



**European Committee
of the Regions**

Effective multi-level environmental governance for a better implementation of EU environment legislation



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Summary

The Environmental Implementation Review (EIR), launched by the European Commission in May 2016, aims to increase knowledge on the implementation of EU environmental law and support more effective implementation in the Member States. In the context of the EIR, in February 2017 the Commission published a Communication identifying common challenges across Member States and common underlying root causes for poor implementation of EU environmental legislation. The Communication identified six root causes related to coordination across levels of governance, administrative capacity, financing, knowledge and data, compliance assurance and policy integration.

The present study aims to inform the work of the European Committee of the Region in the drafting of an Opinion on the EIR, to be adopted in October 2017. The desk research and survey conducted for this study aimed to determine the ways in which the previously identified root causes of insufficient implementation of environmental legislation are linked to multi-level governance issues. The study also identifies actions that successfully address these root causes, and provides recommendations on how to improve cooperation with, and better support, local and regional authorities for an effective multi-level governance in the implementation of EU environmental law.

The effectiveness of multi-level governance is an important determinant of how well Member States perform in the implementation of EU environmental law. Regional and local authorities have an important role in implementation, which, depending on Member States' governance structures, can be comprehensive and include the following activities:

- Spatial planning
- EIA / SEA procedures
- Environmental planning (e.g. air quality plans, river basin management plans, Natura 2000 management plans, etc.)
- Permitting
- Surveillance and enforcement
- Monitoring and reporting
- Provision of environmental services (e.g. waste collection, treatment and disposal; water supply; sewage collection and treatment) and investment in the necessary infrastructure

To have a comprehensive understanding of the root causes of insufficient implementation of EU environmental law, it is therefore important to examine

the role that multi-level governance plays in the delivery of environmental requirements across the EU.

- **Analysis of the root causes at regional and local level**

Coordination among local, regional and national environmental authorities

- *Vertical coordination*

Respondents to the survey indicated that effective coordination is not prevented primarily by structural issues – e.g. unclear or ineffective division of responsibilities – but by more voluntary aspects of coordination, such as the lack of coordination mechanisms and the lack of political will and appropriate institutional culture. The literature reviewed for this study, however, identified the unclear division of responsibilities as an important factor. It also demonstrated that the lack of coordination of policy objectives and actions at the different levels of governance impeded effective implementation of environmental legislation.

- *Horizontal coordination*

As with vertical coordination, survey respondents considered that structural aspects (e.g. legal requirements) were less important than cultural aspects and gave preference to the lack of political will and appropriate institutional culture and the lack of participation in networks as the main barriers to horizontal cooperation. The literature reviewed for this study confirmed horizontal cooperation is not sufficiently embedded in administrative culture.

Administrative capacity of local and regional authorities

Survey respondents flagged that the lack of resources – both financial and human – is the main factor limiting administrative capacity. Survey respondents often mentioned in open questions that the allocation of state budget was not proportionate to their tasks, often because competences were transferred to local and regional authorities without the appropriate transfer of resources.

Use of European and other funding and of market based instruments for the implementation of EU environmental legislation at local and regional level

Survey respondents considered the complexity of procedures to be the most important barrier to better use of EU funding; this was followed by the insufficient allocation of co-financing from the national level. Less emphasis was placed on issues related to the programming of funds and the prioritisation of environment within those programmes. Regarding the effective participation in the planning and implementation of EU funds, the most significant challenge

was the participation of local and regional authorities in networks dedicated to promoting environmental investments; issues related to participation and consultation in programming funds came close behind. In relation to absorption capacity, with a focus mainly on larger infrastructure projects, again, the issue of securing co-financing was given the most weight by survey respondents. Based on the results of the three survey questions, it seems that prioritisation of the environment within programming and project planning is less of a problem than the actual accessing of funding during the programme implementation stage. The literature reviewed confirmed that local and regional authorities are not always well equipped to take advantage of available EU funds and do not sufficiently benefit from Technical Assistance funds under Cohesion Policy.

Policy integration and coherence

According to survey respondents, the poor integration of environmental concerns in sectoral policies and the poor coordination of sectoral departments with environmental policy developers were the main barriers to environmental policy integration. The lack of cooperation with industrial stakeholders came in third position. Respondents reported difficulties in reconciling conflicting interests at local level, the weak standing of environmental issues when arbitrations have to be made or the administrative culture of working in isolation from other departments, which were also mentioned as prominent barriers in the literature reviewed for this study.

Knowledge and data

Survey respondents indicated that the lack of dedicated resources for monitoring and reporting was the main barrier to the achievement of their responsibilities in that area, followed by the lack of vertical and horizontal coordination in monitoring, and the lack of guidance for regional and local authorities. Issues with human resources, technical capacity and the implementation of data sharing policies at national level were also identified in the literature.

Compliance assurance mechanisms

According to survey respondents, the lack of financial and human resources was the main factor impeding effective enforcement at regional and local level. Other issues mentioned by respondents and the literature related to the coordination between all bodies responsible for enforcement (including police forces and public prosecutors), the difficulty – especially for lower enforcement authorities – to gather specialist skills, and the ineffectiveness of sanctions.

• Recommendations and examples of good practices

Based on the survey results and the literature reviewed for this study, the following recommendations, supported by illustrative examples, were proposed:

- **Developing further mechanisms for ensuring complementary and consistent implementation of policies across levels of governance**, which aim both to clear mandate to subnational levels regarding their environmental obligations, and increase the involvement of regional and local authorities at the stage of design and adoption of environmental policy.
- **Developing mechanisms for cooperation and exchanges across local authorities on concrete actions supporting implementation**, to improve implementation, achieve economies of scale and reduce compliance costs, and maximise the benefits of available specialist skills.
- **Enabling better access of local and regional authorities to EU funding for the implementation of environmental legislation** through the establishment of dedicated networks of environmental and managing authorities, or assistance to beneficiaries.
- **Promoting the integration of environmental concerns in sectoral policies**, by mainstreaming environmental issues across all areas of regional development. Examples of how this can be achieved include: coordination mechanisms, the establishment of sustainability indicators, or partnerships with industrial stakeholders.
- **Developing mechanisms to facilitate data sharing** through support mechanisms to help regional and local authorities in the sharing of their data. Such support includes the definition of datasets to be shared, guidance and training, and coordination mechanisms across levels of governance.
- **Developing coordination mechanisms for ensuring the consistency and quality of enforcement** involving specialised administrations responsible for compliance monitoring and inspections, specialised administrations responsible for public prosecution, and specialised police services.

1 Introduction and methodology

1.1 Structure of the report

The study is structured as follows:

- **Part 1** presents the objectives and information sources for the study
- **Part 2** provides an introduction to the root causes identified in the EIR's Communication in the context of multi-level governance
- **Part 3** describes the underlying aspects of the root causes, as identified by survey respondents and the literature reviewed for the study
- **Part 4** provides recommendations on solutions to address the root causes, illustrated by 15 examples of successful experiences.

1.2 Context and objectives of the study

The Environmental Implementation Review (EIR), launched by the European Commission in May 2016, aims to increase knowledge on the implementation of EU environmental law and support more effective implementation in the Member States. In the implementation of the EIR, the Commission has committed to liaise with the European Committee of the Regions (CoR), 'to engage with local and regional representatives in raising awareness about specific actions'¹, for instance through the Technical Platform for Cooperation on the Environment, set up by the CoR and the Commission. The seventh meeting of the platform in September 2016 focused on the EIR². The outcome of this dialogue will inform the Commission's future work on the EIR.

The first step in the EIR consisted of a series of twenty-eight country reports, which provided an overview of Member States' performance in implementing EU environmental legislation, highlighted main successes and implementation gaps and provided tailored recommendations to each Member State to address them. The last section of the country reports addressed governance and knowledge related issues. As a second step, the Commission will open high-level discussions on implementation gaps common to several Member States. Along with the country reports, the Commission published in February 2017 a Communication identifying common challenges across Member States and common underlying root causes for poor implementation of EU environmental

¹ Communication from the Commission to the European Parliament, the Council, the Economic and social Committee and the Committee of the Regions. Delivering the benefits of EU environmental policies through a regular Environmental Implementation Review. Brussels, 27 May 2016, COM(2016) 316 final.

² 7th Meeting of the Technical Platform, 'The new Environmental Implementation Review (EIR): What's in it for regions and cities?', 13 September 2016.

legislation³. The Communication identified six root causes related to coordination across levels of governance, administrative capacity, financing, knowledge and data, compliance assurance and policy integration.

In this context, the CoR is drafting an opinion on the EIR, which seeks to issue recommendations on:

- The common key implementation challenges and their underlying root causes, with a particular focus on effective multi-level environmental governance and local and regional capacity to implement rules;
- The involvement of the CoR and local and regional authorities in the different steps of the first and future EIR governance cycles; and
- Promoting interinstitutional cooperation with the European Commission, European Parliament and the Council on better implementation in the context of the EIR.

The present study aims to inform the work of the CoR by further analysing the root causes for poor implementation of EU law, in the context of multi-level governance. Like the EIR, the study mainly looks at the implementation of EU environmental legislation in Member States. Environmental multi-level governance is therefore understood as the coordinated action by Member States and local and regional authorities to draw up and implement EU environmental policies⁴. The study also identifies actions that successfully address these root causes, and provides recommendations on how to improve cooperation with, and better support, local and regional authorities for an effective multi-level governance in the implementation of EU environmental law. It focuses mainly on four policy areas, water management, air quality, nature protection and waste management.

1.3 Methodology

The study is based on data and information collected via desk research, and an online stakeholder survey.

1.3.1 Literature review

Academic literature

The research for academic literature was done using the Scopus database using

³ Communication from the Commission to the European Parliament, the Council, the 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. Brussels, 3 February 2017, COM(2017) 63 final.

⁴ Adapted from the definition of multi-level governance in the CoR's 2009 White Paper on multi-level governance.

the following keywords:

- “Multi-level governance”
- “Multi-level governance” and “EU environmental legislation” / and “EU environmental policy”
- “Multi-level governance” and “Water Framework Directive” / “Water management” / and “Waste framework Directive” / and “Waste management” / and “Air quality” / and “Habitats Directive” / and “Natura 2000” / and “Nature protection”
- “Regional authority” / “Local authority” and all keywords above

References were selected according to their relevance for the study and the six root causes. The list of references is included in the bibliography.

Grey literature

In addition to academic literature, other sources were reviewed from European Institutions, the OECD, networks of cities and regions, including the Urban Agenda, or work undertaken by the IMPEL network. The OECD Environmental Performance Reviews (EPR) from the last five years were included in the literature review. The list of references is included in the bibliography.

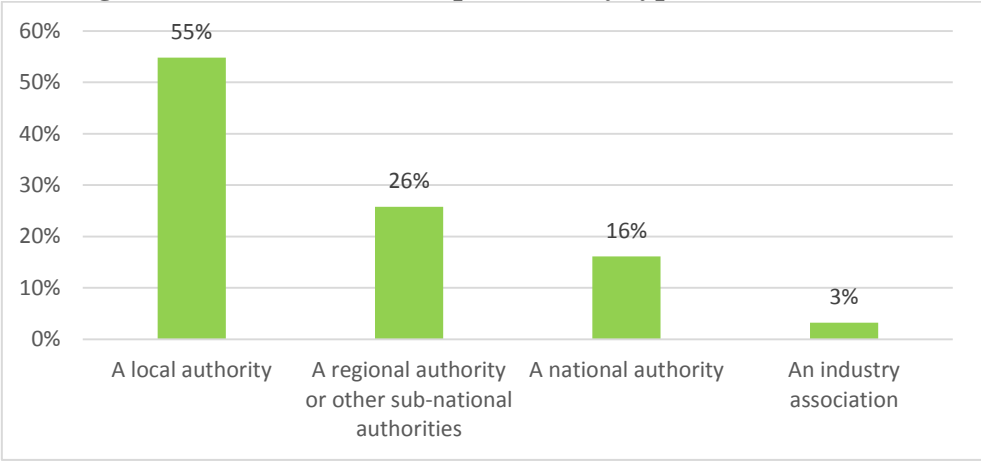
1.3.2 Online survey

The main purpose of the online survey was to gather stakeholders’ opinions on the underlying factors of the root causes and on identifying good practice actions to address them. The questionnaire (available in Annex 2) was drafted with a view to target a broad audience and collect specific examples of successful practices at regional or local level addressing the root causes. The questionnaire was disseminated by the CoR ENVE Secretariat, other CoR services and the European Commission, DG Environment to: European Commission Expert Group Greening the European Semester/ Environmental Implementation Review, Members of the European Green Cities and European Green Leaf Networks, CoR ENVE Commission members, CoR national coordinators, members of the CoR Subsidiarity Monitoring Network, members of the CoR network on the European Grouping of Territorial Cooperation (EGTC), European and national associations of local and regional authorities, European organisations of key stakeholders and European NGOs, and published on the website of the CoR Europe 2020 monitoring platform.

The survey was carried out on EU Survey, and was available to respondents from 1 June to 20 August 2017. The survey received 64 answers, mostly from local authorities (34 respondents) and regional authorities (16 respondents). Respondents who replied as individuals (originally seven) were counted with

national, regional or local authorities, depending on the type of authority they belonged to; where the type of authority was not possible to identify (two cases), responses were excluded. As only one association of local authorities replied, its response was aggregated with the responses of local authorities.

Figure 1: Distribution of respondents by types of stakeholders



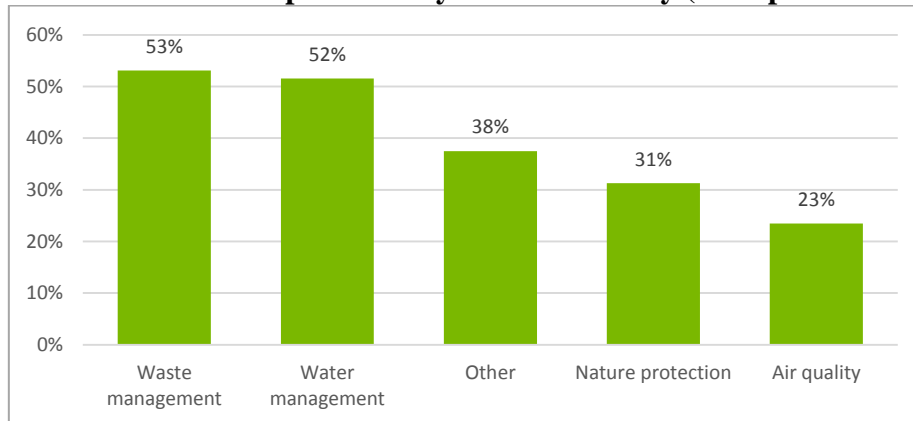
Responses were received from 20 countries (19 Member States, and one third country, Ukraine). A strong geographical bias can be observed as over half of the responses were submitted by respondents from Portugal – mostly local authorities from this Member State.

Table 1: Distribution of respondents by Member State

Member State	% of responses	Member State	% of responses
Portugal	52%	Estonia	2%
Bulgaria	6%	Greece	2%
Spain	6%	Italy	2%
Austria	5%	Luxembourg	2%
Belgium	5%	Netherlands	2%
Germany	3%	Poland	2%
Ireland	3%	Romania	2%
Croatia	2%	Slovak Republic	2%
Czech Republic	2%	United Kingdom	2%
Denmark	2%	Other	2%

The respondents' main areas of responsibility or expertise are water and waste management. Half of the respondents ticked several choices, the most frequent combination being water and waste management (11 respondents). Respondents who selected 'other' are responsible for or experts on EU funds / projects (4), land use / spatial planning (3), environmental noise (3), financial instruments / budgeting (2), environmental education (2), energy and climate (2), and forestry (1); in addition, four respondents suggested they had a larger portfolio of competences, and three are responsible for carrying out inspections.

Figure 2: Distribution of respondents by areas of activity (multiple choice question)



Respondents were asked to score, for each root cause, the importance of a number of underlying factors proposed to them, on a scale of 1 to 5 (1 if they considered the factor as not having any influence to 5 if they considered the factor to have a very significant influence). Results are presented in Part 3.

1.3.3 Selection of case studies

Case studies were found in the responses to the survey and in the literature review. A long list of potential cases was first established with all the examples found in the various sources of information. The selection of the 15 examples was based on the relevance of the cases to illustrate the recommendations, the availability of information on each case, and the necessity to cover a diversity of Member States and root causes. Follow-up interviews with survey respondents or relevant stakeholders were conducted to gather more information on the cases.

