficiency assessments, and targeted information. Launched in 2001, the measure targets all interested companies, although support was prioritised to areas thought to have the greatest effect. From 2007 to 2010, 3,655 businesses were assisted, leading to annual cost savings of GBP 77 million, material savings of almost 200,000 tonnes and an increase in sales by GBP 35 million.

The Resource Efficient Scotland Programme funded by the Scottish Government, offers free advice and support to businesses to implement energy and resource efficiency measures that translate to cost savings, increasing their economic competitiveness. From 2013 to 2015 the programme has provided advice to over 10,000 businesses and generated estimated lifetime energy savings of 2,300 GWh, carbon savings of 900,000 tCO_2 and cost savings of £180 million.

In the Flash 426 Eurobarometer "SMEs, resource efficiency and green markets" it is shown that 47% of UK's SMEs have invested up to 5% of their annual turnover in their resource efficiency actions (EU28 average 50%), 26% of them are currently offering green products and services (EU28 average 26%), 72% took measures to save energy (EU28 average 59%), 91% to minimise waste (EU28 average 60%), 57% to save water (EU28 average 44%), and 64% to save materials (EU28 average 54%). From a circular economy perspective, 74% took measures to recycle by reusing material or waste within the company (EU28 average 40%), 26% to design products that are easier to maintain, repair or reuse (EU28 average 22%) and 35% were able to sell their scrap material to another company (EU28 average 25%).

Using the full potential of resource efficiency measures, the cost savings are huge: for only four SME sectors (food & beverages; energy, power & utilities; environmental technologies; construction) the savings that would strengthen their competitiveness could already amount to around EUR 6.7 billion.

About 60,000 new jobs could be created and about 173,000 jobs could be secured if all SMEs in the four sectors would fully use their potential for resource efficiency [15]. The Flash 426 Eurobarometer "SMEs, resource efficiency and green markets" shows that 27% of the SMEs in the UK have one or more full time employee working in a green job at least some of the time (EU28 average 35%). The UK has an average number of 2.0 full time green employees per SME (EU28 average

[10] UK Government, 2015. DEFRA Resource Management: a catalyst for growth and productivity

[11] Resource productivity is defined as the ratio between gross domestic product (GDP) and domestic material consumption (DMC)

[12] Eurostat, Resource productivity, accessed October 2016

[13] Ecologic, IEEP, Bio by deloitte, 2015. A framework for Member States to support business in improving its resource efficiency, Study for the European Commission, p. 59

[14] ENWORKS: http://www.enworks.com/

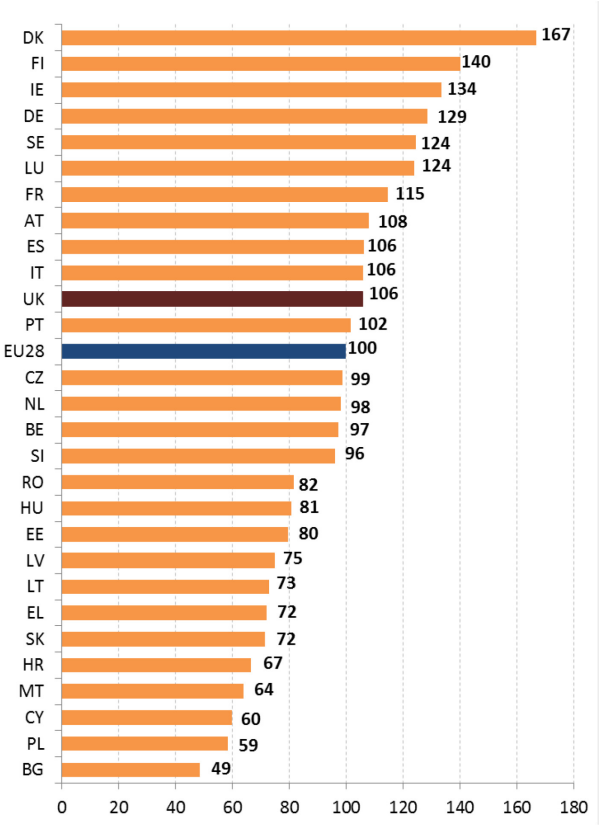
[15] RPA, 2015. Assessing the Potential Cost Savings and Resource Savings of Investments in 4 SME sectors, study for European Commission

1.1%)[16].

Eco-Innovation

In 2015, the UK performed slightly above the EU average in terms of eco-innovation performance according to the EIO Scoreboard, with an overall score of 106 compared to an EU average of 100. However, this represents a fall in the ranking compared to 2013 where the UK achieved a score of 122. The UK went from the 5th to the 11th position and is approximately back to its 2012 level, when it achieved an average score of 100[17].

Figure 2: Eco-Innovation Index 2015 (EU=100)[18]



This dynamism is underlined by the existence of multiple organisations fostering systemic eco-innovation and a more circular economy, through the delivery of financial support, advice and networking opportunities to innovative SMEs and public bodies at the regional and at the national level. Such organisations include Waste and Resources Action Programme (WRAP), Innovate UK, the Knowledge Transfer Network (KTN) and the Catapult Centres.

In 2014 and 2015, particularly dynamic areas in terms of eco-innovation and the circular economy included: 1) Remanufacturing and new business models, 2) Waste management and recycling, 3) Sustainable use of natural resources and critical materials, 4) Low carbon transport, focussing in particular on ultra-low emission vehicles and 5) Clean and carbon abatement technologies.

National efforts to further embrace eco-innovation are also reinforced by an ambitious international and European context promoting collaboration, transparency and long-term, wise investment. Mission Innovation is looking to accelerate global clean energy innovation to make it more widely affordable for climate challenge, affordable and reliable energy, economic growth and energy security. Considering that clean energy technologies require very large amounts of money to bring down costs, to make them affordable and scalable, private sector investment, such as from the Breakthrough Energy Coalition which was launched alongside Mission Innovation, will be key to helping them develop.

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[19] 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.

[16] The Flash 426 Eurobarometer "SMEs, resource efficiency and green markets" defines "green job" as a job that directly deals with information, technologies, or materials that preserves or restores environmental quality. This requires specialised skills, knowledge, training, or experience (e.g. verifying compliance with environmental legislation, monitoring resource efficiency within the company, promoting and selling green products and services).

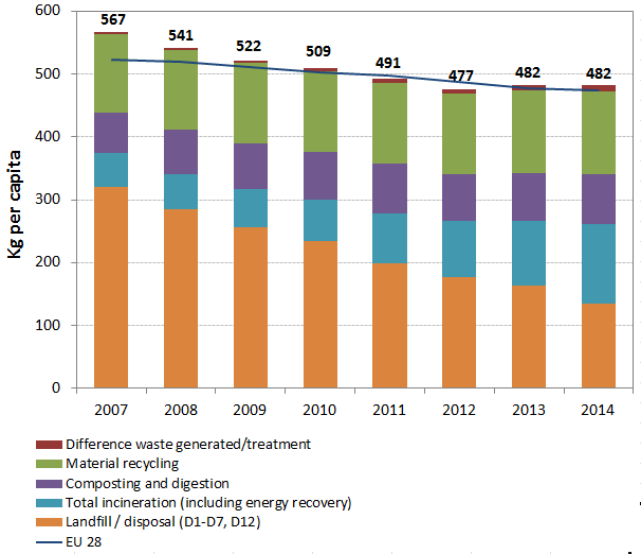
[17] Eco-Innovation Observatory, 2015: Eco-Innovation in UK

[18] Eco-innovation Observatory: Eco-Innovation scoreboard 2015

[19] Waste Management Plans/Waste Prevention Programmes

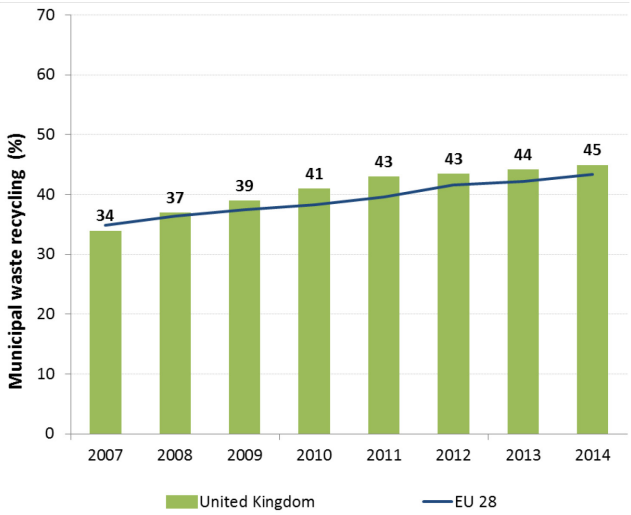
Over the last years, statistics show a continuous decline in municipal waste[20] generation in the UK (Figure 3). In 2014, the amount of waste generated remains the same as 2013 and it is slightly above the EU average (482 kg/y/inhabitant compared to 475kg/y/inhabitant). Figure 3 depicts the municipal waste by treatment in the UK in terms of kg per capita, which shows an increase in incineration and a decrease in landfilling.

