UNABLE OR UNWILLING?

Explaining the Implementation Gaps within the EU's Environmental Policies

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Abstract

This paper sheds light on the paradox constituted by the implementation gaps within the EU's environmental policies. This represents an interesting paradox for a number of reasons. First and foremost, it is obviously an issue that the objectives of EU's environmental policies are not achieved when there are gaps in the implementation of these. This of course have negative implications for the protection of the EU's environment. Furthermore, the poor implementation of environmental policies is connected with substantial economic and societal costs and violates the European Commission's aim of better regulation. Considering these negative consequences, it is seemingly paradoxical that urgent gaps arise and persist in the implementation of the EU's environmental policies. Thus, this paper asks why there are gaps in implementation within the EU's environmental policies? This question is answered through a cross sectional research design where data is obtained on quantifiable and systematic indicators with the aim of uncovering the dynamics that cause gaps in implementation. This paper takes a new approach to the quantitative assessment of implementation performance as it does not rely on the conventional indicators based on transposition or infringement data. Instead a quantitative measure of implementation performance is derived from the recent 'Environmental Implementation Review' published by the European Commission. The theoretical developments within the field of EU implementation studies leads this paper to include factors related to the willingness and the capacity of the member states to implement EU policies. Public opinion, the salience of environmental issues and the respect for the rule of law are included as factors influencing the willingness of Member States to implement. The capacity of member states to implement is included in dimensions related to administrative capacity, quality of government, multi-level governance and veto-player theory. This paper furthermore discusses how the willingness and capacity to implement might be related. Linear regression is used as the statistical method of analysis in order to examine the patterns of association between the dependent and independent variables operationalized. On the basis of this analytical framework it is concluded that poor Quality of Government and lack of Respect for the Rule of Law are the most robust explanations of why there are gaps in implementation within the EU's environmental policies.

Contents

1.0 Introduction – The Implementation Gaps within the EU's Environmental Policies

The European Commission (EC) in May 2016 launched its 'Environmental Implementation Review' (EIR) initiative in which the aim is to: "*support the delivery of the objectives of existing EU environmental policies and legislation*" (European Commission, 2017a). To this end, the EC has started a bi-annual EIR cycle in which country-specific reports are drafted that highlight the main challenges and successes in the implementation of the EU's environmental polices. The first cycle of the EIR was completed the 3rd of February 2017 when the EIR package was adopted by the EC. This package includes a Communication from the EC outlining common problems across the EU28 as well as the national reports analyzing implementation in the individual member states (MS). (European Commission, 2017b) The central conclusions of the Communication are that the main challenges and the most urgent gaps in implementation across MS are within the policy areas of waste management, nature and biodiversity, air quality, noise and water quality and management (European Commission, 2017c, p. 3).

There are several reasons for ensuring and promoting better implementation of EU environmental policies. It is obviously an issue that gaps in implementation entail that the objectives of the EU's environmental policies are not achieved. More broadly, closing the gaps in implementation is necessary if the EU is to live up to its environmental ambitions as outlined in the 7th Environmental Action Programme, in which the need to ensure better implementation is also recognized (European Commission, 2016a). Furthermore, better implementation is in line with other policy objectives of the EC. Firstly, the EC's 'Better Regulation' agenda has as its main theme the improvement of the implementation of existing policies and legislation. Secondly, it is linked to the process of Greening the European Semester which denotes that environmental policy and macroeconomic policy instruments should be used to support one another. (European Commission, 2017d) If such a 'Greening' is to take place, and the EU is to take advantage of the economic potentials of environmental policies, effective implementation is a precondition. The potential economic benefits of closing implementation gaps are elaborated further below. Thus, ensuring better implementation is necessary if the EU is to achieve the goals established in its environmental policies and it is in line with other policy objectives as well.

Popular opinion also supports better implementation as 75 % of EU citizens view EU environmental legislation as a precondition for protection of the environment in their country. Furthermore, almost 80 % agree that the EU institutions should be able to check that environmental legislation is being applied correctly in their country. (European Commission, 2017c, p. 1) This underlines the need for the EU to deliver on its environmental ambitions and to ensure better implementation.