1.3.4 Input from IMPEL survey

The European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) ran a European survey⁵, at the same period as the

⁵ IMPEL, Implementation Challenge Survey 2017. Survey on obstacles and challenges to compliance with European Environmental Law. The survey ran for eight weeks between 30 May and 31 July.

survey conducted for this project, addressed to enforcement authorities at all levels in the networks' Member States⁶. The survey aimed to identify obstacles and challenges that competent authorities face when applying or enforcing EU environment legislation, and innovative practices and solutions developed to overcome them. During the project, the German Federal Ministry for the Environment shared the results of the survey carried out in Germany. The survey received 189 replies, from German regional (63%) and local (37%) authorities, responsible for implementation tasks in the areas of industry, noise and air quality regulation, waste and waste shipment, water protection and land legislation, and nature protection. These results were used as a source for this work where comparable with the survey done for this project.

⁶ IMPEL covers 36 countries, including all EU Member States, the former Yugoslav Republic of Macedonia, Serbia, Turkey, Iceland, Kosovo, Albania, Switzerland and Norway.

2 Introduction to the root causes for insufficient implementation of EU environment law

The effectiveness of multi-level governance is an important determinant of how well Member States perform in the implementation of EU environmental law. Since the 1990s, EU environmental legislation has increasingly promoted multi-level governance approaches, as a means to improve environmental policy implementation and compliance. To have a comprehensive understanding of the root causes of insufficient implementation of EU environmental law, it is important to examine the role that multi-level governance plays in the delivery of environmental requirements across the EU. This includes the cooperation of national and regional authorities with regional and/or local authorities, as well as local and regional environmental governance. This starts with an understanding of how EU environmental legislation mandates the involvement of local and regional authorities in its implementation, and the variety of ways in which this works across different environmental sectors and Member States.

Across the EU, multi-level governance in environmental law and policy is largely determined by the provisions of key EU environmental directives. The formulation and implementation of plans or programmes at subnational levels is an essential element of key EU pieces of legislation such as the Water Framework Directive (2000), the Environmental Noise Directive (2002), the Floods Directive (2007), the Air Quality Directives (1996-2008), the Habitats Directive (1992) and the Waste Framework Directive (1998). This takes place at different levels, according to the requirements of the EU legislation, and there are also different requirements for consultation and participation of state and non-state actors in these processes.

Taking into account the frequent mismatch between the scale of the environmental phenomenon and the boundaries of existing political or administrative jurisdictions at multiple levels, some EU environmental legislation requires that relevant plans are formulated at the level of the environmental phenomenon (e.g. river basins, zones and agglomerations where concentrations of pollutants exceed limit values etc.). As most Member States did not have such systems in place at the time of adoption of the EU legislation, this has usually required the establishment of new levels of governance in addition to the traditional multi-level governance systems (Newig and Koontz, 2014). Certain EU environmental directives also require, to varying degrees, the information and participation of local stakeholders and citizens. Through this, plans can take better consideration of local situations in the measures proposed and draw on the knowledge of local non-state actors. This approach to multi-level governance, which includes the formulation of a plan, the creation of a

spatially adapted scale of governance and the participation of non-state actors, has been termed ‘mandated participatory planning’ by Newig and Koontz (2014), and concerns mainly the European directives mentioned above. This is shown in Table 2 for the four main policy areas covered by the study.

Table 2: EU requirements regarding scale of governance, environmental planning and public participation

Area	Scale of environmental governance	Governance tool	Consultation and participation requirements
Water	River basins	River Basin Management Plan (RBMP) and Programmes of Measures (PoM) Floods management plans	Access to information. Participation of stakeholders to the production and update of the RBMP. Mandatory public consultation on RBMP. Public consultation in SEA of RBMPs.
Air	Air quality zone / agglomeration	Air quality plans	Access to information. Public consultation in SEA of air quality action plans / strategies
Waste	National / regional	National / regional waste management plans and waste prevention programmes	Public consultation in SEA of waste management plans
Nature	Protected sites	Natura 2000 site management plans (not compulsory)	Public consultation on appropriate assessment. Public consultation in SEA of regional / local biodiversity plans.

The transposition of these EU environmental requirements at Member State level has in certain cases required adapting or creating a new governance system (Water Framework Directive, Air Quality Directives), or at least allocating new responsibilities to existing institutions. Generally, local and regional authorities’ roles in the implementation of this legislation revolve around:

- Environmental planning
- Spatial planning
- Monitoring and reporting
- Enforcement
- Provision of environmental services (e.g. waste collection, treatment and

disposal; water supply; sewage collection and treatment) and investment in the necessary infrastructure

- Permitting
- EIA / SEA procedures

EU directives leave a large degree of freedom to Member States as regards the choice of the most suitable governance system, notably in the designation of governance scales (e.g. river basins, agglomerations), the distribution of competences between different authorities, the organisation of the process for adopting plans, and the degree of involvement of sub-national authorities and stakeholders. Some studies have found that, particularly in the implementation of the Water Framework Directive and the Air Quality Directives, Member States have, as far as possible, maintained their existing institutional structures and procedures (Jager et al., 2016; Gollata and Newig, 2017, Nielsen et al., 2013) rather than creating new ones. There remains, however, a variety of approaches to implementation across the EU, depending on their pre-existing multi-level governance systems and levels of decentralisation.

Regarding water management, regional authorities play a leading (as river basin authorities) or significant role in federal or regionalised countries, and a few other Member States (e.g. Poland, Sweden). In addition, local authorities (and local stakeholders) play a role in the development of RBMPs through stakeholder consultation and in certain cases have the responsibility to establish follow-up local management plans, translating the RBMP at local level (e.g. Denmark, France).

Regarding air quality planning, in most Member States, the responsibility for adopting and implementing Air Quality Action Plans lies with local or regional authorities (Urban Agenda, 2017). Waste management planning is in certain countries devolved to the regional level (e.g. Germany, Italy, Poland, Spain), or to municipalities (e.g. Denmark, Sweden); these plans usually must complement a national-level plan. In certain countries, planning is done at the level of waste regions or districts, purposefully created for the implementation of the Directive (e.g. Ireland) (Eunomia, 2015). Similar sharing of competences can be observed in the implementation of the Habitats Directive. The adoption of site management plans is devolved to the regional level in federal or quasi-federal countries (Italy, Spain) or in Sweden. Municipalities can be responsible for follow-up action plans (e.g. Denmark). Local authorities or stakeholders can also be associated with the drafting of the plan (e.g. Estonia, France).

Implementation of these environmental plans is mostly done at regional and local level, including operational tasks, such as collecting and treating solid waste and waste water. Depending on Member States' governance structures,

local and regional authorities can also have a role in permitting, monitoring, reporting and enforcement.

The desk research and survey conducted for this study aimed to determine the ways in which the previously identified root causes of insufficient implementation of environmental legislation are linked to multi-level governance issues. Based on the root causes identified by the EIR and the above understanding of the main interactions between multi-level governance and EU environmental legislation, the study has understood these root causes as follows:

- **Insufficient coordination among local, regional and national environmental authorities:** this directly addresses multi-level governance and refers to the situation where responsibilities are dispersed across several authorities without sufficient coordination.
- **Limited administrative capacity of local and regional authorities:** addresses the ability and resources of subnational and local authorities to carry out their duties regarding the implementation of environmental legislation. Administrative capacity is in part influenced by the effectiveness of coordination between levels of governance.
- **Insufficient use of European and other funding and market-based instruments:** this is understood, for the purpose of the study, as both the access and use of EU and national funding and the use of market-based instruments available to local and regional authorities. It relates to the planning and implementation of EU funds, and the barriers to accessing and absorbing available EU and national funds.
- **Insufficient policy integration and coherence:** this refers to the integration of environmental concerns in policies across all sectors at all levels of governance.
- **Insufficient knowledge and data:** this refers to the collection and reporting of environmental data as required by EU environmental legislation at multiple levels, and is linked to both the effectiveness of coordination and the administrative authorities.
- **Insufficient compliance assurance mechanisms:** these address compliance assurance mechanisms of EU requirements, which local and regional authorities have to enforce or comply with. This root cause is also linked to coordination and administrative capacity.

3 Challenges in the implementation of EU environmental law: analysis of the root causes at regional and local level

3.1 Coordination among local, regional and national environmental authorities

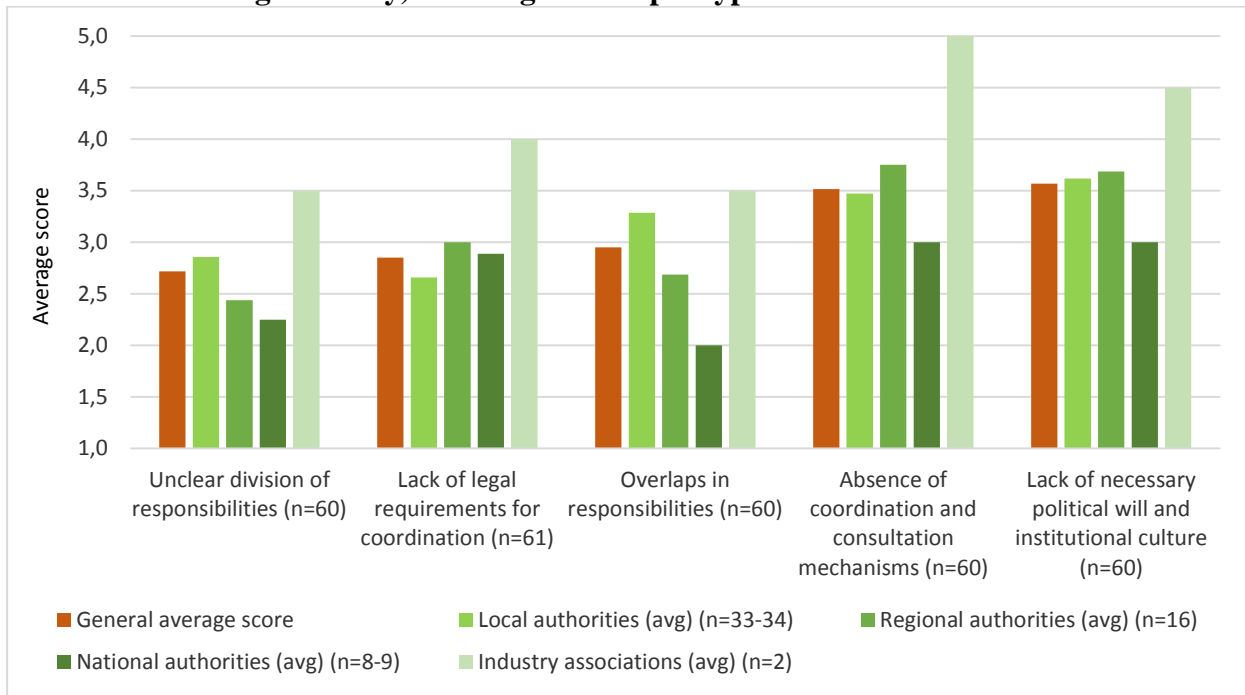
Decentralised decision-making and implementation responsibilities require coordination among authorities at the different levels of governance. Vertical coordination refers to relations between administrative levels (national, sub-national, local) and horizontal coordination to interactions between authorities and/or stakeholders at a specific territorial level (country, region, city etc.). Vertical coordination is needed for consistency between policy objectives, efficiency and complementarity of actions between levels of governance. Effective vertical coordination also ensures that authorities at all levels have access to the funds, tools and support they require in the implementation of their duties. Horizontally, coordination is needed as environmental issues generally cross administrative boundaries and require coordinated actions. In addition, cooperation of all types promotes economies of scale, and the pooling of resources and knowledge.

3.1.1 Vertical coordination

- **Survey results**

Respondents to the survey indicated that effective coordination is not prevented primarily by structural issues – e.g. unclear or ineffective division of responsibilities – but by more voluntary aspects of coordination, such as the lack of coordination mechanisms and the lack of political will and appropriate institutional culture. Two respondents, however, mentioned in follow-up questions that an unclear division of responsibilities led to inefficient implementation.

Figure 3: What are the most important factors impeding effective vertical coordination between national, regional and local authorities? (1 = not impeding; 5 = impeding very significantly) – average scores per types of stakeholders



- **EIR and OECD reports**

The literature reviewed for this study partially confirmed the findings of the survey, although it also mentioned the division of responsibilities and overlapping responsibilities as important factors. In particular, EIR country reports and OECD environmental performance reviews have shown that the coordination of public authorities is a recurring problem in countries where decision-making and responsibilities in implementation are dispersed over a large number of authorities, even though these countries have made important efforts in establishing cooperation fora. Similar remarks have been made for countries where enforcement responsibilities are decentralised.

- **Additional academic and grey literature**

In addition, the literature reviewed for this study has shown that the reorganisation of governance systems or creation of new levels of governance for the implementation of certain EU Directives (Water Framework Directive, Ambient Air Quality Directive) led, in some countries, to additional complexity and fragmentation in decision-making, difficulties of coordination between the various entities sharing responsibilities, and, in certain cases, conflicts between institutions (Soderberg, 2016; Domorenok, 2017). Soderberg (2016) concluded that the implementation of the Water Framework Directive in Sweden has led to ambiguities regarding the division of responsibilities and that stakeholders are unaware of the roles and responsibilities of all bodies involved. In particular, the role of the water boards at local level and the role of municipalities in the

Boards should be clarified. Generally, the reorganisation of governance required by the Water Framework Directive has led to more fragmentation of responsibilities, with decisions taken at river basin level, while implementation is expected to be carried out by national and local authorities, which has caused implementation problems. The new governance also required a change of culture, as the subnational level essentially became entitled to give orders to authorities at national level, which caused some resistance at the beginning.

Italy is another example where the implementation of the Water Framework Directive has led to more fragmentation of decision-making. Domorenok (2017) argues that the chaotic process for designating river basin authorities and designing the RBMPs has led to inter-institutional conflicts between different jurisdictions (mainly central government and regions) engaging in competitive rather than collaborative vertical relations and showing little capacity for horizontal coordination. According to Domorenok, a mechanism of inter-institutional coordination between institutions involved in water management is still missing. These two examples, while underlining that unclear division of responsibilities leads to ineffective coordination, also shows the importance of institutional culture.

Another finding that emerged from the literature reviewed for the study is that the division of responsibilities, and in particular the transfer of competence to subnational and local levels, can have negative impacts if there is not sufficient coordination of policy objectives and actions at the different levels of governance. The implementation of the Ambient Air Quality Directive has shown that the formulation of plans at the local level has been ineffective at reducing air pollution, as local authorities do not have the competence to address source pollution (e.g. agriculture, shipping, car emissions) and take the necessary measures to do so, e.g. through congestion charges, taxes for polluting vehicles, emission standards for vehicles etc. (Gollata and Newig, 2017; Carmichael and Lambert, 2011, Urban Agenda, 2017). Consequently, measures proposed in the air quality plan mostly relate to traffic management, including low emission zones, and the expansion of public transport, which are in most cases insufficient to reduce air pollution in the area (Gollata and Newig, 2017; Urban Agenda, 2017). The literature shows that municipalities are aware of the ineffectiveness of local plans alone to tackle air pollution. According to Gollata and Newig (2017), the city of Düsseldorf stated in its air quality plan that complying with the NO₂ limit value was impossible with the available options at local level and that solutions required the intervention of national and European institutions.

Similar examples can be found in the water area. Liefferink et al. (2011) showed that, municipalities in Denmark are responsible for implementing the RBMPs,

developed by the Ministry's Environmental Centres, through municipal action plans, but that it is unclear whether municipalities have sufficient powers to implement the ambitious objectives of those plans. In the Netherlands, the water boards do not have competences in sectors other than water and cannot address certain sources of pollution, such as agriculture. Measures for the agricultural sector have to be adopted at national level (Lieverink et al, 2011).

The implementation of environmental plans or programmes can therefore be blocked by inaction or uncoordinated action at higher levels of governance. A background paper on air quality, produced by the working group of the Urban Agenda on air quality, stresses that there are gaps in the regulation of emission sources in certain sectors (shipping, agriculture), which should be addressed to improve the effectiveness of measures taken at local level. The EIR country report for the Netherlands has also shown that measures to improve air quality in cities (such as areas with restricted access to polluting vehicles) were not supported by the government with official traffic signs. These examples demonstrate how reaching EU targets can require coordinated actions between all levels of governance and the involvement of regional and local levels in the transposition of EU requirement and national strategy/policy developments.