Figure 3: Municipal waste by treatment in the United Kingdom 2007-14[21]



Recycling accounts for 45% (incl. composting which accounts for 17%) showing that the UK is on track to meet the 50% recycling target by 2020, as depicted in Figure 4[22].

Figure 4: Recycling rate of municipal waste 2007-14[23]



The UK has also met the packaging waste recycling target (61%). The landfill rate is the same as the EU average (28%). UK complied with both the 2006 and the 2009 landfill diversion targets[24].

However, additional initiatives would be needed in order to limit landfilling to 10% of residual waste by 2030 (a target proposed by the Commission in 2015). Any future investments in incineration (energy recovery) or in mechanical biological treatment (MBT) plants based on mixed waste should be planned so that they do not hinder UK from meeting the 50% recycling target in 2020, and possible future recycling targets as proposed by the Commission.

A landfill tax is in place in UK and this has begun to produce clear impacts on reducing landfilling. Limited extended producer responsibility (EPR) (few waste streams covered) or equivalent system are in place and are unable to cover the full costs of separate collection and recycling of the main waste streams.

Full implementation of the existing legislation could create more than 63,900 jobs in the UK and increase the annual turnover of the waste sector by over EUR 6,700 million. Moving towards the targets of the Roadmap on resource efficiency, which outlines how Europe's economy can be transformed into a sustainable one by 2050, could create over 84,200 additional jobs and increase the annual turnover of the waste sector by over EUR 8,840 million[25].

Suggested action

- Phase out landfilling of recyclable and recoverable waste. Use revenues from economic instruments to

[20] 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 (2014)

[21] Eurostat, Municipal waste and treatment, by type of treatment method, accessed October 2016

[22] 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.

[23] Eurostat, Recycling rate of municipal waste, accessed October 2016

[24] UK secured four year derogation from the landfill directive targets, meaning that the target years are 2010, 2013 and 2016.

[25] Bio Intelligence service, 2011. Implementing EU Waste legislation for Green Growth, 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.

support the separate collection and alternative infrastructure.
- Introduce new economic instruments (e.g. PAYT) to implement further the waste hierarchy, i.e. promote prevention, make reuse and recycling more economically attractive, and shift reusable and recyclable waste away from incineration.
- Improve the performance of the extended producer responsibility (EPR schemes) covering the main waste streams to ensure appropriate and sustainable funding of separate collection, sorting/recycling.

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[26] both in land and at sea, should be the key items to measure the performance of Member States.

The UK has designated 272 SPAs under the Birds Directive and 654 sites under the Habitats Directive. By early 2016, 8.53% of the national land area of UK was covered by Natura 2000 (EU average 18.1 %), with Birds Directive SPAs covering 6.54% (EU average 12.3 %) and Habitats Directive SCIs covering 5.35% (EU average 13.8 %). The UK has the second lowest percentage of land designated under Natura 2000 in the EU (Denmark is the lowest at 8.34%).

The Commission has consistently emphasised the need for the UK to do more for species and habitats outside this limited terrestrial network.

Furthermore, designations are not equally spread all over the UK, there are significant differences as regards the percentage of designated land between the various parts of the UK (see table below). The pattern of terrestrial designation is variable across the constituent parts of the UK:

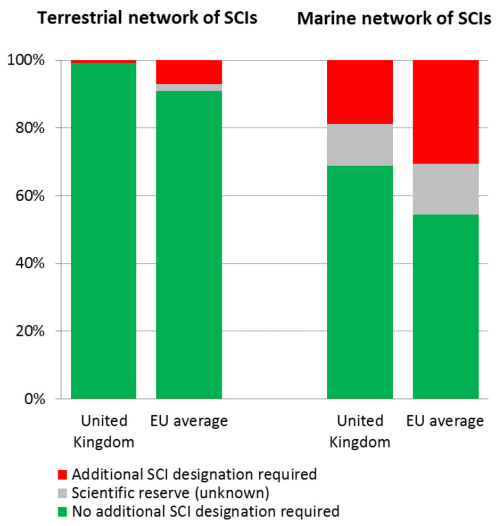
Rounded figures	Natura 2000 (terrestrial)	SCI/SAC (terrestrial)	SPA (terrestrial)
England	5%	4%	3,7%
Wales	7%	6%	4%
Scotland	15%	7.7%	12%
Northern Ireland	8%	2.6%	6%

UK has vast marine areas and the marine designation process, even if slow, is moving in the right direction.

Figure 5: Sufficiency assessment of SCI networks in the United Kingdom based on the situation until December 2013 (%)[27]

[26] 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.

[27] European Commission internal assessment.



The marine network is still not complete[28] (see Figure 5[29].): for example, sites for harbour porpoise are in spite of efforts undertaken by the UK still incomplete and this is why the Commission has recently brought the harbour porpoise case to the European Court of Justice. There are other examples and further work is needed for several habitats, species and birds in the marine environment, but these are actively being addressed.

The UK has designated all terrestrial sites as Special Areas of Conservation (SACs). Many SACs in Scotland and England have only high level conservation objectives. There is a programme of work in place in England to develop detailed objectives where necessary to inform the conservation measures. As regards conservation measures, these seem to be largely in place as regards maintenance of sites, but less advanced as regards needed restoration measures, even though there are a range of successful LIFE-projects dealing with restoration of habitats and species. In general, more transparency is needed (where, what, what for, etc.) as better access to this type of information across the UK would benefit implementation and public awareness[30].

Continuous degradation of biodiversity is an ongoing trend in UK as in large parts of the EU. Data from the 'State of Nature in the EU' report, that is based on Member State reporting under the nature directives show that not only the conservation status[31] of a substantial part of protected features is unfavourable, in particular for habitats but also that there are many negative trends ongoing among the unfavourable features. Agriculture, pollution and hydrological modifications are amongst the highest ranking threats to biodiversity.

The UK has all in all 101 species and 83 habitats of community interest. According to the latest report on the conservation status of habitats and species covered by the Habitats Directive[32], 7% of the habitats' biogeographic assessments were favourable in 2013 (EU27: 16%). Furthermore, 18% are considered to be unfavourable–inadequate (EU27: 47%) and 71% are unfavourable – bad (EU27: 30%). As for the species, 43% of the assessments were favourable in 2013 (EU27: 23%) 24% at unfavourable-inadequate (EU27: 42%) and 17% unfavourable-bad status (EU27: 18%). This is depicted in Figure 6[33]. This situation points to a severe need for restoration work for habitats in the UK.

Figure 6: Conservation status of habitats and species in the United Kingdom in 2007/2013 (%)[34]

[28] 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. The current data, which were assessed in 2014-2015, reflect the situation up until December 2013.

[29] 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.