Moreover, the EC empathizes, besides the obvious environmental costs, that weak implementation generates high societal and economic costs as well as creating an uneven playing field for businesses (European Commission, 2017c, p. 2). In this regard the EC highlights the potential economic benefits that full implementation of the EU's environmental policies could have: "*Full implementation (…) could save the EU economy €50 billion every year in health costs and direct costs to the environment."* (European Commission, 2017d). Specifically, the EC points to some areas in which there could be significant economic benefits of full implementation of EU environmental requirements:

- *Full compliance with EU waste policy by 2020 could create an additional 400,000 jobs and an additional annual turnover in the waste management and recycling industries of EUR 42 billion.*
- *If existing EU water legislation were to be fully implemented, and all water bodies to achieve a 'good' status ranking, the combined annual benefits could reach at least EUR 2,8 billion.*
- *The Natura 2000 network delivers estimated gains of EUR 200-300 billion per year across the EU and full implementation of Natura 2000 would lead to the creation of 174,000 additional jobs.* (European Commission, 2017c, p. 2)

Considering the potential economic benefits of implementing the EU's environmental policies fully, it is paradoxical that there remain urgent implementation gaps. It is even more contradictory when considering that popular opinion supports protecting the environment through full implementation of the environmental acquis. Evidently, it is also an issue that the EU's environmental aims of protecting, preserving and improving the environment are not achieved when proper implementation is not taking place. Consequently, this paper sets out to shed light on this paradox, and on this basis the research question is now defined.

2.0 Research Question

Based on the arguments made above and the paradox described, this paper sets out to answer the following research question (RQ):

Why are there implementation gaps within the EU's environmental policies?

This section briefly presents the plan of this paper. Firstly, the research design of this paper is outlined in the next chapter. This is based on a Cross Sectional Design and it is argued why this design is suitable in ensuring that the evidence obtained allows for answering the RQ as unambiguously as possible. Secondly, an indicator of implementation performance is operationalized on the basis of the EIR, and it is argued why this is valid indicator for the dependent variable "implementation gaps". Thirdly, the literature on EU implementation is reviewed and the theoretical framework of this paper is outlined. This framework includes explanations that relate to the willingness and the capacity of MS to implement EU policies. Fourthly, in the chapter on method, indicators for the relevant theoretical concepts are operationalized and linear regression as the statistical method of analysis is presented. Based on this analytical framework, the data is analyzed after which the results are discussed and finally a conclusion is made.

3.0 Research Design – The Cross Sectional Design

The role of the research design is to ensure that the evidence obtained allows the RQ to be answered as unambiguously as possible. Or in other words, it is a matter of addressing the logical question of answering the thesis of this paper. (de Vaus, 2011, p. 9) Thus, the aim of this section is to clarify why the Cross Sectional design is suitable in overcoming the logical issue of answering the RQ at hand.

When conducting social science research there are a number ideal types for research designs: the cross-sectional design, the longitudinal design, the experimental design, the case study design and the comparative design, which all in principle can be applied to any RQ. It is also important to note that these are ideal types and in reality elements from different designs are often combined in research. (Bryman, 2012, p. 76-77; de Vaus, 2011, p. 48-52)

The RQ entails that this paper is interested in examining the factors which cause implementation gaps across environmental policies. One way to establish this is to examine the variation in relevant factors between the MS which have a good implementation performance and the ones that have a worse implementation performance. Reflecting on this, the characteristics of the Cross Sectional design are suitable in a number of ways. In a cross sectional design quantifiable data based on systematic and standardized indicators is collected from more than one case in order to gauge patterns of association between the cases (Bryman, 2012, p. 59). In this paper, the MS are cases from which data is collected on implementation performance and on the relevant independent variables. Based upon this data, it is possible to examine the patterns of association and to make conclusions on what characteristics that causes variation in the number of implementation gaps, thereby allowing the RQ to be answered in an unambiguous manner. How the relevant data is collected and analyzed is an issue of method which is dealt with below.

Reflecting on some of the disadvantages of employing a cross sectional design, especially in relation to internal validity, these are mitigated by the nature of the issue at hand. It can be argued that implementation is inherently an outcome phenomenon, which means that there is little uncertainty about the causal direction between implementation and the independent variables included. In other words, there is little uncertainty about the time ordering of the variables. Moreover, the independent variables included are drawn form theoretical models and previous research. While this does not necessarily prove a causal direction, it provides a theoretical basis for arguing a causal relationship (de Vaus, 2011, pp. 180-181). Consequently, the cross sectional designs issues of ‘ambiguity of casual direction’ and the reliance on a passive approach to making casual inferences (Bryman, 2012, p. 59; de Vaus, 2011, p. 172) are largely overcome. Furthermore, implementation performance within environmental policies and the factors causing this are also fundamentally non-manipulable phenomenon (Bryman, 2012, p. 61) whereby any random group allocation or influencing of variables is unconceivable. Accordingly, it

is necessary to rely on the existing differences between the MS, in order to examine what impact these have on the outcome variable.