Finally, although many countries have established coordination fora to improve consistency of implementation across regions, coordination mechanisms are still missing in a number of areas. The Urban Agenda's working group on air quality mentioned, for example, that the majority of Member States are lacking a national coordination body to support the development of local air quality plans and ensure their quality and level of ambition is harmonised (Urban Agenda, 2017).

3.1.2 Horizontal coordination

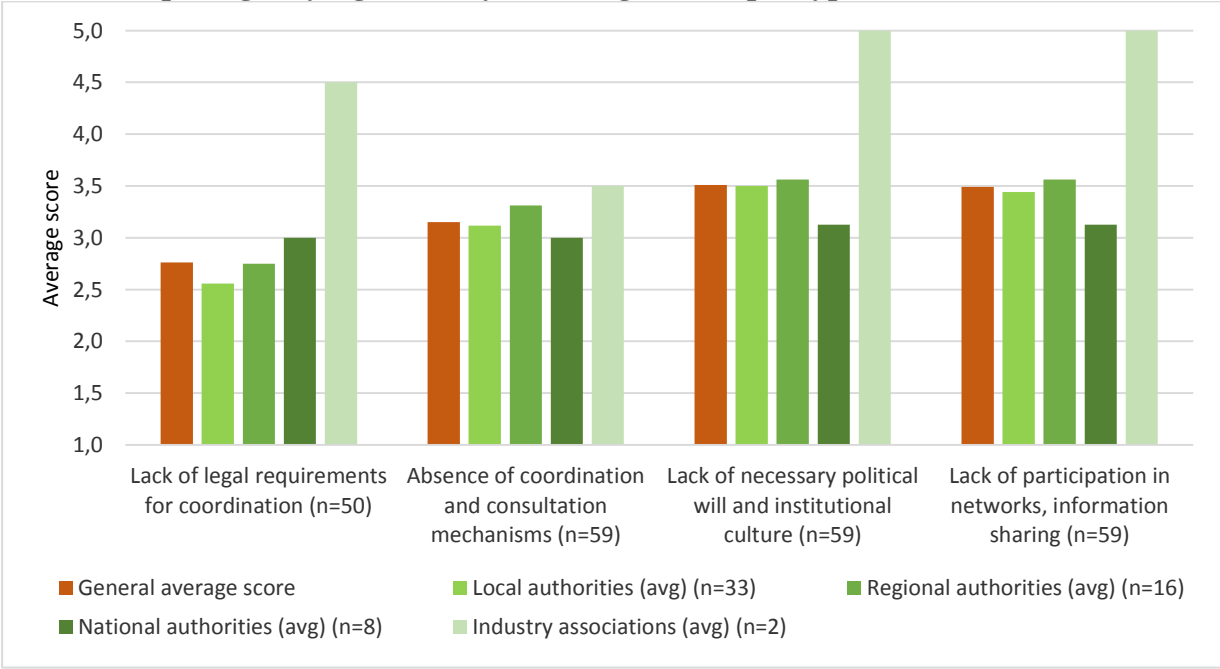
Planning requirements at an environmental-related scale (river basins or agglomerations) have made horizontal coordination between public authorities critical. Authorities in a river basin, or within zones and agglomerations must cooperate to produce effective and consistent river basin management plans or air quality plans (Newig and Koontz, 2014; Gollata and Newig, 2017). In addition, the implementation of EU legislation has led to costly investments in infrastructure and services (waste treatment and recycling, wastewater collection and treatment, implementation of measures included in PoMs, air quality monitoring etc.). Meeting these requirements efficiently often justifies the mutualisation of infrastructure and services to reduce costs.

- **Survey results**

As with the previous question, survey respondents considered that structural

aspects (e.g. legal requirements) were less important than cultural aspects and gave preference to the lack of political will and appropriate institutional culture and the lack of participation in networks as the main barriers to horizontal cooperation.

Figure 4: What are the most important factors impeding effective horizontal coordination across regional and across local authorities? (1 = not impeding; 5 = impeding very significantly) – average scores per types of stakeholders



Two respondents in follow-up questions indicated that horizontal cooperation mainly depends on the engagement of individuals in regional and local authorities and their personal networks. Consequently, horizontal cooperation can be negatively affected by a change in authorities’ staff.

• **Additional academic and grey literature**

Examples found in the literature tend to corroborate the idea that cooperation across administrative boundaries remains difficult, in part because of the lack of habit to do so. Gollata and Newig (2017) found that out of the 137 local air quality plans they reviewed, only 11% identified a zone or agglomeration that crossed municipal borders, and 30% included provisions for horizontal cooperation between municipalities, such as joint planning or joint implementation of measures. According to the Urban Agenda’s air quality working group, there is still a lack of cooperation within and between regions to reduce sources of emissions located outside the city or region (agriculture or cattle breeding).

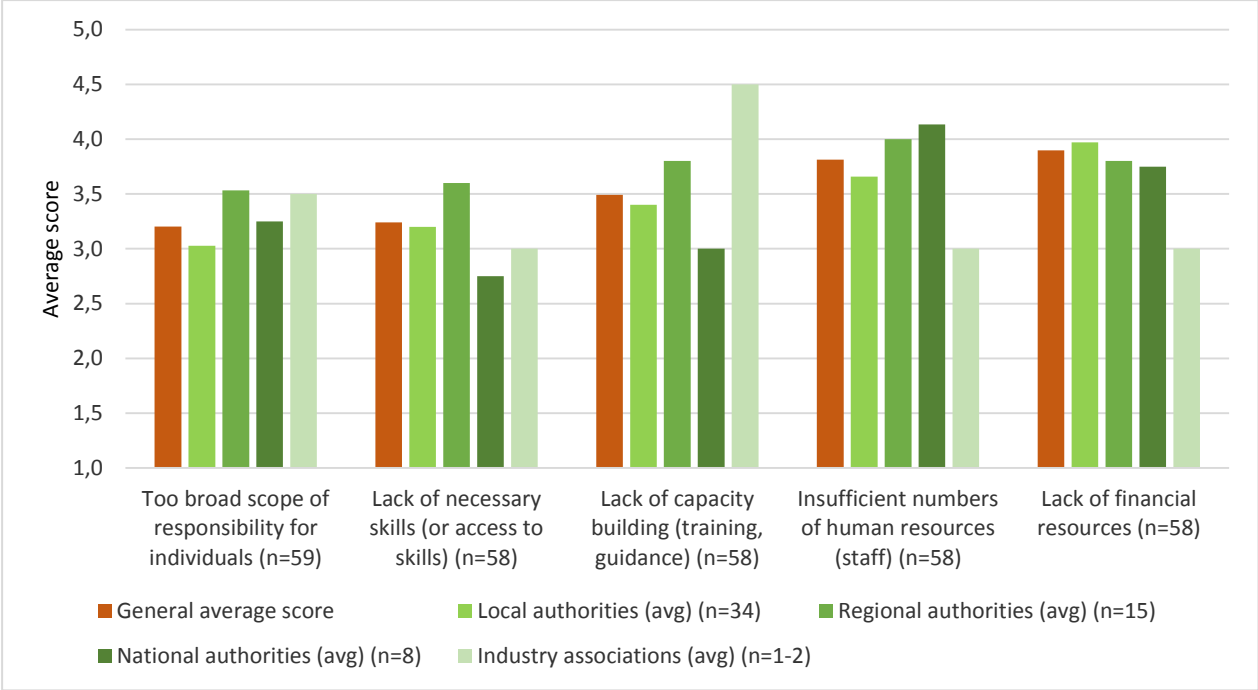
3.2 Administrative capacity of local and regional authorities

Administrative capacity relates to the resources (human and financial) available to local and regional authorities to fulfil their duties. Administrative capacity is a major determinant of other root causes (access to funding, capacity to carry out monitoring and reporting, effectiveness of enforcement). As mentioned in the previous section, the lack of coordination is also a determinant of poor administrative capacity.

- **Survey results**

Survey respondents flagged that the lack of resources – both financial and human – is the main factor limiting administrative capacity. Survey respondents often mentioned in open questions that the allocation of state budget was not proportionate to their tasks, either because competences were transferred to local and regional authorities without the appropriate transfer of resources, or because budget allocations have been reduced in recent years. Improper budget allocation has a negative impact on the recruitment of staff to carry out the authority’s responsibilities. The lack of skilled or specialised staff on specific environmental areas has also been mentioned by several respondents as a problem. A few respondents also considered that the size of the municipality was an important factor, as small municipalities face more financial and human resource problems.

Figure 5: What are the most important factors limiting the administrative capacity of regional and local authorities for effectively implementing EU environmental policy and legislation? (1 = not limiting; 5 = limiting very significantly) – average scores per types of stakeholders



- **EIR and OECD reports and other sources**

The EIR reports identified that administrative capacity, including at regional and local levels, was a problem in seven countries. OECD Environmental Performance Review mention for certain countries (Poland, the Netherlands) that increased competences, in particular requirements stemming from EU environmental legislation, have not been accompanied by sufficient financial resources. The impact of the economic crisis on the reduction of budgetary and human resources is also mentioned for Greece (EIR report) and Estonia (OECD EPR).

- **IMPEL survey**

Responses from German authorities to the IMPEL survey confirmed that human resources are a cause for concern for regional and local authorities. In the four policy areas surveyed (industry, noise and air quality regulation, waste and trans frontier waste shipment, protection of water and land legislation, and nature protection) between 60% and 83% of respondents considered that insufficient human resources caused problems in achieving the requirements of relevant EU legislation⁷. The lack of resources seems more problematic in the area of nature protection (according to 83% of respondents). The “inadequate range of professional qualifications for efficient implementation and enforcement” was also highly ranked as a problem by respondents, in particular in the area of water protection (72% of respondents indicated that it caused problems in achieving the requirements of EU legislation). In ‘open text’ fields, respondents regularly came back to the issue of human resources for all environmental areas and mentioned financial capacity problems in relation to the implementation of the Water Framework Directive. Several respondents to the survey also stated that the availability of the necessary qualifications to implement environmental legislation is a significant problem.

3.3 Use of European and other funding and of market based instruments for the implementation of EU environmental legislation at local and regional level

Local and regional authorities require financial resources for many capacities related to the implementation of environmental legislation. These range from ongoing costs, such as hiring and training staff, to providing public information and maintaining data collection and reporting capacity to large-scale investment costs (such as those related to the construction of environmental infrastructure

⁷ The survey question was: What are the main underlying reasons and causes of problems in achieving the requirements of relevant EU legislation? A series of issues were proposed to respondents who were asked to rank them (‘correct’ if the issue proposed was a problem, mainly correct, partly correct, rarely correct, incorrect). In this paragraph, ‘correct’ and ‘mainly correct’ were aggregated.

necessary to achieve compliance). In many cases, publicly funded budgets are not sufficient to meet these needs. One option for many authorities is to access EU and national funds dedicated to supporting the implementation of environmental legislation and ongoing compliance costs. Another is the collection of environmentally-related taxes, fees or fines which can be then targeted towards supporting environmental compliance.

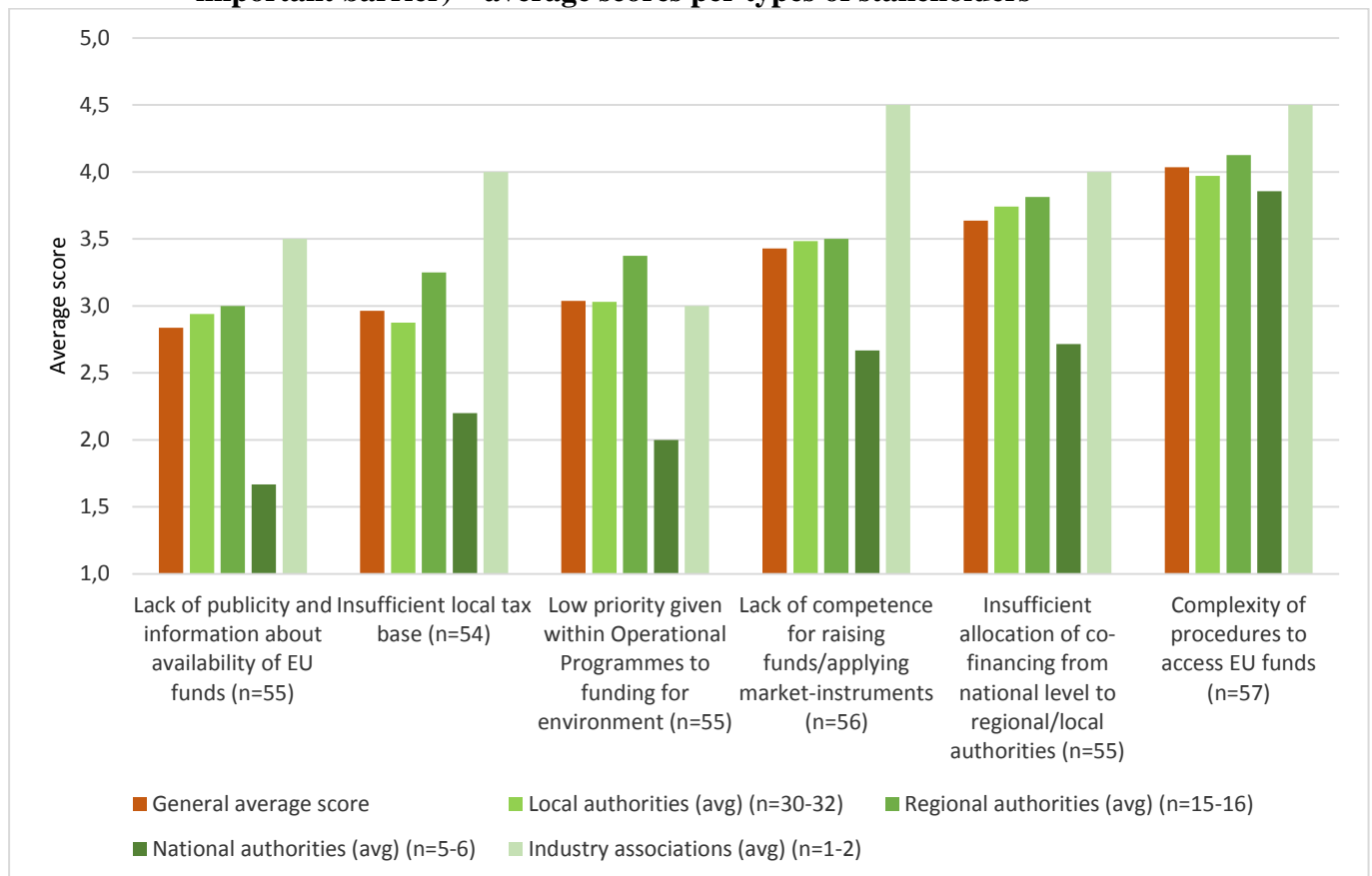
The survey focused mainly on the access to EU and national funds for environmental projects by local and regional authorities. For funding related to implementation of environmental legislation, local and regional authorities can access EU funds in three main ways:

- For so-called ‘**major projects**’, large capital investments in infrastructure (e.g. sewage and waste water treatment; municipal solid waste management; sustainable energy, etc.)
- For **smaller projects**, such as those supporting nature and biodiversity, greening public spaces or land rehabilitation; small scale energy projects, etc.
- Through **technical assistance or training initiatives**, to directly build skills and administrative capacity for implementing environmental legislation