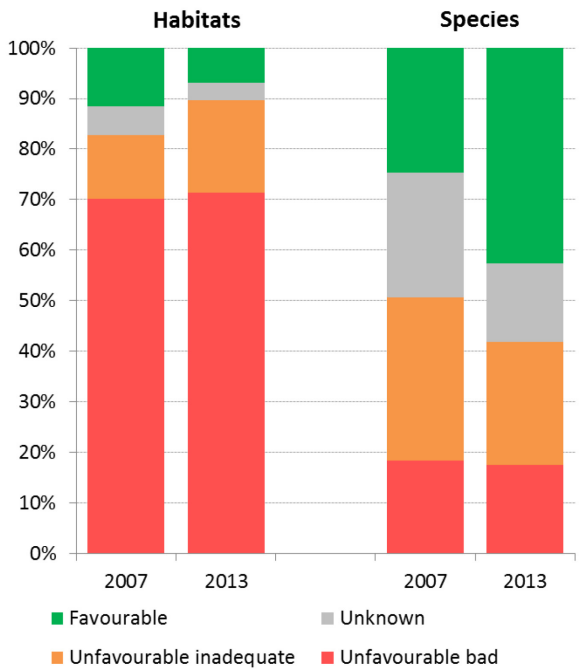
[30] An interesting initiative in this direction has been taken by the IPENS project which shows the objectives actions that are needed are linked and that these are publicly available.

[31] 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.

[32] The core of the 'Article 17' report is the assessment of conservation status of the habitats and species targeted by the Habitats Directive.

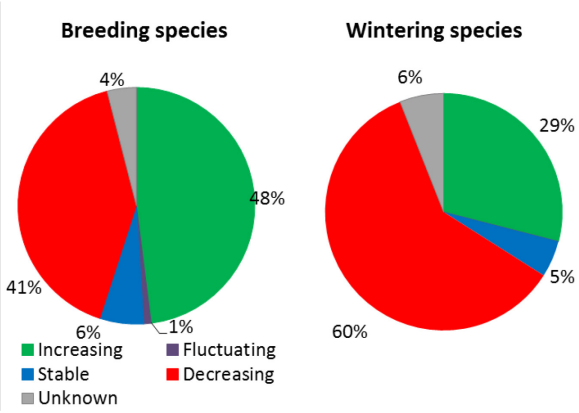
[33] Please note that a direct comparison between 2007 and 2013 data is complicated by the fact that Bulgaria and Romania were not covered by the 2007 reporting cycle, that the 'unknown' assessments have strongly diminished particularly for species, and that some reported changes are not genuine as they result from improved data / monitoring methods.

[34] 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 the United Kingdom



During the period 1970-2012, populations of breeding farmland and woodland birds in the UK declined by 50% and 17% respectively. In 2012 the population for breeding water and wetland birds was 16% lower than in 1975.

Figure 7: Short-term population trend of breeding and wintering bird species in the United Kingdom in 2012 (%)[35]



Issues concerning dispersed species such as bats and great crested newts have been regularly discussed over the last decade and, while some issues have been dealt with, an overall protection strategy dealing with the main impacts on these species is still lacking. In addition, structured monitoring data and sufficient data to satisfy UK-criteria for the designation of sites are party missing.

The key pressure on nature appears to come from agriculture (see reports bases on Art. 17 of the Birds Directive and Art. 12 of the Natura Directive), possibly due to too much reliance being placed on voluntary compliance.

The UK is very successful client of the LIFE-nature fund that supports conservation and restoration projects.

The rich and unique fauna and flora in the UK's Overseas Territories is not covered by Natura 2000. Targeted protection measures and adequate financial resources should be devoted to conserving the exceptional wealth of biodiversity in the overseas territories. In its conclusion of 16 December 2015 Environment Council noted the results of the preparatory action on Biodiversity and Ecosystem Services in Territories of European Overseas (BEST), the funding available under the Commission's Best 2.0 Programme, and urged the Commission and the Member States to move forward on partnerships dedicated to mobilising resources to protect the unique ecosystems and the services they provide in the EU Outermost Regions (OR) and Overseas Countries and Territories (OCT).

Suggested action

- Complete the Natura 2000 designation process in particular in the UK's extensive marine waters for birds, species and habitats. 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.
- Improve knowledge and data availability to be in a better position to implement appropriate conservation measures but also allow for good quality appropriate assessments in the case of plans and projects which could have an impact on protected features.
- Engage in a sustainable partnership for biodiversity protection in the ORs and the OCTs, building on the BEST Preparatory Action and the BEST 2.0 programme.

Estimating natural capital

The EU Biodiversity Strategy to 2020 calls on the Member States to map and asses the state of ecosystems and

[35] Article 12 of the Birds Directive reporting - national summary of the United Kingdom

their services 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.

The UK National Ecosystem Assessment (NEA) was completed in 2012. A follow-on project to UK NEA to address implementation needs was launched in 2014 to provide new information on tools required to help decision-makers across all sectors understand the wider value of ecosystem services[36]. The Ecosystems Knowledge Network in the UK has been promoting the use of ecosystem services and ecosystem approach. This Network is providing advice to a wide range of users including businesses, local government agencies and land valuation professionals. Activities are also ongoing in Scotland and Wales. The UK is quite advanced on natural capital accounting. A national Natural Capital Accounting 2020 Roadmap was developed and an interim review has already been carried out. The Office of National Statistics (ONS) has published natural capital accounts, including on land cover, woodlands and fresh water. Monetary estimates have also been carried out and some partial estimates have been published[37]. In 2011 Scotland established a natural capital asset index to measure changes in the stock of natural capital, which became one of the indicators used in the Government's National Performance Framework.

Green Infrastructure

The EU strategy on green infrastructure[38] 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.

The contribution that nature and landscapes can make to health and quality of life is increasingly recognised in the United Kingdom, and the provision of good quality green space and associated green networks is an important component of policies in all four countries of the UK. The Green Belt protection of green space around major cities is a long standing and politically important framework for development. Work to restore habitats and improve ecosystem services at a landscape scale is proceeding throughout the UK. For example, 48 Local Nature Partnerships (LNPs) were established around England to provide a local approach to managing the natural environment in a strategic and integrated way.

Following a national competition, in 2012 GBP 7.5 million funding was awarded to 12 new Nature Improvement Areas (NIAs) in England, generating significant additional investment from other sources.

The National Planning Policy Framework provides advice and guidelines for planning in England and recommends the development of green infrastructure and ecological corridors.

In Scotland, Green Networks and Green Infrastructure projects aim to improve the environment by creating integrated habitat networks, and mapping of ecosystem health will inform targeted action. National Scottish guidance on green infrastructure promotes the key role of green infrastructure in creating distinctive and sustainable places.

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

[36] Ecosystem services are benefits provided by nature such as food, clean water and pollination on which human society depends.
[37] ONS website, 2016.UK Natural Capital
[38] European Union, Green Infrastructure — Enhancing Europe's Natural Capital, COM/2013/0249

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.

Artificial land cover is used for settlements, production systems and infrastructure. It may itself be split between built-up areas (buildings) and non-built-up areas (such as linear transport networks and associated areas).

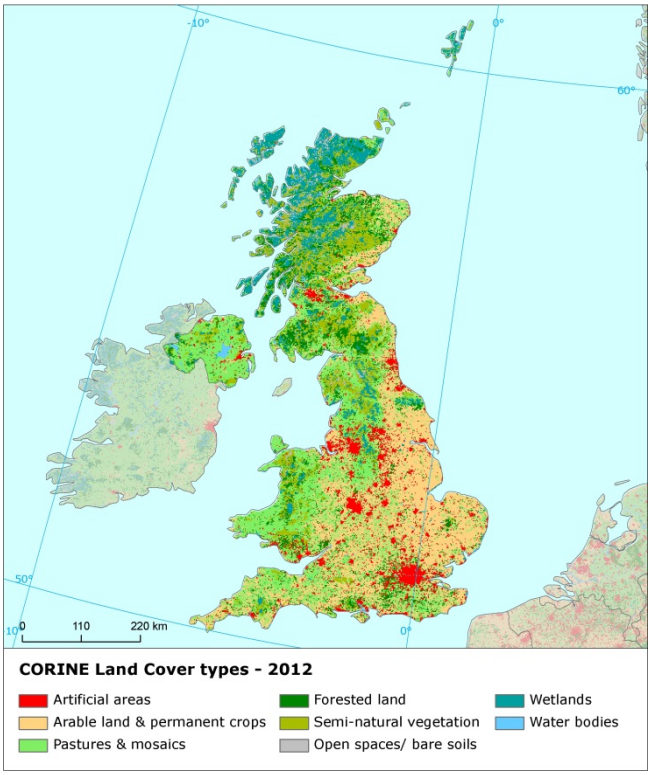
The annual land take rate (growth of artificial areas) as provided by CORINE Land Cover was 0.19% in the UK over the period 2006-12, below the EU average (0.41%). It represented 3812 hectares per year and was mainly driven by housing, services and recreation as well as mines, quarries and dump sites[39]. The percentage of built up land in 2009 was 3.41%, close to the EU average (3.23%)[40].