Another weakness of the cross-sectional design is in relation to the adequacy at the level of meaning, when relying on a nomothetic explanation. In a nomothetic explanation, a partial explanation of a class of cases is given rather than a 'full' explanations of a particular case. (de Vaus, 2011, pp. 22,181) Contrarily an idiographic explanation focuses on a particular case in which the aim is to give a complete account of the case in order to uncover the meaning actors contribute to their actions (de Vaus, 2011, p. 22). Considering the phenomenon at hand, Implementation gaps, it can constitute a behavior that can entail very different things depending on the context where gaps are found. Consequently, important factors for explaining implementation gaps in the specific cases could be missed in a cross sectional design, due to its reliance on a nomothetic explanation. The focus is instead on a restricted range of variables in order to explain the variation in this 'class' of cases rather than a specific case (de Vaus, 2011, pp. 233-235). While recognizing this potential weakness, the aim of this paper should be kept in mind. It is to explain why there are implementation gaps within the EU's environmental policies, which entails that an understanding of this 'class' of cases is pursued rather than a specific understanding of the circumstances producing gaps in a particular MS or policy area. Moreover, issues of meaning can also be circumvented by providing the observed patterns with meaning (de Vaus, 2011, p. 183), which is done in this paper by drawing upon the literature on EU implementation.

It has now been clarified how the logical issue of answering the RQ of this paper is overcome. This is done by obtaining evidence from the MS, each as a case, on their implementation performance and on relevant systematic and quantifiable indicators operationalized on the basis of theoretical assumptions about the dynamics of implementation. The observed differences between the cases on these indicators are then analyzed in order to uncover what causes MS to have more implementation gaps. The method which is utilized in analyzing the data is described in detail in chapter. 5.2. The attention is now turned to the study of implementation in the EU.

4.0 Implementation in the EU

This chapter operationalizes the dependent variable of this paper and outlines the theoretical framework utilized in explaining the implementation gaps within the EU's environmental policies. Firstly, it is now defined exactly what implementation entails and how it relates to other similar concepts. Secondly, a description of how an implementation process takes place in the EU is included, which highlights the institutional features of this and where deficits or gaps in implementation can emerge. Thirdly, reflections on how implementation performance can be assessed are included, in this the dependent variable "implementation gaps" is also operationalized. Fourthly, the theoretical developments within EU implementation research are briefly outlined. On this basis the theoretical framework is set out which includes theories relating to willingness and capacity of MS to implement.

4.1 Conceptual Overlap in Implementation Studies

There are three main concepts that are used in relation to the research on implementation in the EU: Implementation, Compliance and Europeanization. Consequently, there is a considerable degree of overlap in the literature on these concepts and in their meaning (Treib, 2014, p. 5; Young, 2015, p. 64). This section clarifies how these terms relate to one another in order to avoid conceptual confusion in this paper.

The term 'implementation' means to give practical effect to and to ensure actual fulfilment by concrete measures (Sverdrup, 2007, p. 197). It is the second to last step of the 'policy cycle' which is heuristic tool that divides the policy process into different phases ranging from agenda-setting, policy formulation, policy decision, policy implementation and to feedback (Young, 2015, p. 48). Thus, implementation concerns the translation of policy into action (Treib, 2014, p. 5). In the context of the EU, implementation involves the process through which European norms are transposed, adhered to and enforced at the domestic level (Sverdrup, 2007, p. 197). Implementation gaps arises if there are inadequacies in any of these steps, and these steps are further elaborated below.

The concept of 'Compliance' has mainly been used in International Relation Studies when examining the domestic fulfilment of international agreements. It refers to a state in which there is conformity between an actor's behavior and a specified rule. The focus is therefore on outcome rather than the process of fulfilment, since compliance only concerns whether the behavior conforms to the rule or norm at hand. This also entails that compliance can occur without implementation in instances where the behavior already conforms to the required action. However, implementation does not necessarily result in compliance as it can cause behavior that contradicts or does not lead to the intended objectives. Nevertheless, these concepts are closely

related and compliance as well as implementation research often considers both process and outcome. (Treib, 2014, p. 5)

Lastly, the notion of 'Europeanization' points to the effects of European Integration on the MS. As pointed out above, there is a considerable degree of overlap in the literature on this and implementation while important analytical differences remain. Implementation is one important mechanism of Europeanization, since the implementation of EU legislation usually entails certain policy or institutional changes at the domestic level. However, Europeanization is not confined in all its uses to processes of policy transfer and the institutional adaptation associated with these. (Treib, 2014, p. 5) The research agenda of Europeanization not only considers the impact on policy but also polity and politics of European Integration (Ladrech, 2010, p. 23). Furthermore, conceptualizations of Europeanization also include circular definitions, in which the interaction between the EU and national level is considered (Saurugger, 2014, p. 125).