- **Survey results**

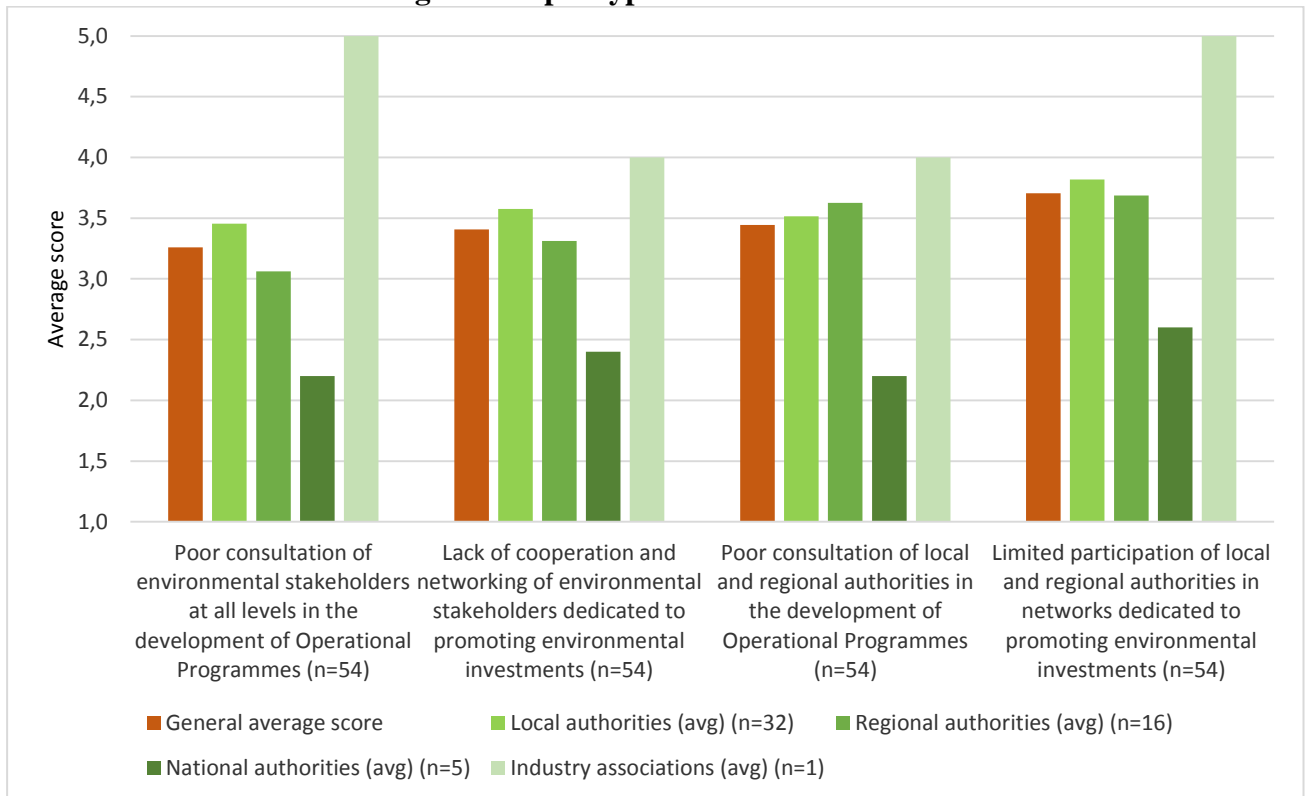
As shown in Figure 6, survey respondents considered the complexity of procedures to be the most important barrier to better use of EU and national funding; this was followed by the insufficient allocation of co-financing from the national level. Less emphasis was placed on issues related to the programming of funds and the prioritisation of the environment within those programmes. Essentially, many respondents seem to be of the opinion that funding for the environment is available, and they are aware of this, but are prevented from fully accessing it due to structural problems with putting together acceptable project proposals and accessing the required co-financing.

Figure 6: What are some of the main barriers to better use of EU and national funding and of market-based instruments at regional and local level? (1 = not a barrier; 5 = very important barrier) – average scores per types of stakeholders



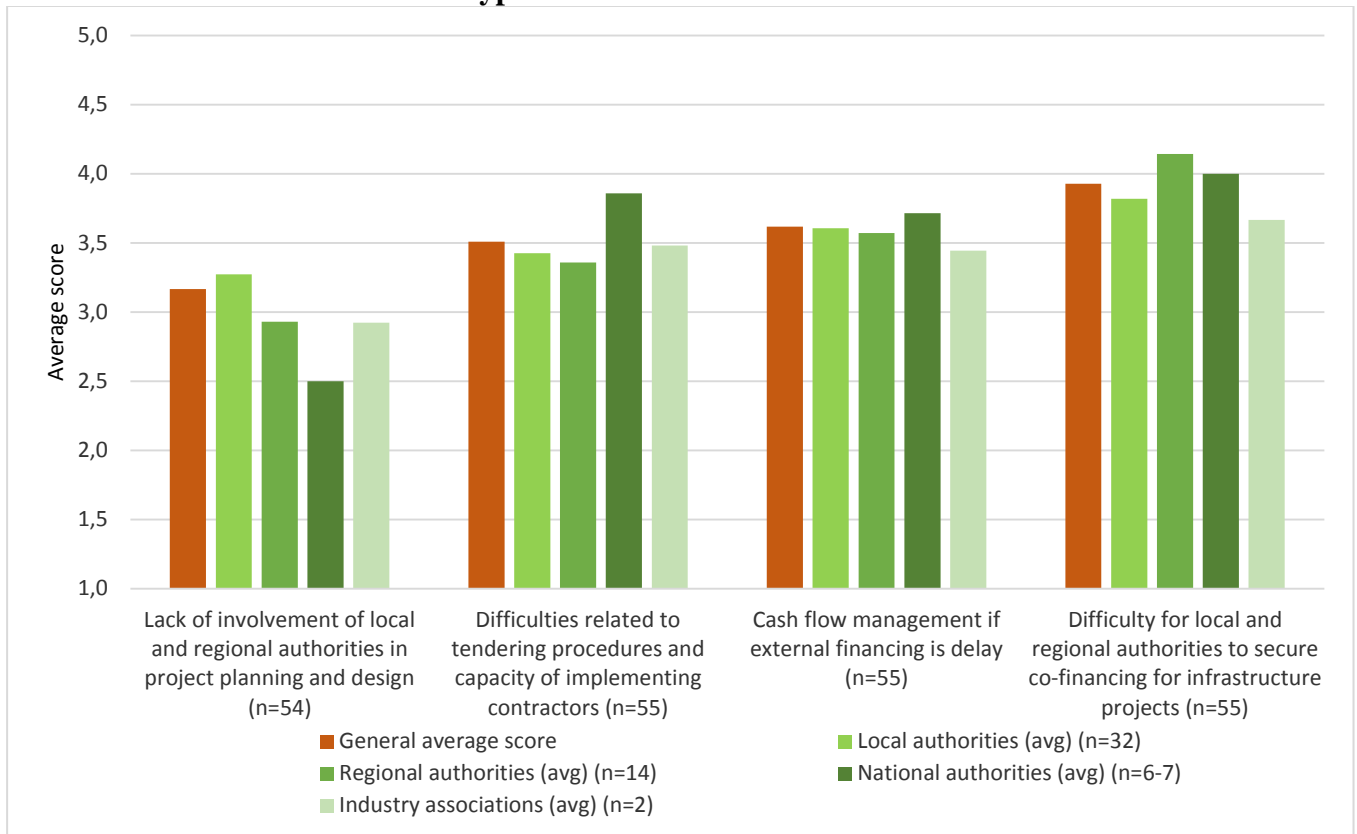
Given that survey respondents were less concerned about the prioritisation of environmental objectives and funding needs in the Operational Programmes (OPs) under the European Structural and Investment Funds (ESIF), it is not surprising that they gave lower importance to consultation and cooperation with environmental stakeholders in the planning and implementation of EU funds. Here, the most important challenge was the participation of local and regional authorities in networks dedicated to promoting environmental investments; issues related to participation and consultation in programming funds came close behind.

Figure 7: How important are the following challenges to effective participation in the planning and implementation of EU funds? (1 = not important; 5 = very important) – average scores per types of stakeholders



The final question looked at absorption capacity, with a focus mainly on larger infrastructure projects. Again, the issue of securing co-financing was given the most weight by survey respondents. Two other issues, related to practical challenges such as cash-flow management and procurement procedures, also received relatively high priority. Slightly less priority was given to the lack of involvement in project planning and design.

Figure 8: Often EU funding is available and planned for investing in the environmental infrastructure (e.g. wastewater treatment, solid waste management) that is required for local and regional authorities to implement and ensure compliance with environmental legislation, but the funding is not ‘absorbed’ or spent in a timely manner. What are the main reasons for this? (1 = no influence; 5 = very high influence) – average scores per types of stakeholders



Based on the results of the three survey questions concerning the ability of local and regional authorities to successfully access EU funds to support their implementation of environmental legislation, it seems that prioritisation of the environment within programming and project planning is less of a problem than the actual accessing of funding during the programme implementation stage for individual projects.

- **EIR reports and additional literature**

EIR reports and other documents support the finding that local and regional authorities could be better equipped to take advantage of available EU funds, particularly in areas that are not suited to large-scale infrastructure projects, such as nature protection and biodiversity support, or public awareness of environmental issues. The Italian EIR notes that Cohesion Policy places an emphasis on financing larger, infrastructural projects, even though smaller, municipal-level projects are also needed to implement EU environmental legislation. However, the Italian report points out that there is also a lack of administrative capacity in small municipalities in particular, which leads to

difficulties to access EU funds for smaller environmental projects.

Linked to this, the Spanish EIR refers to the low uptake of ERDF financing for nature conservation measures and Natura 2000 priorities, due in part to insufficient coordination across different levels of authorities. Unsatisfactory uptake of EU funds for financing nature conservation and biodiversity issues, in light of wider EU failures to meet biodiversity targets, and challenges in many Member States to make significant progress on the Natura 2000 network, is well recognised as an important problem for the implementation of EU environmental legislation.

Several reports and studies have found that the relatively low levels of EU funding are linked to problems with administrative capacity on the part of the local-level beneficiaries (often local governments, public institutions and NGOs) that need to identify, prepare, implement and co-finance projects according to the rules, timing and other funding requirements. This was noted in a 2014 EU Court of Auditors report on ERDF funding and the EU biodiversity strategy (ECA, 2014), and in a study for the European Commission assessing the Natura 2000 EU co-financing arrangements (Kettunen et al., 2011). This was also cited as an implementation barrier by the recent Fitness Check of the EU nature legislation (Milieu, IEEP, and ICF, 2016).

The fact that local-level beneficiaries – especially smaller ones – often have trouble accessing EU funds is in line with the higher prioritisation given by survey respondents to the complexity of procedures as a barrier. While local and regional authorities or other public institutions often serve as direct beneficiaries of large infrastructure projects (e.g. a regional waste management project involving waste collection, disposal and treatment facilities), these projects are usually identified, developed and implemented with considerable input from national authorities, who also frequently take responsibility for securing the co-financing. While these larger projects are very important mechanisms for implementing EU environmental legislation, especially with regard to major targets such as those for waste management, waste water treatment and drinking water supply, the smaller projects are also important and their implementation directly supports the capacity of local and regional authorities to fulfil their environmental responsibilities.

The need for EU funds to be better tailored to the requirements and capacities of local authorities is emphasised in a recent position paper published by the Council of European Municipalities and Regions (CEMR, 2017). The paper also recognises that local authorities – especially smaller ones – frequently lack capacity to obtain EU grants autonomously. It notes that Technical Assistance funds under Cohesion Policy tend to remain in the control of national bodies,

and are not always available to beneficiaries or other actors involved in implementing the funds. It also points out that under the thematic concentration rules for the 2014 – 2020 period, several Member States did not choose the institutional capacity thematic objective, which reduces the options for using EU funds for building administrative capacity in local and regional authorities.

The CEMR paper also refers to complications with co-financing, another issue flagged by the survey for this study. In some cases, co-financing is automatically provided for local projects by the national or regional government, and while this is in some ways useful, in others it detracts from the autonomy of local authorities to develop bottom-up projects that best suit their needs. Issues related to accounting of state debt can sometimes act as a disincentive for national governments to co-finance local government projects.

The CEMR calls for a consolidated capacity-building instrument for all ESI funds to be made available to all authorities who manage or implement the funds, rather than through national Operational Programmes.

3.4 Policy integration and coherence

Environmental policy integration ‘involves a continual process to ensure environmental issues are taken into account in all policy-making’ (EEA, 2005). Most environmental policies are connected to other sectoral policy areas, such as transport, agriculture or energy, but environmental issues are often not given sufficient weight in the definition of sectoral policy objectives and processes. Environmental policy integration is relevant at all levels of governance as regional and local authorities must address trade-offs between environmental and economic objectives through policy development, land use planning and permitting and licensing of infrastructure or economic activities.

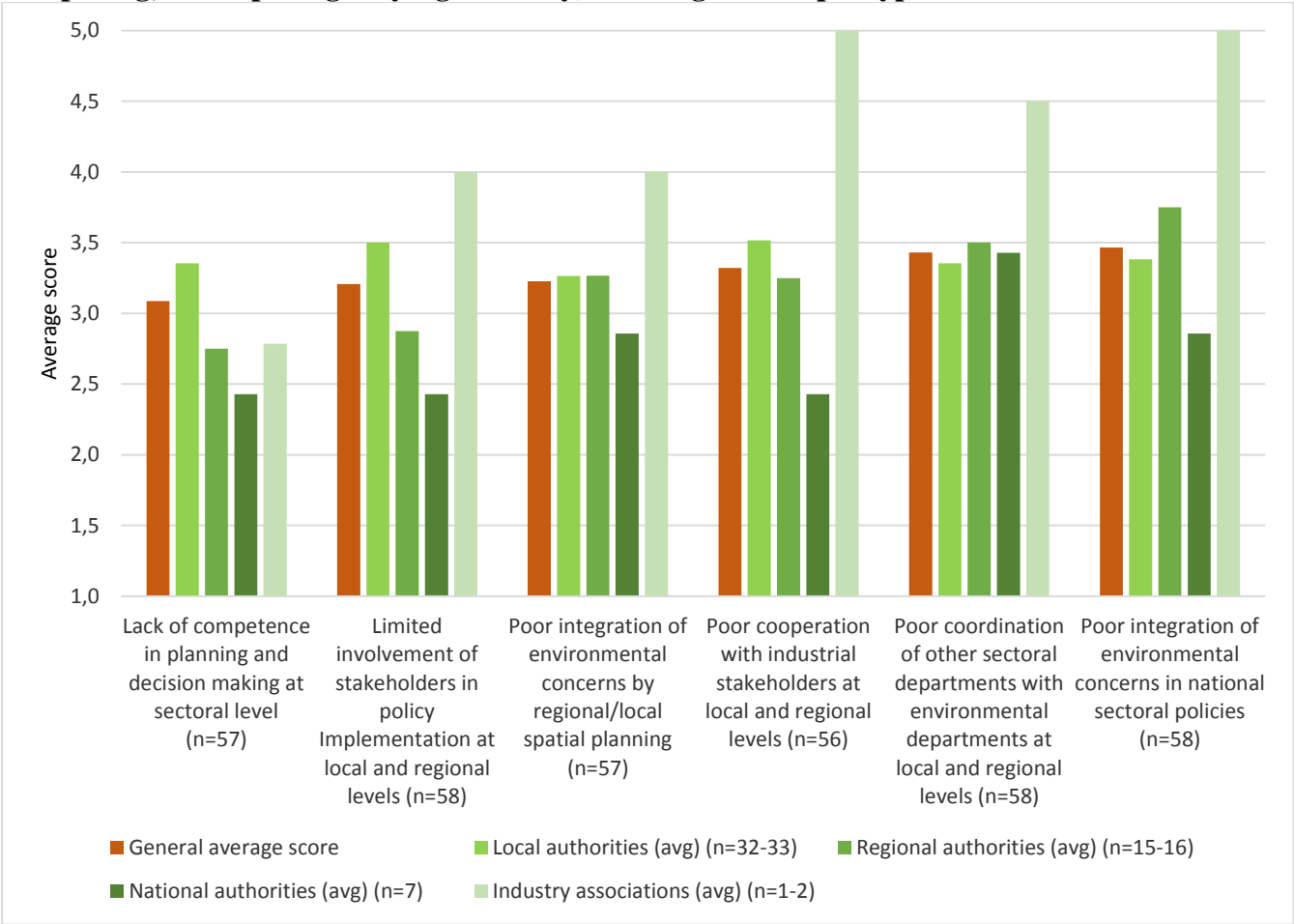
- **Survey results**

Survey respondents attributed a relatively high score to all underlying factors proposed in the survey. Poor integration of environmental concerns in sectoral policies and poor coordination of sectoral departments with environmental policy developers scored the highest. The lack of cooperation with industrial stakeholders comes in third position.

According to survey respondents, problems are mostly encountered in the integration of nature protection issues with agriculture / land use demands, air quality with climate change policies (e.g. wood burning); environmental issues with energy and transport strategies; and policies related to the circular economy. In the open questions, respondents reported the following problems: difficulties in reconciling different interests in regional and local authorities; the

administrative culture of working in isolation from other departments and distrust between departments; the weak standing of environmental issues in project development; Strategic Environmental Assessments (SEAs) failing their policy integration objectives because they are carried out in a very formal way; difficulties to change old land use planning decisions that have a great impact on the environment because of the sensitivity of the issue; and insufficient involvement of industrial stakeholders in environmental policy development.