The soil erosion rate in 2010 was 2.38 tonnes per ha per year, close to EU28 average (2.46 tonnes)[41].

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 the United Kingdom and other EU Member States is being performed by the EU Expert Group on Soil Protection.

Figure 8 shows the different land cover types in the United Kingdom in 2012.

Figure 8: Land Cover types in the United Kingdom 2012[42]



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] aims to achieve Good Environmental Status (GES)[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 sub-region.

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 was to establish a Programme of Measures,

[39] European Environment Agency Draft results of CORINE Land Cover (CLC) inventory 2012; mean annual land take 2006-12 as a % of 2006 artificial land.
[40] European Environment Agency, 2016. Imperviousness and imperviousness change
[41] Eurostat, Soil water erosion rate, Figure 2, accessed November 2016
[42] European Environment Agency. Land cover 2012 and changes country analysis [publication forthcoming]

[43] European Union, Marine Strategy Framework Directive 2008/56/EC
[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"

which the UK reported to the Commission in March 2016 [45]. The Commission assesses whether these elements constitute an appropriate framework to meet the requirements of the MSFD.

UK marine waters are part of the North-East Atlantic Ocean marine region and cover two sub-regions, the Greater North Sea and the Celtic Seas. The UK also has marine waters in the Mediterranean Sea, off the coast of Gibraltar. The United Kingdom is party to the Convention for the protection of the marine environment of the North-East Atlantic (OSPAR Convention). The North Sea is one of the busiest maritime areas in the world, with exploitation of oil and gas reserves also occurring in parallel to the important maritime traffic. In addition, overfishing and bottom-trawling constitute potential threats to the biodiversity in that region. Potential risks to the biodiversity in the Celtic Seas include, among others, overfishing and bottom trawling, fish farming (estuaries) and potential pollution from fishing[46].

When determining GES, the United Kingdom has addressed all the MSFD descriptors and used existing EU requirements as well as OSPAR standards. However, the Commission considered, in 2014, that their determination of GES was generally high-level, only qualitative and therefore not measurable. It was therefore too early to say whether UK waters were in good status as there were weaknesses in identifying what GES is in the first place.

The United Kingdom established a monitoring programme of its marine waters in 2014. However it seems that its monitoring programmes for biodiversity, non-indigenous species, hydrographical changes and marine litter need further refinement to constitute an appropriate framework[47]. In addition, its monitoring programme should have been operational as of 2014. However, the UK reports that its monitoring programme, for a few descriptors, will not be fully operational before 2018 (for marine litter and water column monitoring) or sometimes even 2020 (for seabed habitats, fish and underwater noise monitoring).

In its reports on the implementation of the MSFD[48], the Commission provided guidance to assist the United Kingdom in its implementation of the MSFD.

Marine protected areas in the UK cover 62894.4 square kilometers of its marine waters, with 30894.4 square kilometers in its North Sea waters, 31945.2 square kilometers in its Celtic Seas waters, 54.8 square kilometers in its Western Mediterranean Sea waters[49]. The UK indicated that, in 2016, marine protected areas covered around 154,000 square kilometers.

Suggested action

- Continue work to improve its definition of GES definitions (in particular for the biodiversity descriptors), including through regional cooperation.
- Ensure that all of its monitoring programme is implemented without delay and is appropriate to monitor progress towards its GES.
- Continue to integrate existing monitoring programmes required under other EU legislation and to implement, where they exist, joint monitoring programmes developed at (sub)regional, for instance by the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR). Enhance comparability and consistency of monitoring methods within the country's marine region.
- 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.

[45] Except for marine waters surrounding Gibraltar in the Western Mediterranean sea region

[46] European Environmental Agency, 2016. The North-east Atlantic Ocean

[47] 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)

[48] Report from the Commission "The first phase of implementation of the Marine Strategy Framework Directive (2008/56/EC) - The European Commission's assessment and guidance" COM(2014)097

[49] 2012 Data provided by the European Environmental Agency – Not published

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.

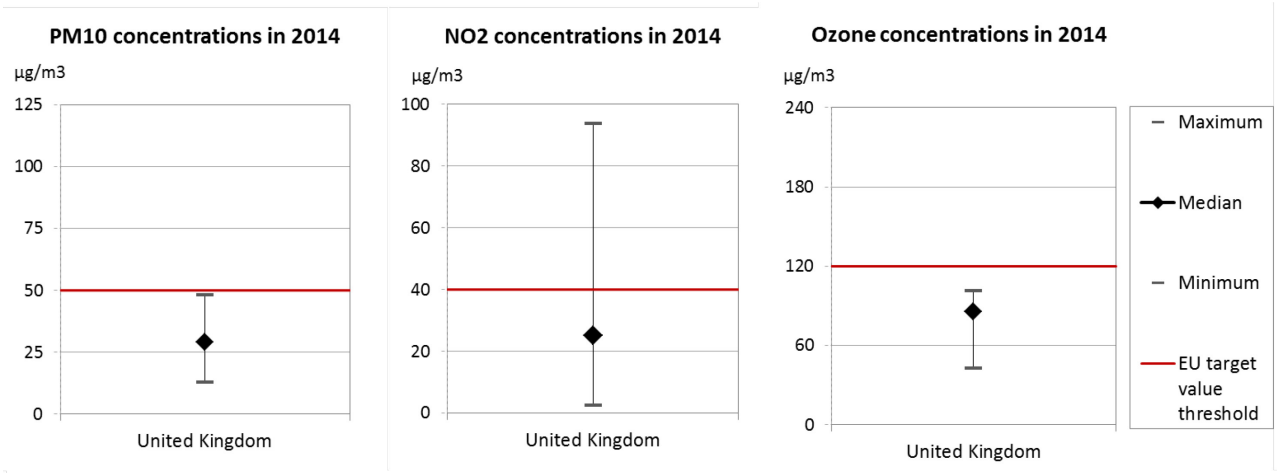
The EU has developed a comprehensive suite of air quality legislation [50], which establishes health-based standards and objectives for a number of air pollutants. As part of this, Member States are also required to ensure that up-to-date information on ambient concentrations of different air pollutants 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 the UK[51]. Reductions between 1990 and 2014 for sulphur oxides (-92%), nitrogen oxides (-68%), ammonia (-13%) as well as volatile organic compounds (-70%) ensure air emissions for these pollutants are within the currently applicable national emission ceilings.[52]

At the same time, air quality in the United Kingdom continues to give cause for concern. For the year 2013, the European Environment Agency estimated that about 37 930 premature deaths were attributable to fine particulate matter [53] concentrations, 710 to ozone [54] concentration and over 11 940 to nitrogen dioxide [55] concentrations[56]. This is due also to exceedances above the EU air quality standards such as shown in Figure 9[57].

For 2014, exceedances above the EU air quality standards have been registered related to nitrogen dioxide (NO_2) in 30 air quality zones. The long-term objectives regarding ozone concentrations are not being met in 32 air quality

Figure 9: Attainment situation for PM_{10}, NO_2 and O_3 in 2014



Note: *These graphs show concentrations as measured and reported by the Member State at different locations; specifically they show, (a) for PM10, the 90.4 percentile of daily mean concentration, which corresponds to the 36th highest daily mean, (b) for NO2, the annual mean concentration, and (c) for O3, the 93.2 percentile of maximum daily 8-hour mean concentration values, which corresponds to the 26th highest daily maximum. For each pollutant they depict both the lowest and highest concentration reported, as well as the median values (i.e. note that 50% of the stations report lower concentrations than the respective median value, the other 50% report higher concentrations). The air quality standards as set by EU legislation are marked by the red line.*

[50] European Commission, 2016. Air Quality Standards

[51] See EIONET Central Data Repository and Air pollutant emissions data viewer (NEC Directive)

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

[53] Particulate matter (PM) is a mixture of aerosol particles (solid and liquid) covering a wide range of sizes and chemical compositions. PM10 (PM2.5) refers to particles with a diameter of 10 (2.5) micrometres or less. PM is emitted from many human sources, including combustion.

[54] Low level ozone is produced by photochemical action on pollution and it is also a greenhouse gas.

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

[56] European Environment Agency, 2016. Air Quality in Europe – 2016 Report. (Table 10.2, please see details in this report as regards the underpinning methodology).

[57] Based on European Environment Agency, 2016. Air Quality in Europe – 2016 Report. (Figures 4.1, 5.1 and 6.1)

zones. In addition, target values for annual mean concentrations have been exceeded in three air quality zones for nickel and in six air quality zones for benzo(a)pyrene[58].

The persistent breaches of air quality requirements (for NO_2), which have severe negative effects on health and environment, are being followed up by the European Commission through infringement procedures covering all the Member States concerned, including the United Kingdom. The aim is that adequate measures are put in place to bring all zones into compliance. In addition, national court action is underway challenging the adequacy of the measures currently proposed by the United Kingdom to tackle this problem.

It has been estimated that the health-related external costs from air pollution in the United Kingdom are above EUR 28 billion/year (income adjusted, 2010). These direct economic costs relate to 6 million workdays lost each year due to sickness related to air pollution, with associated costs for employers of EUR 793 million/year (income adjusted, 2010), for healthcare of above EUR 101 million/year (income adjusted, 2010), and for agriculture (crop losses) of EUR 237 million/year (2010)[59].

Suggested action

- Maintain downward emissions trends of air pollutants in order to achieve full compliance with air quality limit values - and reduce adverse air pollution impacts on health, environment and economy.
- Reduce nitrogen oxide (NO_x) emissions to comply with currently applicable national emission ceilings[60] and/or to reduce nitrogen dioxide (NO_2) (and ozone concentrations), inter alia, by reducing transport related emissions - in particular in urban areas.

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]. 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.

UK authorities have fulfilled all their obligations with regards to the Environmental Noise Directive[62] for the current reporting period.

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] 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.

The UK has provided information to the Commission from its second generation of RBMPs. However, as the Commission has not yet been able to validate this information for all Member States, it is not reported

[58] See The EEA/Eionet Air Quality Portal and the related Central Data Repository

[59] These figures are based on the Impact Assessment for the European Commission Integrated Clean Air Package (2013)

[60] Under the provisions of the revised National Emission Ceilings Directive, Member States now may apply for emission inventory adjustments. Pending evaluation of any adjustment application, Member States should keep emissions under close control with a view to further reductions.

[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, Copenhagen, Denmark

[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.

[63] This includes the Bathing Waters Directive (2006/7/EC); the Urban Waste Water Treatment Directive (91/271/EEC) concerning discharges of municipal and some industrial waste waters; the Drinking Water Directive (98/83/EC) concerning potable water quality; the Water Framework Directive (2000/60/EC) concerning water resources management; the Nitrates Directive (91/676/EEC) and the Floods Directive (2007/60/EC)

here.

In its first generation of RBMPs the United Kingdom reported the status of 9080 rivers, 1119 lakes, 192 transitional, 570 coastal and 656 groundwater bodies. Only 41% of natural surface water bodies achieve a good or high ecological status[64] and 27% of heavily modified or artificial water bodies[65] achieve a good or high ecological potential. Only 41% of surface water bodies (while the status of 58% is unknown), 23% of heavily modified and artificial water bodies (73% unknown) and 74% of groundwater bodies achieve good chemical status[66]. 79% of groundwater bodies are in good quantitative status[67].

The main pressure on the UK surface waters is diffuse pollution [68] that affects 68% of water bodies. Flow regulation and morphological alterations affect 45% followed by point sources of pollution that affect 44% of water bodies. River management affects negatively 30% of water bodies and abstraction 14% of water bodies. There are some regional differences, e.g. diffuse sources of pollution affect 90% of water bodies in the Anglian river basin district but only 16% in the Scotland river basin district.

The UK RBMPs have some deficiencies that result in uncertainties about the status and effectiveness of Programmes of Measures. In particular there are weaknesses in ecological status assessment and the lack of effective measures to address diffuse pollution from agriculture[69]. A high number of exemptions were applied. The planned measures are expected to result in improvement of ecological status of surface water bodies by 9%. The measures should also bring improvement of ecological potential of artificial and heavily modified water bodies by 3% and chemical status by 1%. The chemical status of groundwater is expected to improve by 6% and quantitative status by 1%.

The UK indicated phosphorus loading from agriculture needs to reduce by 28-43% to meet revised phosphate standards in the second cycle of river basin management plans. Agriculture is responsible for 50-60% of the nitrogen in surface waters. The UK developed an Excel-based tool, FARM Scale Optimisation of Pollutant Emission Reductions (FARMSCOPER), to characterise diffuse agricultural pollutant emissions from representative farm types and quantify the expected impacts of control options on those losses to the environment. The first catchment scale application of the FARMSCOPER tool suggested that technically feasible pollutant reductions on the basis of the implementation of more mitigation options could be of the order of 47% for phosphorus, 66% for sediment, 22% for nitrate and 16% for nitrous oxide (Zhang et al 2012). The UK is currently reviewing the Nitrates Action Programmes applying to England, Scotland and Wales and could use the opportunity to strengthen the measures in their action programme to achieve some of the pollution reductions identified above. Furthermore, implementation on the ground of some measures (e.g. poor record keeping) is a challenge. Additionally, some requirements (e.g. storage capacity) have been deferred until 2012 and there is either no information or some indication of challenges to comply with the requirements[70].

As regards drinking water, the United Kingdom reaches very high compliance rates of 99-100% for microbiological, chemical and indicator parameters laid down in the Drinking Water Directive[71].

As shown in Figure 10, in 2015 in the United Kingdom, out of 633 bathing waters, 59.6 % were of excellent quality, 27.5 % of good quality and 7.6 % of sufficient quality. 31 bathing waters were of poor quality or non-compliant while it was not possible to assess the remaining 3 bathing waters. [72] This represents a significant decrease of bathing waters with excellent quality compared to 2014, which may be partly due to the fact that the UK only started to use the new bathing water standards for the 2015 bathing water season.

With regard to the implementation of the Urban Waste Water Treatment Directive, the latest reported data indicate high compliance rates, even though some non-compliances still subsist[73]. The UK is still in the process of implementing a Court ruling concerning London (C-301/10, 18 October 2012) by building a tunnel under the Thames. The UK has also been struggling with storm water overflows issues, which are progressively being addressed by innovative solutions (e.g. sustainable urban

[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.

[65] Many European river basins and waters have been altered by human activities, such as land drainage, flood protection, and building of dams to create reservoirs.

[66] 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.

[67] For groundwater, a precautionary approach has been taken that comprises a prohibition on direct discharges to groundwater, and a requirement to monitor groundwater bodies.

[68] Diffuse pollution comes from widespread activities with no one discrete source.

[69] According to the UK authorities issues have been resolved in the revised RBMPs.