Figure 9: What are the most important factors impeding the integration of environmental concerns into other policy areas at regional and local levels? (1 = not impeding; 5 = impeding very significantly) – average scores per types of stakeholders



• **EIR and OECD reports**

Only a few EIR reports touched upon problems related to policy integration. The EIR report on Slovenia reported that the lack of integration between nature protection issues and other policy areas is mainly due to the lack of awareness of some stakeholder groups and sectors about the requirements and the benefits of EU nature legislation and the lack of willingness of authorities to support effective integration.

The OECD Environmental Performance Reviews for Sweden and Poland also

brought up issues regarding the integration of environmental issues in spatial planning, showing that there is room for improvement in the use of land use planning and SEA as tools for advancing policy integration. In Sweden, around half of municipal comprehensive plans (land and coastal zones planning document) integrate all national Environmental Quality Objectives (EQOs). In addition, the report mentioned that the quality of SEA of development plans – implementing the comprehensive plans – varies across local authorities. The main reason given by the Environmental Performance Review is that local interests weigh more than environmental issues in local planning decisions. The report on Poland showed that the slow progress in establishing land use planning at local level and the non-binding nature of the required studies of conditions and directions for local land use management prevented the integration of environmental issues in planning and the application of SEAs to local land use plans.

- **IMPEL survey**

Responses to the IMPEL survey in Germany confirmed that the lack of policy integration was a barrier to the effective application and enforcement of EU environmental law (61% of respondents considered that the lack of ‘integration and prioritisation of environmental issues’ was a barrier)⁸. In open text fields, respondents commented on several occasions on the lack of integration of environment (water, nature) and agriculture policies.

- **Additional academic and grey literature**

The literature reviewed for this study also reported problems related to policy integration. It confirmed that the poor integration of environmental policy concerns in sectoral policies is a major underlying factor. Soderberg (2016) showed that water issues often conflict with other policy areas in Sweden. A survey conducted for this research among national and subnational civil servants responsible for water management concluded that, according to civil servants, regional development programmes such as Rural Development Programmes for CAP funding are not adapted to implement the type of measures required in the RBMPs.

The literature also confirmed that conflicting interests can be resolved to the detriment of environmental concerns. In a case study of the air quality plan in Southampton, Carmichael and Lambert (2011) showed that the plan did not address emissions from the port, likely because the port authority is a major

⁸ The survey question was Which specific problems or difficulties create particular barriers to effective application and enforcement of EU environmental law in your area of competence - across the whole compliance chain? A series of issues were proposed to respondents who were asked to rank them (‘correct’ if the issue proposed was a problem, mainly correct, partly correct, rarely correct, incorrect). In this paragraph, ‘correct’ and ‘mainly correct’ were aggregated.

employer in the city. Dealing with these arbitrations can be a challenge for regional or local administrations and some of the papers reviewed argued that civil servants were not always sufficiently prepared to deal with conflicts between different interests. The survey of Swedish water civil servants conducted by Soderberg (2016) showed that only a minor proportion of civil servants who responded considered that they have enough guidance to make these arbitrations. Decisions are then made on a case-by-case basis, which increases the chances of water issues being overridden by economic interests.

The poor level of communication and sharing of knowledge between policy departments has also been flagged as an issue. Simeonova and van der Valk (2016) concluded of their analysis of the planning process of an urban development project in Burgas (Bulgaria) that an administrative culture prone to conflict prevented the communication between involved planners, environmental professionals and stakeholders, and therefore impeded the integration of environmental concerns into the planning process. The article also pointed out that the limited expertise of planners to integrate environmental issues in the planning process reduced their willingness to interact with other departments. The article underlined the necessity of improving horizontal coordination mechanisms within public authorities and administrative capacity to facilitate environmental policy integration.

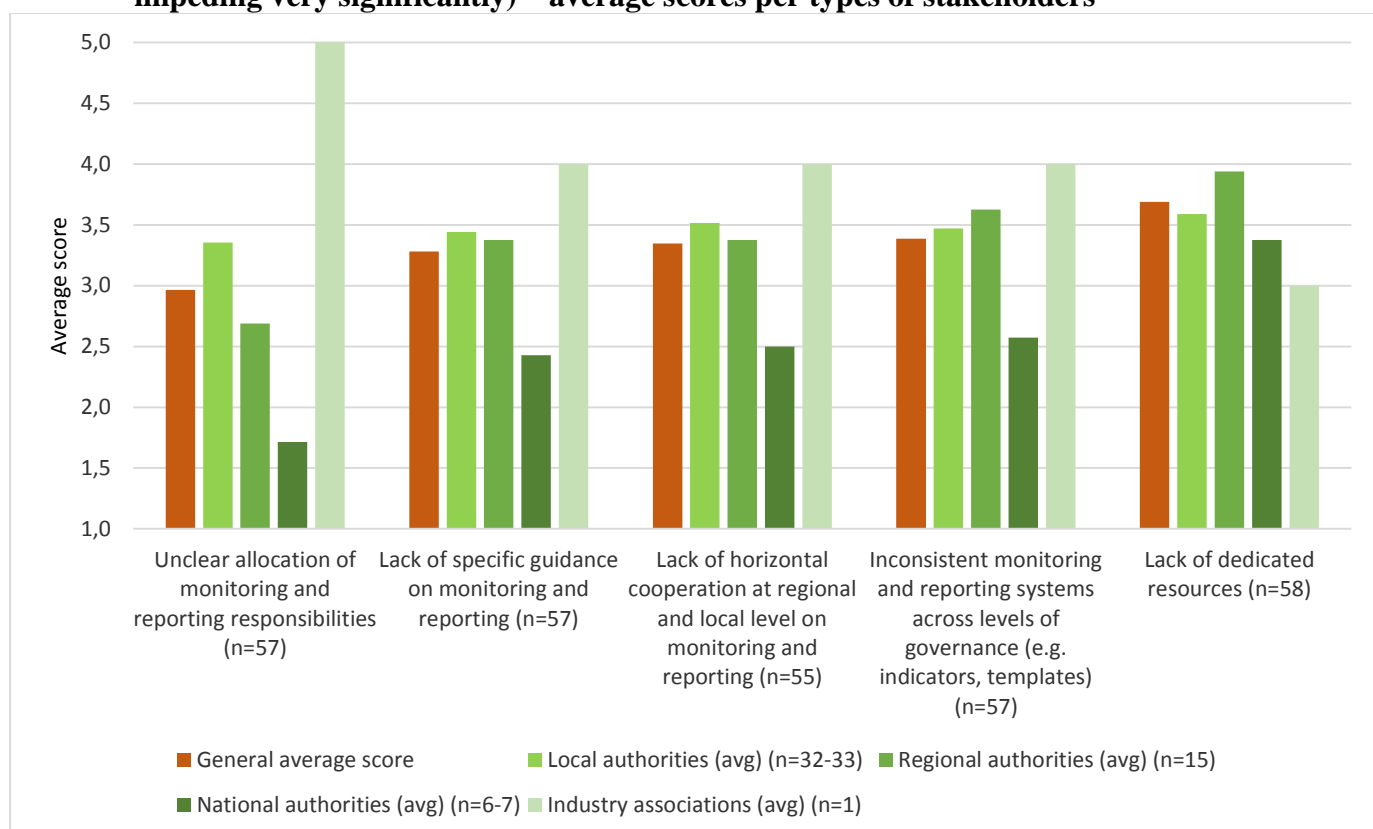
3.5 Knowledge and data

EU environmental legislation sets out requirements for the monitoring and reporting of environmental data, mainly for compliance purposes. These include, among others, the monitoring of surface and groundwater bodies' status, the concentration of air pollutants in air quality zones, the performance of wastewater treatment plants and receiving waters, the achievement of the various targets for waste collection, the conservation status of protected habitats and species or the exposure to environmental noise. In addition, the Directive on public access to environmental information (Directive 2003/4/EC) requires public authorities to proactively make available all environmental data they possess, including plans, programmes, monitoring data, permits and licenses granted, while the Directive on the re-use of public sector information (Directive 2003/98/EC) encourages Member States and their subnational public authorities to make these data accessible for re-use. The INSPIRE Directive (Directive 2007/2/EC) aims to improve the public access of spatial data and information sharing between public authorities at all levels of governance. The role of regional and local authorities in the monitoring and reporting of environmental data varies significantly from one country to another depending on the national governance structure, and across policy areas.

- **Survey results**

According to survey respondents, the lack of dedicated resources for monitoring and reporting is the main barrier. The lack of vertical and horizontal coordination in monitoring, and the lack of guidance for regional and local authorities have also obtained a relatively high average score.

Figure 10: What are the most important factors impeding the effective monitoring and reporting of environmental data at regional and local levels? (1 = not impeding; 5 = impeding very significantly) – average scores per types of stakeholders



- **EIR, OECD reports and other grey literature**

Some of the EIR reports mentioned that the devolution of monitoring and reporting responsibilities to the local level was an issue in certain cases as local authorities do not have sufficient capacity to fulfil them. In particular, the EIR report for Italy mentioned that the creation, management and publication of spatial information was often assigned to small municipalities, which could not produce dataset compliant with the INSPIRE Directive, because they lack the technological infrastructure and expert staff. Similar remarks were made concerning the monitoring under the Urban Waste Water Treatment Directive, where quality varies greatly across regions. The OECD Environmental Performance Review for Poland indicated that data on waste management collected by municipalities under the supervision of the ministry of environment are weak. The Environmental Performance Review for Spain also reported significant discrepancies and inconsistencies between regions regarding the

collection of environmental data, which makes national level assessment difficult.

The reports also mentioned that in addition to technical capacity, the lack of financial resources also impedes the collection of environmental data. The OECD Environmental Performance Review for Spain indicated that budgetary constraints were an issue. The REFIT evaluation of the INSPIRE Directive showed that resource allocation for implementation varied between regions. The consultation during this evaluation revealed that according to Member States, the economic crisis had negative impacts on investments made in view of implementing the Directive (European Commission, 2016a). On a similar note, the input submitted by the German Federal Ministry of the Environment as part of the support study to the fitness check on monitoring and reporting obligations arising from EU environmental legislation, stated that officials in regional and local administrations often see environmental reporting as burdensome because of resource problems (ICF and IEEP, 2017).

Finally, problems with data sharing policies were identified, limiting access to data to regional and local authorities. The REFIT evaluation of the INSPIRE Directive indicated that all Member States have introduced coordination structures, including with regional or local authorities in federal and regionalised Member States, to implement the Directive, but that their effectiveness varies across Member States. In addition, the evaluation noted that spatial data sharing policies were heterogeneous across Member States, and sometimes missing, or only applicable to limited sets of INSPIRE data, which leads to the persistence of different arrangements for sharing data between national, regional and local authorities, between regions or within regions, depending on the type of data (European Commission, 2016a). Similarly, EIR reports also mentioned that several Member States do not have common data-sharing policies for all administrative levels, leading to the use of different licences regulating access to data, bilateral agreements for sharing data or the application of fees. The reports, however, specified that the legal framework in several Member States was evolving towards more simplified and free access of spatial data.

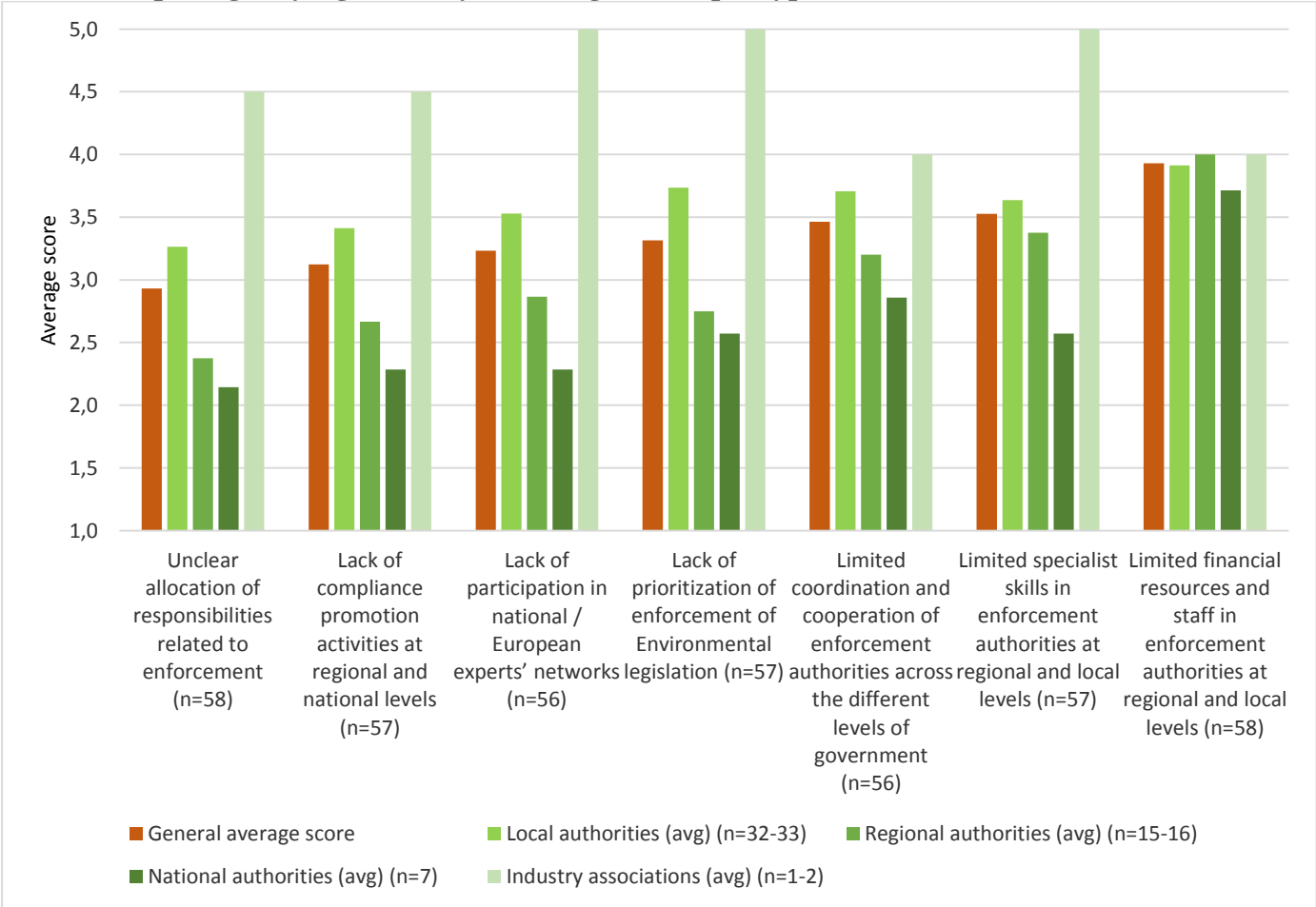
3.6 Compliance assurance mechanisms

The distribution of enforcement responsibilities is, in several countries, shared between national and subnational levels of governance. Regional and local authorities often have significant responsibilities in issuing licences, controlling the activities of licensing bodies and monitoring signs of non-compliance (e.g. pollution) and can implement compliance promotion activities towards stakeholders directly affected by environmental legislation.

- **Survey results**

According to survey respondents, the lack of financial and human resources is the main factor impeding effective enforcement at regional and local level. Limited specialist skills and the lack of coordination between enforcement authorities at different levels of governance also scored relatively highly.

Figure 11: What are the most important factors impeding the effective enforcement of EU environmental legislation at regional and local levels? (1 = not impeding; 5 = impeding very significantly) – average scores per types of stakeholders



Very few respondents commented on their replies. Those who did point out the fact that staff reductions have harmed the quality of enforcement, especially as the body of legislation to enforce is growing, or on the difficulty for local authorities to gather specialist skills. Two respondents mentioned the ineffectiveness of applied sanctions. A few respondents, however, mentioned that the participation in the activities of the IMPEL network was effective as regards exchanging information, best practices and building capacity.

Follow-up interviews with some survey respondents – in the preparation of the case studies – enabled the better understanding of some of these challenges. In particular, one interviewee explained that the administrations dealing with enforcement often lack knowledge of civil or criminal procedure (e.g. building a

case, gathering evidence that can stand in court), which slows down the prosecution of environmental crime. Another interviewee mentioned that the distrust between the administration responsible for enforcement and the police impeded proper coordination and effectiveness of enforcement actions.