[70] UK report to the Commission on the state of implementation of the Nitrates Directive in the United Kingdom 2007-11

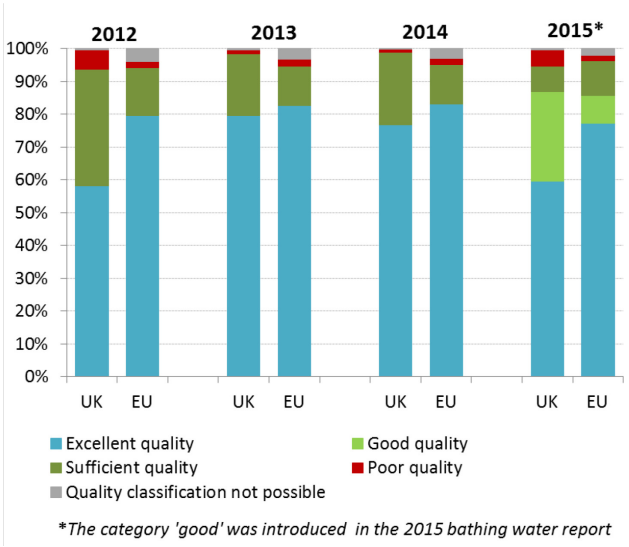
[71] Commission's Synthesis Report on the Quality of Drinking Water in the Union examining Member States' reports for the 2011-2013 period, foreseen under Article 13(5) of Directive 98/83/EC; COM(2016)666

[72] European Environment Agency, 2016. European bathing water quality in 2015, p. 26

[73] European Commission, Eighth Report on the Implementation Status and the Programmes for Implementation of the Urban Waste Water Directive (COM (2016)105 final) and Commission Staff Working Document accompanying the report (SWD(2016)45 final).

drainage systems). The Commission is following-up on the above-mentioned issues.

Figure 10: Bathing water quality 2012 – 2015[74]



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

The estimated investment needs (reported by the UK under Article 17 of the Urban Waste Water Treatment Directive) to reach full compliance with the Directive are of EUR 882 million[75].

Flood risk areas have been identified and mapped in England. Over the last decade England has regularly experienced flooding incidents with significant economic damage costs. Approximately 1 in 6 properties in England are at risk of flooding from rivers or the sea. Between 2002 and 2013, for the 22 floods in England, 10 floods in Northern Ireland, 6 floods in Scotland and 10 floods in Wales the total direct costs amounted to EUR 23,000 million. The average cost of floods extrapolated in the UK was around EUR 480 million.[76].

The management and prevention of floods is an area where the potentially more economical nature based solutions could improve resource efficiency through reducing costs and delivering multiple benefits. Within the English ERDF programme two priorities totalling EUR 179 million include allocations for climate change adaption, risk prevention, floods and green infrastructure; out of which EUR 70 million (priority axis 5) is available for better protection from floods and coastal risks.

Suggested action

- Improve water policy in line with the intervention logic of the Water Framework Directive in the second cycle of the RBMPs.
- Scale up nitrates prevention and reduction measures to meet water quality objectives, enhance control measures and include eutrophication caused by phosphorus when designating nitrate vulnerable zones.

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.[77] 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[78].

The European Commission will launch a new EU benchmark system in 2017[79].

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.

A point of excellence that is worth noted is that Bristol was the winner of the European Green Capital Award in 2015. Having spent an amount of EUR 500 million for transport improvements and EUR 300 million for energy efficiency and renewable energy, Bristol is aiming to become a European hub for low-carbon industry[80].

[74] European Environment Agency, State of bathing water, 2016

[75] European Commission, Eighth Report on the Implementation Status and the Programmes for Implementation of the Urban Waste Water Directive (COM (2016)105 final) and Commission Staff Working Document accompanying the report (SWD(2016)45 final).

[76] 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.

[77] European Environment Agency, Urban environment

[78] http://urbanagendaforthe.eu/

[79] The Commission is developing an Urban Benchmarking and Monitoring ('UBaM') tool 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.

[80] European Commission, 2015. European Green Capital Award Bristol

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.

The United Kingdom has signed and ratified almost all MEAs. It has signed but not yet ratified the Helsinki Convention on Watercourses and Lakes.

Part II: Enabling Framework: Implementation Tools

4. Market based instruments and investments

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, in 2014 the revenue derived from environmental taxes by the United Kingdom was with 2.48% slightly above the EU28 average (2.46%), having fluctuated over the past years, but is currently similar to the share seen in 2004 (2.51%)[81].

Comparing the revenue generated by environmental taxation as a percentage share of GDP against the same measure for other Member States, the United Kingdom ranked 15th in the EU28 for 2014. In the same year environmental tax revenues accounted for 7.54% of total revenues from taxes and social-security contributions (EU28 average: 6.35%) as shown in Figure 11.

It has to be noted that besides the yearly report of the Office for National Statistics on environmental taxes based on European standards, in 2010, the UK government committed to increase the proportion of revenues from environmental taxes and developed to this end a separate definition to measure this which was narrower than the definition of Eurostat[82]. The narrower UK definition included six taxes: climate change levy, aggregates levy, landfill tax, EU emissions trading system, carbon reduction commitment energy efficiency scheme and carbon price floor.

A 2016 study[83] suggests that there is considerable potential for additional revenue from environmental taxes. Under a good practice scenario[84] these could generate an additional GBP 6.44 billion (EUR 8.08 billion) in 2018, rising to GBP 14.37 billion (EUR 18.02 billion) in 2030 (both in real 2015 terms). This is equivalent to an increase by 0.32% and 0.54% of GDP in 2018 and 2030, respectively[85].

Figure 11: Environmental tax revenues as a share of total revenues from taxes and social contributions (excluding imputed social contributions) in 2014[86]

[81] Eurostat, Environmental tax revenues, accessed June 2016

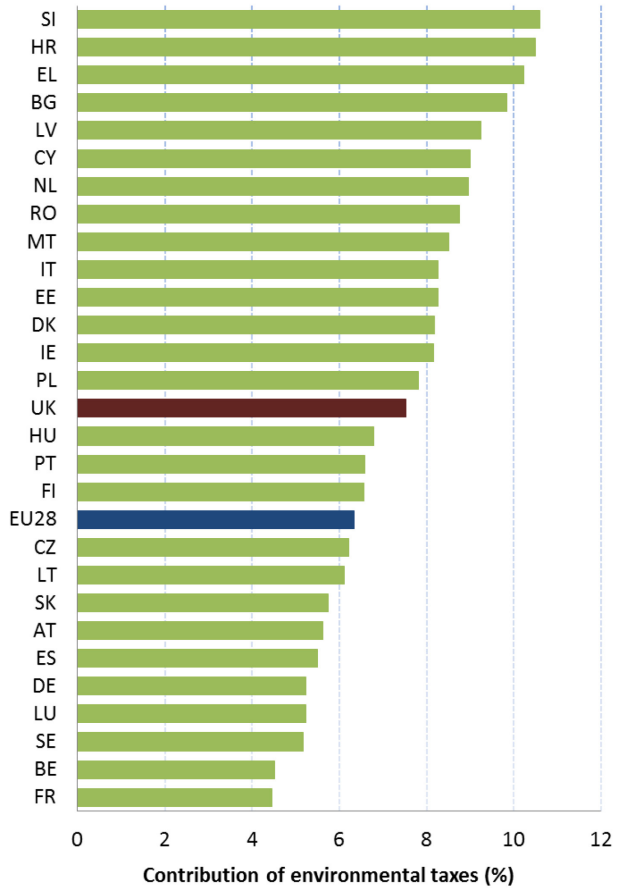
[82] The narrower UK definition included six taxes: climate change levy, aggregates levy, landfill tax, EU emissions trading system, carbon reduction commitment energy efficiency scheme and carbon price floor. UK government's definition of environmental taxes

[83] Eunomia Research and Consulting, IEEP, Aarhus University, ENT, 2016. Study on Assessing the Environmental Fiscal Reform Potential for the EU28. 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.

[84] The good practice scenario means benchmarking to a successful taxation practice in another Member State.

[85] Eunomia Research and Consulting, IEEP, Aarhus University, ENT, 2016. Study on Assessing the Environmental Fiscal Reform Potential for the EU28

[86] Eurostat, Environmental tax revenues, accessed October 2016



The largest additional source of revenue comes from the suggested harmonisation of taxes on transport fuels, generating GBP 8.96 billion in 2030 (EUR 11.24 billion) of revenue generated in 2030 (real 2015 terms), equivalent to 0.34% of GDP. The next largest contribution to revenue comes from the proposed water abstraction tax. This accounts for GBP 1.17 billion (EUR 1.46 billion) in 2030 (real 2015 terms), equivalent to 0.04% of GDP.

The UK still applies reduced VAT rates for domestic fuel and power as well as preferential excise duties for other fossil such as kerosene, what stimulates the use of fossil fuels.

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[87]. 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[88].

The UK is one of the frontrunners on GPP. In the UK[89], the Greening Government Commitments set out the overall policy for central Government on Greening operations including procurement for central Government and related agencies. In addition, a Local Government Sustainable Procurement Strategy and strategies for the Scottish Government, the Welsh Government and the government for Northern Ireland exist.

The Greening Government Commitments apply to all Government Departments and their related agencies. It is a political and administrative commitment, but not a legal requirement. Where centralised contracts are developed, it is mandatory for Departments to use them.

Currently, criteria are set for 12 major products groups: construction, building products, cleaning products, electrical goods, food and catering, furniture, horticulture, office ICT, paper, textiles, transport, and water using products. In total, they cover around 60 products, and include criteria sets at 2 levels - `mandatory minimum' and `voluntary best practice'. The GPP targets are embedded in in departmental and centralised procurement contracts through Government Buying Standards.

According to a 2010 study, the share of UK authorities that included GPP requirements in between 50% and 100% of their contracts was estimated between 40 and 50%, one of the highest values overall[90].

Investments: the contribution of EU funds

European Structural and Investment Funds Regulations provide that Member States 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.

[87] European Commission, 2015. Public procurement

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

[89] European Commission, 2015. Documentation on National GPP Action Plans

[90] Adelphi et al., 2011. Strategic Use of Public Procurement in Europe

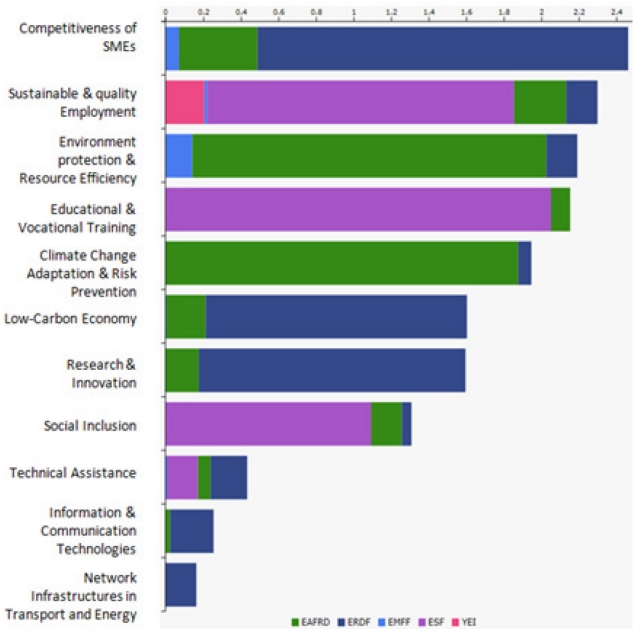
Making good use of the European Structural and Investment Funds (ESIF)[91] is essential to achieve the environmental goals and integrate these into other policy areas. Other instruments such as the Horizon 2020, the LIFE programme and European Fund for Strategic Investment[92] (EFSI) may also support implementation and spread off best practice.

United Kingdom benefits, through 17 national and regional programmes, from ESIF funding of EUR 16.4 billion over the period 2014-2020 [93] . EUR 5825.6 million (35.5%) is coming from the European Fund for Regional Development (ERDF), EUR 5199.7 million (31.7%) from the European Agricultural Fund for Rural Development (EAFRD), EUR 213.1 million (1.5%) from the European Maritime and Fisheries Fund (EMFF), EUR 4942.6 million (30.1%) from the European Social Fund and EUR 206.1 million (1.3%) is used for the Youth Employment Initiative (YEI).

In total, EUR 2191.2 million a dedicated to the Thematic objective *Environment Protection and Resource efficiency* (TO6), EUR 1884.4 million through the different EAFRD programmes, EUR 164.7 million through the ERDF programmes and EUR 142.1 million through the EMFF programme. In addition, EUR 1604.2 million is foreseen for TO4 *Low Carbon Economy* and EUR 1949.8 million for TO5 *Climate Change Adoption and Risk Prevention* (see figure 12).

With regard to the integration of environmental concerns into the Common Agricultural Policy (CAP), the two key areas for the United Kingdom (as for all Member States) 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'.

Figure 12: European Structural and Investment Funds 2014-2020: Budget United Kingdom by theme, EUR billion[94]



The total Rural Development (EAFRD) budget for the UK is EUR 2.689 million/year, with 73,1 % of budget allocated to Priority 4 (the main environmental priority). The RDPs for England, Northern Ireland and Scotland have commendably high allocations to environmental and climate change measures (79-82%), but for Wales the focus on environment is lower (60%) and there was a substantial reduction in effort on agri-environment-climate measures (19% to 24%). To improve this situation, Wales would need to focus its AECM on higher tier measures, and incorporate the basic measures in the compulsory baseline. Overall there is a good focus on biodiversity, and the water measures are well targeted to achieve improvements in achieving WFD goals.

With regard to the 1st pillar of the CAP, the UK national direct payment envelope is about EUR 3150 billion per year, of which the 30 % allocated for greening is about EUR 950 billion/year.) 50-60% of farms and farm area are covered by the greening. Over 60% of the EFA is fallow land, landscape features (hedges) and buffer strips; the rest is largely nitrogen fixing crops.

It is too early to draw meaningful conclusions as regards the use and results of ESIF funds for the period 2014-2020, as the relevant programmes are still in an early stage of their implementation.

Current data suggest that the EU funds for the 2007-2013 period were almost sully spent[95].

The UK provides with its National infrastructure pipeline[96] an overall picture of planned investment in infrastructure, across both public and private sectors, to 2020 and beyond. The pipeline includes large capital

[91] 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.

[92] EIB: European Fund for Strategic Investments

[93] European Commission : European Structural and Investment Funds Country Data for UK

[94] European Commission, European Structural and Investment Funds Data By Country

[95] Final data of the 2007-2013 period will only be available at the end 2017.

[96] UK National Infrastructure Pipeline

projects and programmes of investment worth GBP50 million or more across communications, energy, flood defences, science & research, transport, waste and water.

The UK announced that it will contribute EUR 8.5 billion to projects benefiting from the European Funds for Strategic Investments (EFSI)[97]. The 16 approved projects amount to over EUR 2.8 billion in European Investment Bank (EIB) financing under the European Fund for Strategic Investments (EFSI). This is expected to trigger nearly EUR 16.8 billion in investments[98]. Several of these projects will have favourable environmental impacts, like the projects *Smart Meters*, and the two energy efficiency funds and one renewable energy equity fund.

An Integrated LIFE Project (EUR 20 million) [99] will contribute to the implementation of River Basin Management Plans in the North West River Basin District in England and Wales.

[97] European Commission, 2015. Investment Plan for Europe: European Fund for Strategic Investments
[98] European Commission, 2016. Investment Plan - State of play
[99] LIFE Programme – integrated LIFE projects (Feb 2016)

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[100]. 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

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 transposition of the revised EIA Directive[101] 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. Moreover, streamlining helps reducing unnecessary administrative burden and accelerates decision-making, without compromising the quality of the environmental assessment procedure. The Commission has issued a guidance document in 2016 regarding the setting up of coordinated and/or joint procedures that are simultaneously subject to assessments under the EIA Directive, Habitats Directive, Water Framework Directive, and the Industrial Emissions Directive[102]. The implementation of this new Directive is also an opportunity that the UK authorities should use to ensure that previous practices of granting development consent and allowing construction to go ahead before all environmental permitting processes are completed are not repeated in future.

With regard to so-called Strategic Environmental Assessment (SEA) Directive[103], the UK has generally transposed this Directive well. However, the Commission has received a number of complaints that the Directive is not fully applied to certain large transport infrastructure projects. This is a matter that the UK authorities should try to clarify for future decisions on developments such as high speed rail expansion. The SEA Directive provides a key opportunity for the environmental impacts of alternatives to a proposed project to be fully assessed

[100] The Commission has work ongoing to improve the country-specific knowledge about quality and functioning of the administrative systems of Member States.