- **EIR and OECD reports**

Several EIR reports and OECD have shown that the lack of a consistent national approach to compliance assurance and inspection in Member States that have a decentralised system has led to fragmentation and important regional variations in the way enforcement is conducted. These differences often reflect resource constraints in some regions. Although many Member States have implemented coordination networks, quality assurance systems or information portal to reduce discrepancies, some of the reports still mention coordination as a challenge as the quality and scope of enforcement vary across regions or municipalities.

Although there are still consistency issues across the country, the OECD Environmental Performance Review for Italy indicated that decentralisation has strengthened the enforcement system in the country as regional and local authorities are better able to monitor compliance in their jurisdiction than central authorities.

- **IMPEL survey**

German respondents to the IMPEL survey confirmed that the lack of resources impedes enforcement of EU environmental legislation. This is, in particular, the case for waste management, where staff is lacking for routine inspections, which cannot be carried out according to inspection plans. Respondents mentioned that the lower enforcement authorities, at municipal level, responsible for inspecting smaller facilities, experience even more issues with finding sufficient and qualified staff.

According to respondents, coordination of inspections between different environmental areas is also insufficient. International cooperation between inspection authorities and public prosecutors has also been mentioned as a problem, in particular regarding waste shipment.

4 Recommendations and examples of good practices

This section builds on the issues identified in the survey and the literature review to provide recommendations on multilevel governance approaches, actions and instruments supporting effective environmental multilevel governance and/or effective local and regional implementation of environmental legislation. Recommendations are illustrated by 15 short case studies identified through the survey and literature review.

4.1 Develop further mechanisms for ensuring complementary and consistent implementation of policies across levels of governance

Environmental problems generally call for complex policy responses, involving all levels of governance, according to their different competences. As explained in Part 3, unclear allocation of responsibilities, the lack of coordination mechanisms and cooperation culture across levels of governance can create inefficiencies in the implementation of environmental legislation. These problems are often not anticipated at the policy development stage and realised and/or addressed only once policies are under implementation.

Member States should therefore ensure that environmental priorities are consistent across levels of governance, that requirements for implementing environmental legislation match the competences and capacities of each competent authority, and are sufficiently clear and specific to provide a clear mandate and legal certainty to subnational levels implementing them.

Case 1 illustrates one way of improving clarity and certainty for regional and local authorities regarding their environmental obligations.

1. Danish Environmental Objectives Act (Miljømålsloven)

Denmark

Root causes addressed: Vertical coordination, policy integration

The Danish Environmental Objectives Act (Miljømålsloven) facilitates the implementation of the Water Framework Directive and Birds and Habitats Directives across different levels of governance. The required river basin management plans (RBMPs) and the management plans for Natura 2000 sites are drawn up at national level. The municipalities are then responsible for implementing these plans through Municipal Action Plans (kommunale handleplaner), which must comply with the relevant water and nature plans. As

municipal borders rarely coincide with river basin borders, municipalities usually have to deal with more than one water plan and/or work together.

The Miljømålsloven is an example of how policy integration at national level can be transferred to the local level. It provides legal clarity to local authorities on their environmental obligations, due to the need to draw up Municipal Action plans, thereby helping them to implement environmental legislation.

Sources: Liefferink et al., 2011; Danish Environmental Act

Many implementation problems regarding regional and local authorities occur because they were not identified at the stage of design and adoption of environmental policy and legislation. All stakeholders, especially those authorities that will be given competence and responsibility for implementation should be involved as early as possible in the design of legislation and policy to ensure that responsibilities are appropriately and clearly allocated and to better identify any potential practical problems in advance. Case 2 is an example of the involvement of regional and local authorities in the national transposition of EU requirements.

2. Intergovernmental dossier teams

Netherlands

Root causes addressed: Vertical coordination

On the initiative of the Ministry of Infrastructure and the Environment, Intergovernmental Dossier Teams were set up to involve different levels of government and different ministries in the assessment and formulation of positions during the negotiating phases of EU directives. In particular, these teams address the lack of attention that was being paid to practical implementation issues - notably concerning the European air quality directives - by involving regional and local governments and other ministries in the formulation of the Netherlands position at EU Council level.

There are currently eight formal intergovernmental dossier teams, dedicated to different European proposals. The overall functioning and progress of the dossier teams is monitored through umbrella meetings two or three times a year, attended by a representative from every governmental level. During these meetings decisions are made about which teams are needed on which issues.

The dossier teams have helped to improve the practical functioning of EU directives by involving all relevant levels of government at an early stage of the policy cycle, helping to avoid implementation issues in the design of policies. A particular success has been the improved implementation of the Ambient Air Quality Directive. The teams also improve overall cooperation and policy

integration across ministries, such as working with the Ministry of Internal Affairs on the Energy Package.

Sources: Information provided by the Association of Netherlands Municipalities (VNG); COSLA (2014)

4.2 Develop mechanisms for cooperation across local authorities on concrete actions supporting implementation

As mentioned in Part 3, the successful implementation of EU environmental legislation often requires horizontal cooperation between authorities and stakeholders at local level, to implement plans or programmes requiring the involvement of several regional and local authorities or to share compliance costs. The survey showed that horizontal cooperation is not sufficiently embedded in administrative culture and that participation to networks is lacking. To address this, regional or local authorities should establish more concrete mechanisms to foster cooperation, exchange of practices, and facilitate economies of scale, such as joint managing bodies, formal cooperation structures, regional networks, etc. These cooperation mechanisms also have the benefits of reducing compliance costs and maximising the use of available specialist skills. Where there are no formal requirements for horizontal cooperation, for instance in the preparation of air quality plans, these cooperation mechanisms can improve the complementarity and synergy between local measures.

Case 3 illustrates the benefits of horizontal cooperation between neighbouring municipalities. The network enables the municipalities of the province of Barcelona to share and discuss their needs and obtain a tailored response, from another member or the province. Through horizontal cooperation, the network also improves administrative capacity and increases compliance assurance.

3. Network of Towns and Cities towards Sustainability

Province of Barcelona, Spain

Root causes addressed: Horizontal coordination, administrative capacity, compliance assurance

The Network of Towns and Cities towards Sustainability was created in 1997 by the Barcelona Provincial Council to enhance cooperation on sustainability issues between local authorities, and between local and regional authorities. It currently comprises around 246 local organisations, 15 supra-local organisations and 18 observers (municipalities or regional governments from other regions) (Xarxa, 2017). The Network responded to a lack of experience

and coordination amongst municipalities to implement environmental laws (Diputació de Barcelona, n.d.).

A key way in which the Network achieves its objectives is through working groups, for 2016-2020 on: Catalonia Covenant of Mayors, sustainable local energy, air quality, water, waste, circular/green economy and environmental education. Their activities cover: sharing of best practices, training and mentoring, monitoring, concrete measures e.g. to encourage cycling, and awareness-raising. There is an active online forum for the Network, and all documents are publicly shared on their website.

A successful example of cooperation amongst municipalities and regions, the Network has grown from an original 118 members to around 280 today. It allows municipalities to exchange knowledge and pool resources. The Network has also been very successful at helping smaller municipalities with limited resources; offering more experienced municipalities to provide ‘mentoring’ to less experienced ones on how to start activities on a specific topic (Xarxa, 2017). A particular success has been the Working Group on the Covenant of Mayors, which, along with other support from the Barcelona Provincial Council, has meant that most municipalities have now drawn up local-level Sustainable Energy Action Plans.

Sources: Interview and documents provided by the Barcelona Provincial Council; Barcelona Provincial Council webpage

Case 4 concerns the implementation of the Water Framework Directive and illustrates the benefits of participatory management of natural resources between public authorities and private users at local level.

4. River contracts

Wallonia, Belgium

Root causes addressed: Horizontal coordination

River contracts in Wallonia are commitments made to manage and protect water courses, and to reconcile their different functions and uses, originating in the early 1990s. They are made up of both public managers and private users, including local government, citizens, schools and administrations. The contracts cover commitments related to the river itself, its surroundings and the river-basin’s water resources, such as flood management, agriculture and river transport. Each signatory undertakes to meet the goals set in the contract according to their competences.

The river contracts must be approved by the Minister for Wallonia and are overseen by a river committee, an administrative council, a project coordinator

and working groups. The implementation of the commitments under the contract is reviewed every three years, overseen by a ‘coordination unit’, partially subsidised by the regional government (Wallonia). They are financed jointly by the Walloon government (around 70%), the communes and the provinces.

The river contracts provide a forum for local action by those implicated in either the management or use of the river, catalysing the implementation of the river basin management plans at local level by promoting cooperation, mutual understanding and introducing a ‘moral commitment’ amongst local partners. The river contracts now cover 92% of Walloon territory, 232 communes and 1600 partners.

Sources: Smoos (2011); River Contracts webpages

Case 5 illustrates the benefits of horizontal cooperation in the area of infrastructure for solid waste management. EU requirements for solid waste management place considerable emphasis on recycling, which requires large infrastructural operations to be managed cost-effectively. While waste management is often a local-level responsibility, horizontal cooperation at regional level helps to carry this out effectively, and in compliance with targets for recycling. It can also generate revenues that can be used for other environmental protection activities.

5. Regional Waste Management Centre

Ljubljana, Slovenia

Root causes addressed: Horizontal coordination

The Regional Waste Management Center (RCERO) Ljubljana is an excellent example of municipal cooperation in the investment and management of a state-of-the-art facility for the treatment, recovery and disposal of municipal solid waste in line with EU requirements. The facility, which started full operation in 2016, has been gradually developed over nine years.

It is the largest environmental project funded by EU Cohesion Policy in the country. The project responded to a need to increase the re-use and recycling of waste and reduce the amount of waste being landfilled, to meet EU requirements. It is run by the public company Snaga Ljubljana and currently involves 50 municipalities (from an original 17), and manages one-third of the country’s total generated solid waste. It consists of facilities for the recovery of waste, a treatment plant for leachate and an expanded landfill.

The project is coordinated by the RCERO Ljubljana Council, a joint body of the participating municipalities, who also create municipal councils, and ensure that

decisions regarding the provision of waste management utilities are coordinated between these different bodies. The total capital investment in this project was EUR 155 million; around 60% of that was provided by a Cohesion Policy grant in 2009. In 2009, the European Commission granted EUR 77.5 million, while the remainder of the total project value of EUR 155 million (VAT) was provided from local authority budgets (around 23%), the central government budget (13%) and just over 3% comes from environmental waste disposal charges.

RCERO is both a good example of municipalities cooperating to access EU funding, and of pooling their own resources to achieve significant economies of scale. RCERO aims to extract the greatest possible amount of usable material from the waste it receives, in order to reduce the quantity of disposed waste. Its facilities for mechanical-biological waste treatment enable as much as 95% of mixed waste to be used as recyclable materials or fuel; biowaste is converted into biogas and compost. In addition to improving compliance with waste management targets, RCERO works towards the overall transition to a circular economy.

Sources: Information provided by Snaga Ljubljana; RCERO Ljubljana website; Snaga Ljubljana website.

4.3 Enable better access of local and regional authorities to EU funding for the implementation of environmental legislation

EU and national funding for the environment presents significant opportunities for local and regional authorities, ranging from access to capital for investments in environmental infrastructure to smaller projects addressing local landscapes or nature protection, to technical capacity within authorities. The survey and literature also found that local and regional authorities can experience difficulties in accessing EU and national funds, mainly due to complexity of procedures, capacity to develop and manage projects, and to provide the necessary co-financing.

To address this, Member States need to devote more attention to ensuring that programmes and procedures are accessible to local-level actors who may not be accustomed to a project-based approach to applying for and utilising funding. Technical assistance funds can be made available for this.

One way to address these issues is through dedicated networks of environmental and managing authorities. These networks can support a range of different actors involved in various stages of the process, including programming, the identification and preparation of projects, as well as monitoring and evaluation. Networks aim at both ensuring that the funds support environmental objectives

directly, through environmental projects, and also ensuring that the environment is considered in all areas of spending, taking advantage of both opportunities to include environmental components in projects (e.g. energy efficiency in public buildings) or to support the use of environmental safeguards such as Strategic Environmental Assessment and Environmental Impact Assessment to ensure that any environmental damage is minimised or avoided.

The *Rete Ambientale* in Italy is one of the oldest such networks in the EU and is presented in Case 6 below. Other networks exist in Poland (see Case 8), Greece⁹ and Spain¹⁰. In the Polish case, technical assistance funds from EU Cohesion Policy are used to support the network.

6. Rete Ambientale - Network of Environmental and Managing Authorities

Italy

Root causes addressed: Use of EU funding

The Network of the Environmental Authorities and Managing Authorities of Structural Funds was established in the 1990s to ensure the integration of the environment into the European Structural and Investment Funds (ESIF). It is made up of national and regional environmental and managing authorities, and is based on a Memorandum of Understanding agreed and signed by the Environmental Authorities and the Managing Authorities dealing with the Operational Programmes (OPs) of the ESIF. Its signatories include national ministries and agencies, and almost all the regions and autonomous provinces. As most EU funding in Italy is managed at regional level, the network plays an important role in coordinating environmental priorities across the different regional funding programmes.

For the 2014 – 2020 period, the network coordinated the environmental aspects of national and regional OPs for the ERDF and ESF. Through an information tool, it coordinates the environmental priorities of the Italian regions in order to define possible synergies and ideas for solutions to common problems, resulting in a coherent and complementary set of investment objectives and priorities for the environment across Italy.

During the 2007-2013 period, the network reviewed the SEA monitoring systems for all OPs, which effectively assess the impacts that investments have on the environment, across all areas of funding. It also developed a methodology for assessing the vulnerability to climate change of municipalities and regions covered by the Convergence Objective (i.e. those receiving the

⁹ <http://www.eysped.gr/en/Pages/gen.aspx>

¹⁰ <http://www.mapama.gob.es/es/calidad-y-evaluacion-ambiental/temas/red-de-autoridades-ambientales-raa/>

most EU funds), aimed at improving the climate resilience of EU funded operations.

In addition, the network provides technical assistance and builds the necessary capacity for optimising the use of EU funds. It develops proposals, criteria and methodological guidance for environmental aspects of actions within the context of the ESIF. It also provides training and delivers guidance for implementing EU environmental policies, and supports the integration of environmental concerns into the standard operating procedures of the regional authorities, to ensure that coherence is achieved with the actions linked to the structural funds. The network also shares experience of best practices, including those which can foster synergies between different sources of financing.

Sources: Environment Network Webpages

Another way to support the better uptake of EU funds is through assistance to beneficiaries. This can be done through easily available guidance documents, as well as tailored assistance by managing authority staff.

7. Welsh European Funding Office – guidance for project applicants

Wales, United Kingdom

Root causes addressed: Use of EU funding

The Welsh European Funding Office (WEFO) is the overall managing authority for EU funds in Wales. The WEFO provides advice and guidance to help applicants to develop projects in line with the requirements of the programmes. Detailed guidance documents take applicants through two stages of applying for funding – the pre-planning stage and the business planning stage. Regional Engagement Teams – one for each of four sections of Wales – work with applicants to ensure funding proposals meet programme objectives and standards. They coordinate across projects and identify synergies and possible overlaps, and promote networking across ongoing projects.

WEFO also provides dedicated guidance on ‘cross-cutting themes’ - one of which is environmental sustainability - including a review matrix with tips on specific types of actions that can be integrated into projects developed under the different programme priorities. Some are specific actions – such as the inclusion of small-scale green infrastructure into the design of buildings (e.g. green roofs and walls). Others are more generic actions such as creating a sustainability ‘champion’, who will take responsibility for developing actions throughout the project and ensuring buy-in from stakeholders. They also include information about relevant sustainability indicators to be taken into account for different programme priorities and types of operations.

The WEFO also supports beneficiaries throughout the project delivery stages, including meetings to monitor progress, and on-going guidance related to the financial claims process. The detailed, tailored support given by WEFO to project applicants and beneficiaries enables a wider range of more local-level actors to access support from EU funds. *Sources: WEFO webpages*

4.4 Promote the integration of environmental concerns in sectoral policies

Survey respondents acknowledged that environmental objectives are not always sufficiently integrated in sectoral policies and spatial planning, mainly due to a lack of coordination between the different departments dealing with a specific issue.