[101] The transposition of Directive 2014/52/EU is due in May 2017.

[102] European Commission, 2016. Guidance document on streamlining environmental assessments conducted under Article 2(3) of the Environmental Impact Assessment Directive.

[103] European Commission, Strategic Environmental Assessment Directive 2001/42/EC

and for the public to comment.

In general the UK has a good record for communicating new implementing legislation on time. However, a UK trend, in particular in England, of transposing by reference is likely to lead to increased numbers of non-conformity cases in the future. Whilst there is no inherent objection to the practice of such transposition techniques, if the process is used in excess it leaves the national legislation failing to explain the full scope of the obligations and how they should be applied by national decision makers, operators and members of the public.

There are currently 11 infringements in the following areas:

- Directive 91/271/EEC on Urban Waste Water Treatment (2 cases).
- Directive 2001/80/EC on the limitation of emissions of certain pollutants into the air from large combustion plants.
- Directive 2008/50/EC on ambient air quality and cleaner air for Europe.
- Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment (case also concerns Natura 2000 and IPPC breaches).
- Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (3 cases).
- Directive 2003/35/EEC providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC.
- Directive 2000/60/EU establishing a framework for Community action in the field of water policy (non-conformity).
- Directive 2006/21 EC on the management of waste from extractive industries (non-conformity).

In some of the environmental cases where individuals or NGOs have gained access before the national courts over the past years, the UK judges referred several requests for preliminary rulings to the Court of Justice of the EU. This represented a valuable contribution to the development of EU environment law, since preliminary rulings enable the Court of Justice to give a coherent interpretation of the EU law.

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[104] 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.

Figure 13: Environmental compliance assurance

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*[105], *EUFJE*[106], *ENPE*[107] *and EnviCrimeNet*[108], is a valuable tool for sharing experience and good practices.

Currently, there exist a number of sectoral obligations on

[104] European Union, Environmental Crime Directive 2008/99/EC
[105] European Union Network for the Implementation and Enforcement of Environmental Law
[106] European Union Forum of judges for the environment
[107] The European Network of Prosecutors for the Environment
[108] EnviCrimeNet

inspections and the EU directive on environmental liability (ELD)[109] 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[110].

In the United Kingdom, risk-based methods and a related broad mix of compliance assurance interventions are evident at strategic and operational levels:

- The UK has established good compliance promotion practices. These include structured dialogues with the regulated community and systematic use of the Internet-based NetRegs compliance assistance tool created in partnership between the Northern Ireland Environmental Agency (NIEA) and the SEPA in Scotland to provide free environmental guidance to small and medium-sized businesses[111]. Similar web-based tools are provided also by the Environment Agency in England[112];
- Risk based assessments to classify sectors, target inspection work and inform inspection frequencies are widely used. The Environment Agency of England, for instance, has developed the *Operational Risk Appraisal (Opra)* scheme to enable a common approach to regulation and to target those industries that pose the greatest risk to the environment[113];
- Tools, such as the Scottish Environmental Protection Agency (SEPA) Compliance Spectrum Model, have been developed for analysis of causes of non-compliance to enable proper selection of regulatory interventions to tackle different types of non-compliant behaviour;
- Use of audit to evaluate performance strategically[114];
- The UK Sentencing Council has developed guidance on the penalties for environmental crimes to make the enforcement system more effective and proportionate[115].

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

- data collection arrangements to track the use and effectiveness of different compliance assurance interventions.
- the extent to which risk-based methods are used to direct compliance assurance in specific problem-areas highlighted elsewhere in this Country Report, in particular the unfavourable conservation status of many habitat types and species, air quality breaches and the pressures on water quality from diffuse water pollution.

As a founding member, UK is one of the main driving forces of the IMPEL network, taking leadership for many individual projects and contributing to the internal network governance. It is actively involved also in the work of other networks, such as ENPE, EUFJE and NEPA. Environmental networks have also been established at national level to ensure better cooperation and coordination: for instance, a Partnership for Action against Wildlife Crime (PAW) was established to bring together representatives of all organisations involved in wildlife law enforcement and to set joint priorities[116] and a waste crime task force has been established by the Environmental Agency.

Together with The Netherlands, Germany and other Member States, the United Kingdom prepared in the framework of the 'Make it Work' project principles for drafting provisions on compliance assurance in EU Environmental law[117].

The United Kingdom is among the only nine Member States which have issued national guidelines on the

[109] European Union, Environmental Liability Directive 2004/35/CE

[110] COM(2016)204 final and COM(2016)121 final 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.

[111] NetRegs, Environmental Guidance For Your Business in Northern Ireland and Scotland

[112] Detailed information on the Environment Agency is available here: https://www.gov.uk/government/organisations/environment-agency/services-information

[113] Opra currently covers installations subject to the Environmental Permitting Regulations (large industrial and waste management facilities). It is a software-supported tool designed to score operators on the basis of environmental hazard of a regulated facility (its complexity in terms of multimedia impacts, location with respect to urban and environmentally sensitive areas, volume of pollution releases) and its operator's performance (compliance record and environmental management practices). Opra also helps to calculate administrative charges for such facilities. Source: Environment Agency

[114] See for instance the report of the National Audit Office of UK in relation to diffuse agricultural pollution.

[115] The recently revised sentencing guidelines have led to the English Environment Agency securing a number of 6 and 7 figure fines in quick succession. In January 2016, a privatised water company was fined GBP 1 million (approximately EUR 1.4 million) for water pollution offences.

[116] PAW includes statutory wildlife bodies, such as the conservation agencies, with the police and customs. It also includes non-governmental bodies, which are important partners. The PAW steering group sets the overall objectives for tackling wildlife crime, setting priorities. A Task and Co-ordination Group oversees that action is taken to meet the priorities.

[117] Make it Work Principles on Drafting Provisions on Compliance Assurance

interpretation of the transposing legislation. It also operates a public register of cases falling under the Environmental Liability Directive, containing useful information about the application of the Directive in the UK. Although it has a reasonable number of cases regarding the EU directive on environmental liability (20 in the period between 2007 and 2013), this number could be higher if the threshold interpreted by the UK authorities for the 'significance of a damage' was not that high, given the many instances of damage to natural resources treated under national legislation (for example around 400 for damage to water on annual average).

Suggested action

- Improve transparency on the organisation and functioning of compliance assurance and on how significant risks are addressed.
- Take further steps to ensure 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 ("the Aarhus 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.

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.

The UK has a legal system which allows for the pubic, including environmental NGOs, to take environmental cases to the courts. However, the high costs for litigation before the UK courts, remains one of the biggest deterrent in securing access to environmental justice across the UK[118]. The UK's jurisdictions introduced costs protection rules for environmental challenges in 2013 and are in the process of reviewing those rules[119].

Suggested action

- 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[120], the Access to Environmental Information Directive [121] and the INSPIRE Directive [122] 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[123]. 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')

[118] European Commission, 2012/2013 access to justice in environmental matters in the UK

[119] UNECE, 1998. Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters

[120]

[121] European Union, Directive 2003/4/EC on public access to environmental information

[122] European Union, INSPIRE Directive 2007/2/EC

[123] European Union, EU eGovernment Action Plan 2016-2020 - Accelerating the digital transformation of government COM(2016) 179 final

have been systematically reviewed.

United Kingdom's performance on the implementation of the INSPIRE Directive as enabling framework to actively disseminate environmental information to the public is good, but leaves room for improvement. United Kingdom has indicated in the 3-yearly INSPIRE implementation report [124] 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. The UK simplified its licensing arrangements and the Open Government Licence, promoted for use by public bodies, is now widely used.

Assessments of monitoring reports[125] issued by United Kingdom and the spatial information that United Kingdom has published on the INSPIRE geoportal [126] 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

- 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.

[124] European Commission, INSPIRE reports
[125] Inspire indicator trends
[126] Inspire Resources Summary Report