There are mechanisms that can be used to address these problems and embed policy integration in administrative practices and cultures, or develop policies that support the integration of environmental objectives when implemented. For instance, regional and local authorities can benefit from developing a sustainable development strategy and/or sustainability indicators, which provide a broad framework for policy integration in the long term. In addition, regional and local authorities can undertake organisational changes to support policy integration, such as the creation of a formal structure to ensure effective coordination across sectors. Such organisational changes must be supported by the integration of environmental objectives in budgetary planning. Finally, involving local stakeholders in policy implementation through, for instance, voluntary agreements strongly contributes to sustainable development. Cases 8, 9 and 10 illustrate some of these mechanisms.

Case 8 presents a network aimed at improving environmental integration in Poland. Similar to the Italian network in Case 6, the Polish network focuses on the planning and implementation of EU funds. It is established and coordinated at national level and involves the regional administrations, which in Poland have significant responsibilities for planning and implementing EU funds. A key priority of the network is to improve mainstreaming environmental issues across all areas of regional development.

8. Partnership: Environment for Development (Partnerstwo: Środowisko dla Rozwoju)

Poland

Root causes addressed: policy integration, vertical coordination, use of EU funding

The "Partnership: Environment for Development" is a network coordinated by the ministry of environment. It aims to integrate environmental protection in the measures and programmes co-financed by EU funds. It provides a platform for permanent cooperation between environmental authorities and institutions managing EU funds, and is financed by the OP Technical Assistance (under EU Cohesion Policy).

The network is composed of national ministries, regional directorates for environmental protection, and regional managing authorities for OPs. It is structured into expert working groups, which deal with specific environmental areas. A major role of the working groups is to draw up detailed guidance and methodologies for integrating issues concerning environmental protection into the programmes and activities co-financed from EU funds. The Network also organises study visits to draw on the expertise of other EU Member States in incorporating environmental considerations into programmes and projects co-financed from EU funds.

The network helps to integrate environmental concerns into other areas of EU policy through generating continuous cooperation between national level authorities responsible for environmental protection and EU fund managers at various administrative levels. Joint activities, meetings and visits help to effectively incorporate environmental considerations in the preparation, management, implementation, monitoring and evaluation of programmes and projects co-financed from EU funds.

Sources: Information provided by the Network Secretariat of the Partnership: Environment for Development; General Directorate for Environmental Protection, 2015.

The establishment of sustainability indicators at city level can integrate environmental objectives in sectoral policies and support the cooperation between different departments in view of achieving progress in the implementation of the indicators, whilst representing a strong commitment from the city councils towards sustainability. Case 9 illustrates this approach. .

9. Sustainability Indicators at local level

Barcelona, Spain

Dublin, Ireland

Root causes addressed: policy integration

Both Barcelona and Dublin are examples of cities which have done extensive work in developing indicators and undertaking ongoing monitoring (Dekker et al., 2012). In Barcelona, the City Council has developed a set of sustainability

indicators to help implement the City Commitment to Sustainable Development 2012-22, collected annually from departments and other partner institutions. These indicators cover various areas relevant to the integration of environmental issues into other sectors, including environmental certifications of business and organisations and environmental education projects in schools.

In Ireland, the Dublin City Council has adopted a set of monitoring indicators as part of its City Development Plan 2011-2017. They include a wide range of sectors, including integrated spatial and infrastructure planning, transport, education (such as participation of schools in the Green Flag programme), along with various measures of environmental sustainability. In addition, indicators related to Strategic Environmental Assessment and Appropriate Assessment are also used to monitor the implementation of the plan.

Both Barcelona and Dublin are good examples of the use of indicators to monitor progress on integrating environmental objectives into various policy areas at local level. In Barcelona, the indicators are used to monitor progress on the Barcelona Commitment to Sustainability 2012-22, and to make decisions regarding programmes and actions going forward. In Ireland, the indicators are used to monitor progress and for setting future performance targets (Dublin City Council, 2012)

Sources: Information provided by the Dublin City Council; Dublin City Council, 2016; Dublin City Council, 2012; Dekker et al., 2012; European Commission, 2015b.

Finally, regional and local authorities have the possibility to reach out to the private sector and establish partnerships with industrial stakeholders to address environmental problems. Case 10 provides an example of a voluntary agreement between a local authority and private companies to reduce air pollution in the city.

10. Venice Blue Flag

Venice, Veneto Region, Italy

Root causes addressed: policy integration, horizontal coordination

The Venice Blue Flag is a voluntary agreement between the Venice Port Authority (VPA), the Venice municipality, the Venice Harbour Master and cruise companies, to switch to the use of green fuel in the Venice Lagoon (upon entry into the Lido Inlet). It was set up to contribute to improving the air quality by decreasing emissions stemming from the high sulphur content in shipping fuel. The initial agreement was made in 2007 and has been renewed during different cruise seasons.

The VPA maintains regular contact with the cruise companies and are responsible for collecting information on controls and results submitted by the cruise companies. The Port Authority also works with the Harbour Master to increase the number of participants. The 2017 agreement introduces the requirement to publish inspection results on the Port of Venice website and for cruise companies to declare whether they are in compliance, or which equivalent substitute measures they will take.

The Blue Flag is seen as a successful example of cooperation between local governments and private companies to decrease emissions from shipping in the short term, as voluntary agreements can be implemented more quickly. It has also set a much a lower limit for sulphur concentrations than is required in EU and national regulations. All of the cruise companies that use the port of Venice are now signed up to the agreement, thanks to a campaign in 2017 by the VPA, in collaboration with the other public bodies. During 2003 cruise season, the Blue Flag contributed to an estimated 40% reduction in particulate matter air emissions at the local scale (in the Venice Lagoon). It therefore can make a positive contribution to meeting the targets of the Veneto Region's Air Quality Plan, and therefore EU air quality regulations.

Sources: Information provided by the Venice Port Authority; Terranova et al., 2015.

4.5 Develop mechanisms to facilitate data sharing

The effective implementation of EU requirements related to environmental data sharing, requires the establishment of a clearly defined policy for the coordination of data sharing, with a clear distribution of responsibilities and procedures for sharing across levels of governance, and the development of support mechanisms to help regional and local authorities in the sharing of their data. Local and regional authorities need to play a role in data collection and sharing, and need to be open to sharing available data across sectors and levels of governance. At the same time they require considerable resources and support to do so, which should be part of any policy.

Case 11 is a national programme supporting local and regional authorities in sharing their data. Case 12 presents a regional geographical information network, which supports municipalities in the region to fulfil their duties under the INSPIRE Directive.

11. Open Data Locale

France

Root causes addressed: knowledge and data; vertical coordination

Open Data Locale is a project being piloted in nine regions (and involving 30 local authorities) run by Opendata France (association of regional and local authorities committed to share public data). It supports the general opening up of regional and municipal data, including on environmental topics. The project follows the adoption a series of requirements for making available public authorities' datasets free of charge, including the latest Digital Republic Law, adopted in October 2016.

The project provides harmonised guidance to municipalities and regions, including through free online 'resource kits' containing technical materials and legal articles on data sharing. This enables them to understand their legal obligations concerning data sharing, and how to set about opening their data in practice. Training is also given to elected officials and community officials, so that they can become autonomous in the public sharing of data in the long run. Further, regional, departmental or inter-municipal actors from each pilot region are also invited to provide human and financial resources to small and medium-sized municipalities to open their data.

By providing common guidance, the initiative supports municipalities and regions to share data in a consistent manner and in conformity with relevant legislation, improving accessibility and user-friendliness. Ultimately, by supporting open access to comparable data, including on environmental themes, authorities, citizens and the private sector can better monitor progress and better implement environmental legislation.

Sources: Open Data Locale website; Open PACA website.

12. Lounaispaikka

Finland

Root causes addressed: knowledge and data; horizontal coordination

Lounaispaikka is a regional geographical information network established in 2002 by the Regional Council of Southwest Finland. The portal gathers spatial data sets produced by municipalities and other parties in the region, such as the University of Turku, and publish them in an online map service. Since 2012, Lounaispaikka is the service centre of regional councils for the provision of data sets falling into the scope of the INSPIRE Directive. The network also supports municipalities and regional councils with INSPIRE related issues and offers specific courses to use geographical information systems.

Sources : Lounaispaikka website; Finland INSPIRE implementation report,

4.6 Develop mechanisms for ensuring the consistency and quality of enforcement

Effective implementation of EU environmental legislation requires enforcement, which is frequently dependent upon regional and local level actors. When different institutions and levels of government play a role in enforcement, it is necessary to promote the consistency and quality of such enforcement across the territory. This has been done in several countries through the establishment of coordination mechanisms or networks aiming to both improve the coordination and consistency of enforcement and strengthen specialist skills. Cases 13, 14 and 15 present coordination mechanisms in three countries or regions involving administrations responsible for compliance monitoring and inspections, administrations responsible for public prosecution, and police services.

The NIECE network, in Case 13, provides a solution to the fragmentation of enforcement and the application of different enforcement regimes within a country.

13. Network for Ireland's Environmental Compliance and Enforcement (NIECE)

Ireland

Root causes addressed: Compliance assurance, administrative capacity, vertical coordination

Local authorities have, together with the Irish Environmental Protection Agency (EPA), the shared responsibility to enforce more than 500 environmental protection requirements (EPA, 2014), conduct inspections and investigation and carry out enforcement actions. Following criticism from the European Commission on the lack of enforcement of the Waste Framework Directive and an ECJ case against Ireland regarding illegal waste activities, the EPA and the local authorities established the Network for Ireland's Environmental Compliance and Enforcement (NIECE). The network aims to improve the coordination and consistency of enforcement between the many authorities involved, and is supported by the Department of Environment, Community and Local Government along with various agencies.

The network coordinates environmental enforcement activities, develops consistent approaches to the enforcement of environmental legislation, promotes the use of best practices among local authorities, develops the capacity of enforcement authorities through guidance and training and

maintains working groups. The network has also developed risk-based methodologies to determine priorities and ensure a common approach to enforcement planning throughout the country (EPA, 2014).

The NIECE network was a successful response to the need for collaboration between enforcement authorities. It provides a mechanism to build capacity of enforcement authorities, concentrate financial and human resources, and improve the effectiveness of enforcement actions.

Sources: EPA, 2014; European Commission 2016b

Moreover, it is important to facilitate the cooperation between administrations responsible for environmental monitoring and inspections, as well as prosecuting bodies to ensure that sufficient evidence is collected during the investigation to warrant the prosecution. The prosecution office in the Land of North Rhine Westphalia in Germany is an example of cooperation structure within the regional administration of the Land to increase the rate of prosecution for environmental crime.

14. Prosecution office North Rhine Westphalia (Stabsstelle Umweltkriminalität)

North Rhine Westphalia, Germany

Root causes addressed: Compliance assurance, administrative capacity, horizontal coordination

The Stabsstelle Umweltkriminalität is a specialised prosecution office within the Ministry of the Environment of North Rhine Westphalia, set up in 2004 to improve the prosecution of environmental and food crimes, through cooperation between the environmental administration and law enforcement agencies. Prior to its establishment, low reporting rates and the lack of expertise in criminal law within the environmental administration, were hampering the rate and success of prosecutions of environmental crimes.

The office performs its functions in a variety of ways. Its staff includes experts in criminal law, who provide expertise to the environmental administration on how to compile cases of environmental infractions. It also acts as a contact point for local, state and federal authorities for exchanging information necessary to prosecute environmental infractions. Local and regional level environmental inspectors both provide inspection data to the office and use its advisory services. Finally, the office has set up and maintains a comprehensive network covering a wide range of institutions, authorities and organisations relevant to environmental and food crimes. Through this network, the office spreads information and expertise on cases and judgements that it collects.

By providing expertise in criminal law to the environmental administration, the Stabsstelle Umweltkriminalität helps them to build legal cases related to environmental infractions, therefore supporting prosecutions and sanctions. Its activities have led to several instances of charges and final convictions, thanks to meticulously prepared criminal charges and statements. A specific example is in the field of species protection crime, where in four cases, four offenders have been sentenced to two years' imprisonment for violating EU (Regulation) No. 338/97 for withdrawing wild birds, reptiles and amphibians from nature throughout Europe.

Sources: Interview and documents provided by the Federal Ministry for the Environment, Nature Conservation, Construction and Nuclear Safety; Stabsstelle Umweltkriminalität webpage

Improving the cooperation between the administration responsible for enforcement and police services is also important to increase the identification, sanctioning and prosecution of environmental crimes. This can be done through a formal cooperation agreement specifying enforcement priorities. Case 15 presents a cooperation agreement between the regional administration of Castilla y León (Spain) and police services.

15. Cooperation agreement between the national police (Guardia Civil) and the regional government

Castilla y León, Spain

Root causes addressed: Compliance assurance, administrative capacity, vertical coordination

In 2015 the national police (Guardia Civil) and the regional government of Castilla y León renewed a previous cooperation agreement related to the enforcement of environmental laws. The cooperation specifically involves the regional department for the environment and its body of forest and environmental 'guards' and the national police at the local or provincial level.

The cooperation is set out in priorities and specific campaigns agreed at bi-annual meetings. Good relationships between the police and regional government staff were initially established at provincial meetings, which set out all the relevant contact persons at local, provincial and regional level in each environmental area. Training is also provided for police officers and environmental guards on technical topics relating to inspections, which also helps to build and maintain good relationships. Finally, the cooperation also allows the regional authorities to pool resources and equipment with the police.

The cooperation has been very successful at building mutual trust between the

two parties, facilitating the exchange of information and allowing for coordinated operations. It draws together the individual competencies of each side, for example the regional guards' environmental knowledge and investigatory powers, with the power of the national police to make arrests. Regional government staff also share their expertise on relevant environmental legal provisions with the police so that they can pursue investigations and prosecutions. This has led to successful joint operations, for example prosecuting the illegal foraging of protected fungi species and the control of illegal hunting of deer.

Information provided by the Ministry of Development and Environment of Castilla y León; Protocol of Agreement between the regional department of the environment in Castilla y León (Consejería de Medio Ambiente of Junta de Castilla y León) and the Ministry of the Interior (National Security Department), 2001; Press coverage of illegal hunting operations; Press coverage of illegal mushroom picking

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Annex 2: Online survey questionnaire

About the survey

As part of the Environmental Implementation Review (EIR), a two-year policy cycle aiming at improving the implementation of existing EU environmental policy and legislation, the European Commission issued a Communication on [“the EU Environmental Implementation Review: Common challenges and how to combine efforts to deliver better results”](#), in which it identified six common root causes of gaps in the implementation of EU environmental legislation: ineffective coordination among local, regional and national authorities, lack of administrative capacity and insufficient financing, lack of knowledge and data, insufficient compliance assurance mechanisms and lack of integration and policy coherence.

The European Committee of the Regions (CoR) is currently drafting an Opinion on the Environmental Implementation Review (EIR), to be adopted in October 2017, which will provide recommendations on addressing the common root causes and key implementation challenges, as identified in the Commission Communication, with a focus on local and regional authorities and their cooperation with the national levels.

This consultation is being carried out as part of a study undertaken by Milieu Ltd to support the drafting of the CoR Opinion. The report should analyse the underlying aspects of the main root causes of environmental legislation implementation gaps at local and regional level, identify actions that successfully address these root causes and provide recommendations on how to improve cooperation with and better support local and regional authorities for a more effective multi-level governance. The study thereby also intends to inform the European Commission's future work on the EIR.

The objective of this consultation is to gather opinions of stakeholders on the root causes of implementation gaps, and successful practices to address them. A selection of 15 short good practice case studies will be part of the study.

Answering the questionnaire

You can answer this questionnaire either in your own personal capacity or on behalf of an organisation. The different questions request your opinion based on your own knowledge, experience or judgement. Where the questions refer to levels of governance, you are expected to answer considering the administrative level and geographic area you are operating in or covering as an organisation. All questions marked with an asterisk are mandatory. If any of the corresponding mandatory fields have not been filled in, the system will redirect

you to the incomplete answer before allowing submission. Please note that you have the possibility to save your contribution before submitting it and to modify it after submission. A [Help page for participants](#) is available on the EU Survey website. For more information or additional questions please contact: Carsten.Brauns@cor.europa.eu or lise.oules@milieu.be.

The follow-up to your contribution requires that your personal data (name, contact details, etc.) be processed in a file. All the answers to the questions are voluntary. Your replies will be kept for a period of 5 years after the reception of the questionnaire. Should you require further information or wish to exercise your rights under Regulation (EC) No. 45/2001 (e.g. to access, rectify, or delete your data), please contact the data controller at enve@cor.europa.eu. If necessary, you can also contact the CoR Data Protection Officer (data.protection@cor.europa.eu). You have the right of recourse to the European Data Protection Supervisor at any time (www.edps.europa.eu). Your questionnaire might be transmitted to CoR rapporteurs and other EU institutions for information. If you do not wish so, please inform us accordingly.

About the respondent

1. Are you replying as*:

- An individual
- A national authority
- A regional authority or other sub-national authorities
- A local authority
- An EU/international network of national, regional and/or local authorities
- A national association of regional and/or local authorities
- A NGO, environmental or consumer group
- An industry association
- A research organisation
- Other

If other, please specify*:

2. Please state your name or the name of your organisation*

3. Where are you or your organisation based*?

Austria
Belgium
Bulgaria
Czech Republic
Croatia
Cyprus
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Ireland
Italy
Latvia
Lithuania
Luxembourg
Malta
Netherlands
Poland
Portugal
Romania
Slovakia
Slovenia
Spain
Sweden
United Kingdom
Other

If other, please specify*:

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4. What are your main areas of responsibility, activity or expertise*?

- Water management
- Waste management
- Air quality
- Nature protection
- Other

If other, please specify*:

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Coordination among local, regional and national environment authorities

Ineffective coordination among local, regional and national authorities has been identified in the EIR as an obstacle to implementation in Member States as responsibilities concerning implementation or monitoring are often scattered among different authorities without sufficient coordination mechanisms. Coordination mechanisms are necessary to enable the implementation of environmental legislation and especially avoid duplication of work, overlapping responsibilities, contradictory decisions, causing administrative burden and delays in implementation. Coordination mechanisms also ensure the alignment of policy objectives and encourage the efficient use and pooling of resources and skills.

Vertical coordination refers to relations between administrative levels (national, sub-national, local) and **horizontal coordination** to interactions between authorities and/or stakeholders at a specific territorial level (country, region, city etc.).

5. What are the most important factors impeding effective vertical coordination between national, regional and local authorities? Please score each factor from 1 (not impeding), to 5 (impeding very significantly).

	1	2	3	4	5
Unclear division of responsibilities					
Overlaps in responsibilities					
Absence of coordination and consultation mechanisms					
Lack of legal requirements for coordination					
Lack of necessary political will and institutional culture (e.g. a culture working in isolated 'silos')					

6. What are the most important factors impeding effective horizontal coordination across regional and across local authorities? Please score each factor from 1 (not impeding), to 5 (impeding very significantly).

	1	2	3	4	5
Absence of coordination and consultation					

mechanisms					
Lack of legal requirements for coordination					
Lack of necessary political will and institutional culture (e.g. a culture working in isolated 'silos')					
Lack of participation in networks, information sharing					

7. Please provide below a brief explanation of your answers, distinguishing if possible between different areas (e.g. water, waste, nature protection and air quality). Please feel free to add other factors to those listed above, if relevant.

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8. Good practices/case studies: If you know examples of good practices, which have proved successful in solving any of the above factors of vertical and horizontal coordination, please describe them shortly and if possible, provide any links or document related to the good practice.

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Administrative capacity of local and regional authorities

Weak administrative capacity can impact regional and local authorities' ability to implement EU environmental legislation, including *inter alia* the provision of environmental services, as well as enforcement, monitoring and reporting tasks.

9. What are the most important factors limiting the administrative capacity of regional and local authorities for effectively implementing EU environmental policy and legislation? Please score each factor from 1 (not limiting), to 5 (limiting very significantly)

	1	2	3	4	5
Insufficient numbers of human resources (staff)					
Lack of necessary skills (or access to skills)					
Lack of capacity building (training, guidance)					
Too broad scope of responsibility for individuals					
Lack of financial resources					

10. Please provide below a brief explanation of your answers, distinguishing if possible between different areas (e.g. water, waste, nature protection and air quality). Please feel free to add other factors to those listed above, if relevant.

11. Good practices/case studies: If you know examples of good practices, which have proved successful in solving any of the above factors of administrative capacity, please describe them shortly and, if possible, provide any links or document related to the good practice.

Use of European and other funding and of market-based instruments for the implementation of EU environment legislation at the local and regional level

Local and regional authorities require financial resources for many capacities related to implementation of environmental legislation. These range from ongoing costs such as hiring and training staff, to providing public information and maintaining data collection and reporting capacity to large-scale investment costs such as those related to the construction of environmental infrastructure necessary to achieve compliance. In many cases publicly funded budgets are not sufficient to meet these needs. One option for many authorities is to access EU funds dedicated to supporting the implementation of environmental legislation and ongoing compliance costs. Another is the collection of environmentally-related taxes, fees or fines which can be then targeted towards supporting environmental compliance.

12. In which environment area is funding from the European Structural- and Investment Funds (ERDF, Cohesion Fund, ESF, EARDF, EMFF) mostly needed? You may choose up to two responses.

- Water management
- Waste management
- Biodiversity, Green Infrastructure, Ecosystem Services and Natura 2000
- Other

If other, please specify:

13. What are some of the main barriers to better use of EU and national funding and of market-based instruments at regional and local level?

	1	2	3	4	5
Lack of publicity and information about availability of EU funds					
Complexity of procedures to access EU funds					
Low priority given within Operational Programmes to funding for environment					
Insufficient allocation of co-financing from national level to regional/local authorities					
Lack of competence for raising funds/applying market-instruments (e.g. taxes, fees, fines etc.)					
Insufficient local tax base					

14. Local and regional authorities should be key implementing partners in the planning and implementation of EU funds, and need to be involved to ensure that funding is available to support their needs in implementing environmental legislation. How important are the following challenges to effective participation in the planning and implementation of EU funds?

	1	2	3	4	5
Poor consultation of local and regional authorities in the development of Operational Programmes					
Poor consultation of environmental stakeholders at all levels in the development of Operational Programmes					
Lack of cooperation and networking of environmental stakeholders dedicated to promoting environmental investments					
Limited participation of local and regional authorities in networks dedicated to promoting environmental investments					

15. Often EU funding is available and planned for investing in the environmental infrastructure (e.g. wastewater treatment, solid waste management) that is required for local and regional authorities to implement and ensure compliance with environmental legislation, but

the funding is not ‘absorbed’ or spent in a timely manner. What are the main reasons for this?

	1	2	3	4	5
Lack of involvement of local and regional authorities in project planning and design					
Difficulty for local and regional authorities to secure co-financing for infrastructure projects					
Cash flow management if external financing is delayed					
Difficulties related to tendering procedures and capacity of implementing contractors					

16. Please provide below a brief explanation of your answers, distinguishing if possible between different areas (e.g. water, waste, nature protection and air quality). Please feel free to add other factors to those listed above, if relevant.

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17. Good practices/case studies: If you know examples of good practices, which have proved successful in solving any of the above barriers to the use of funding and market-based instrument, please describe them shortly and if possible, provide any links or document related to the good practice.

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Policy integration and coherence

Environmental policy integration refers to the integration of environmental concerns in policies across all sectors. It is relevant at regional and local levels where authorities are often responsible for spatial planning and can manage local investment programmes. Furthermore, local and regional authorities depend upon sectoral policies, often developed at the national level, to be able to successfully carry out their roles in protecting the environment in their territory. Environmental policy integration is closely linked to coordination mechanisms and administrative capacity of regional and local authorities, and depends on their ability to work with relevant stakeholders.

18. What are the most important factors impeding the integration of environmental concerns into other policy areas at regional and local

levels? Please score each factor from 1 (not impeding), to 5 (impeding very significantly).

	1	2	3	4	5
Poor integration of environmental concerns by regional/local spatial planning					
Poor coordination of other sectoral departments with environmental departments at local and regional levels					
Poor integration of environmental concerns in national sectoral policies					
Poor cooperation with industrial stakeholders at local and regional levels					
Limited involvement of stakeholders in policy Implementation at local and regional levels					
Lack of competence in planning and decision making at sectoral level					

19. Please provide below a brief explanation of your answers, distinguishing if possible between different areas (e.g. water, waste, nature protection and air quality). Please feel free to add other factors to those listed above, if relevant.

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20. Good practices/case studies: If you know examples of good practices, which have proved successful in solving any of the above factors of policy integration and coherence, please describe them shortly and if possible, provide any links or document related to the good practice.

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Local and regional knowledge and data

Regional and local authorities have a key role in collecting environmental data and providing information to the public. However, according to the EIR, missing or unreliable data have caused implementation problems in many Member States. Data are also often scattered between different authorities, hampering monitoring and reporting activities, and enforcement.

21. What are the most important factors impeding the effective monitoring and reporting of environmental data at regional and local levels? Please

score each factor from 1 (not impeding), to 5 (impeding very significantly)

	1	2	3	4	5
Unclear allocation of monitoring and reporting responsibilities					
Inconsistent monitoring and reporting systems across levels of governance (e.g. indicators, templates)					
Lack of specific guidance on monitoring and reporting					
Lack of dedicated resources					
Lack of horizontal cooperation at regional and local level on monitoring and reporting					

22. Please provide below a brief explanation of your answers, distinguishing if possible between different areas (e.g. water, waste, nature protection and air quality). Please feel free to add other factors to those listed above, if relevant.

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23. Good practices/case studies: If you know examples of good practices, which have proved successful in solving any of the above barriers to the monitoring and reporting of environmental data, please describe them shortly and if possible, provide any links or document related to the good practice.

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Local and regional compliance assurance mechanisms

Effective compliance assurance requires the involvement of all levels of government. Regional and local authorities often have significant responsibilities in issuing licenses, controlling the activities of licensees and monitoring signs of non-compliance (e.g. pollution). Regional and local authorities are often the best placed to implement compliance promotion activities towards stakeholders directly affected by environmental legislation.

24. What are the most important factors impeding the effective enforcement of EU environmental legislation at regional and local levels? Please score each factor from 1 (not impeding), to 5 (impeding very significantly).

	1	2	3	4	5

Unclear allocation of responsibilities related to enforcement					
Limited coordination and cooperation of enforcement authorities across the different levels of government					
Limited financial resources and staff in enforcement authorities at regional and local levels					
Limited specialist skills in enforcement authorities at regional and local levels					
Lack of prioritization of enforcement of Environmental legislation					
Lack of compliance promotion activities at regional and national levels					
Lack of participation in national / European experts' networks					

25. Please provide below a brief explanation of your answers, distinguishing if possible between different areas (e.g. water, waste, nature protection and air quality). Please feel free to add other factors to those listed above, if relevant.

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26. Good practices/case studies: If you know examples of good practices, which have proved successful in solving any of the above factors of enforcement, please describe them shortly and if possible, provide any links or document related to the good practice.

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Support tool to exchange expertise and good practices

The Commission will launch a dedicated Peer 2 Peer support tool for exchange of expertise among authorities dealing with the implementation of EU environmental policy and law, for the issues addressed in the EIR, including the 'root causes' of weak implementation mentioned in this survey. This tool will allow for different types of exchanges (expert missions, study visits and workshops), based on the needs identified by the implementing authorities. TAIEX-EIR P2P can arrange and cover travel and accommodation costs and per diems for experts travelling on missions or to workshops.

To support this initiative, please answer the following questions.

27. In which areas would you consider asking other regional or local authorities to share their good practices with you?

- Coordination among local, regional and national authorities
- Administrative capacity
- Use of EU and other funding and of market-based instruments
- Knowledge and data
- Compliance assurance mechanisms
- Integration and policy coherence

28. In which areas would you consider offering other regional or local authorities to share your good practices with them? Please rank according to importance (1 not important, 5 very important)

- Coordination among local, regional and national authorities
- Administrative capacity
- Use of EU and other funding and of market-based instruments
- Knowledge and data
- Compliance assurance mechanisms
- Integration and policy coherence

29. Please provide below a brief explanation of your answers, distinguishing if possible between different areas (e.g. water, waste, nature protection and air quality).

Contact

30. Do you agree to be contacted to discuss further some of your answers and/or the case study proposed?

- Yes
- No

If so, please provide an email address or telephone number

Annex 3: List of respondents to the online survey

Respondent	Member State	Category of respondent
Jennette Arnold, CoR Member, London Assembly Member	United Kingdom	Local authority
EXPRA	Belgium	Industry association
Uno Silberg, CoR member, Kose Municipality Council	Estonia	Local authority
“CD” (full name not stated)	Belgium	Individual
Basque Government	Spain	Regional authority
Robert Zeman, CoR alternate member, Councillor of the Town of Prachatice	Czech Republic	Local authority
Valter Flego, CoR member, Prefect of Istra County	Croatia	Regional authority
Maia Municipality	Portugal	Local authority
Southern Regional Assembly	Ireland	Regional authority
Drama Chamber of Commerce and Industry	Greece	An industry association
Inma Pruna Diputació de Barcelona (Barcelona Provincial Council)	Spain	A regional authority
João Daniel Gomes Luís, Regional Directorate of Spatial Planning and Environment	Portugal	Regional authority
Dasa Sulekova, Slovak environmental inspectorate	Slovak Republic	National authority
Chief Inspectorate for Environmental Protection, Inspection and Administrative Ruling Department	Poland	National authority

Regional Environment Inspectorate for the Azores islands	Portugal	Regional authority
Ministry of Environment and Water	Bulgaria	National authority
Aylin Hasan, Natura 2000 Department, Ministry of Environment and Water	Bulgaria	National authority
Ministry of Environment and Water, Water Management Directorate	Bulgaria	National authority
DG OP Environment, Ministry of Environment and Water	Bulgaria	National authority
Regional Government of Upper Austria, Department of Investment, Environment and Water Law	Austria	Regional authority
Harghita County Council	Romania	Local authority
Magistrat Klagenfurt on Lake Wörthersee	Austria	Local authority
Ana Cristina Costa	Portugal	Individual
CMP (full name not stated)	Portugal	Local authority
Esposende Ambiente	Portugal	Local authority
Porto Municipality	Portugal	Local authority
Figueira de Castelo Rodrigo Municipality	Portugal	Local authority
Chaves Municipality	Portugal	Local authority
Government of Carinthia, department 8	Austria	Regional authority
Mealhada Municipality	Portugal	Local authority
Loures Municipality	Portugal	Local authority
General directorate of environmental quality and climate change, Regional	Spain	Regional authority

government of Galicia		
Mesão Frio Municipality	Portugal	Local authority
Freixo de Espada à Cinta Municipality	Portugal	Local authority
São Roque do Pico Municipality	Portugal	Local authority
Praia da Vitória Municipality	Portugal	Local authority
Rio Maior Municipality	Portugal	Local authority
Maia Municipality; J.A. Campos Neves	Portugal	Local authority
General Inspection for Agriculture, Sea, Environment and Spatial Planning (IGAMAOT)	Portugal	National authority
Ribeira de Pena Municipality	Portugal	Local authority
Monforte Municipality	Portugal	Local authority
Belmonte Municipality	Portugal	Local authority
Avis Municipality	Portugal	Local authority
Association of Netherlands Municipalities (VGN)	Netherlands	Local authority
SICONA Naturschutzsyndikat	Luxembourg	Local authority
Kristina Rabe, Federal German Ministry for the Environment, Nature Protection, Building and Nuclear Safety	Germany	National authority
Northern and western Regional Assembly	Ireland	Regional authority
Odivelas Municipality	Portugal	Local authority
Marche Region, Department for Land Protection, Management and Planning	Italy	Regional authority

Department of ecology, Transcarpathian regional administration	Other	Regional authority
FrankfurtRheinMain Regional authority	Germany	Regional authority
Danish Ministry of the Environment, Industry Unit	Denmark	National authority
Coordination Committee for the International Environment Policy	Belgium	National authority
Alvaro Picardo, General Direction responsible on Forestry and Nature Conservation, Regional Government of Castilla y León, Spain	Spain	Regional authority
Maia Municipality	Portugal	Local authority
Moimenta da Beira Municipality	Portugal	Local authority
Rubina Brito, Porto Santo Municipality	Portugal	Local authority
Regional environmental inspectorate	Portugal	Regional authority
Coimbra Municipality	Portugal	Local authority
Palmela Municipality	Portugal	Local authority
Ponte de Sor Municipality	Portugal	Local authority
Lisbon Municipality	Portugal	Local authority
Arcos de Valdevez Municipality	Portugal	Local authority
Vila Nova de Famalicão Municipality	Portugal	Local authority