In summary, it is clear that these concepts are closely related, whereby there is considerable overlap in the theories applied in their study. The theoretical and methodological developments within EU implementation studies is further considered below. But first, the institutional framework for implementation in the EU is described in order to provide an understanding of the process these notions seek to conceptualize.

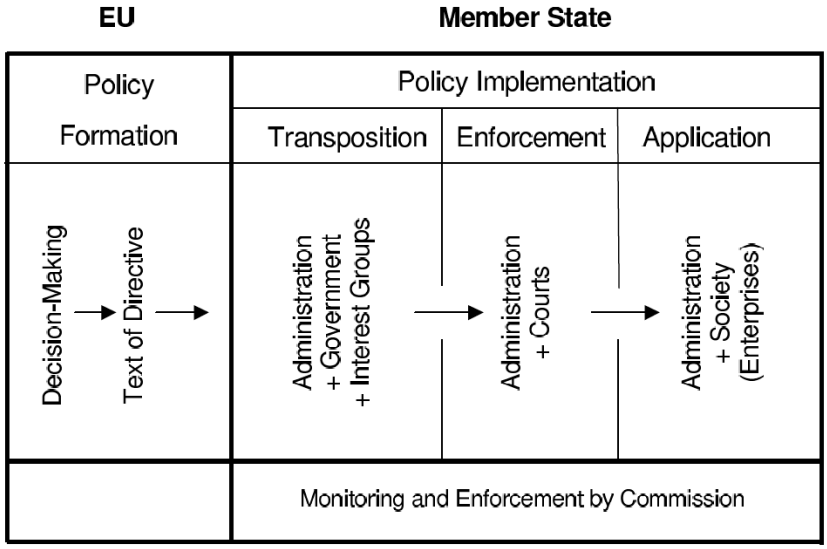
4.2 How are Policies Implemented in the EU?

The EU is characterized by a highly decentralized implementation structure where the EU, in the absence of its own administrative capabilities, has to rely on the MS' administrations to implement policies (Treib, 2014, p. 6). This obligation for the MS is set out in article 4(3) in the Treaty of the European Union, in which it is stated that member states are responsible for the implementation of EU laws within their own legal systems (Knill & Tosun, 2013, pp. 311-312). This obligation to implement can be divided into three dimensions: formal transposition, enforcement and application (Knill & Tosun, 2013, p. 312; Treib, 2014, p. 6). The formal transposition phase includes the incorporation of EU law into the national legal order, which has to fulfill three requirements: timeliness, conformity and correctness. Timeliness denotes that the MS has to comply with the deadlines in the relevant EU legal act. The next condition, conformity, entails that the member states have to apply the law in accordance with the objectives of the legal act. Lastly, correctness of transposition is related to whether the correct integration into the national legal framework has taken place. (Knill & Tosun, 2013, p. 312)

After the formal transposition has taken place, the policies can be practically enforced by national authorities or legal systems and be applied by relevant actors at the national level, which also can be labelled the practical transposition of EU laws (Knill & Tosun, 2013, p. 312; Treib, 2014, p. 6).

The sequencing of these three phases is illustrated in figure 4.1 in which the relation to policy-making is also included.

Figure 4.1 – Policy Implementation in the EU



(Adopted from Treib, 2014, p. 6)

Implementation gaps in the EU can thus originate at different points in this process. The first point where gaps can emerge is in relation to the formal transposition, which have to fulfill the requirements described above. The second point at which gaps can arise, is in practical transposition including the enforcement and application of EU laws. Consequently, the implementation gaps can consist of three dimensions: 1. The non-communication of transposition measures in member states, 2. The incorrect or incomplete transposition and 3. the incorrect application of community law. Dimension 1 and 2 are results of gaps in formal transposition while dimension 3 relates to the gaps in practical transposition. (Knill & Liefferink, 2007, pp. 148-149) The table below outlines the focus of the EC and the indicators used when assessing whether there are deficits in the implementation of a policy in the formal or practical transposition.

Table 4.1 – Investigative Criteria for the Introduction of Infringement Proceedings

	Focus	Indicators
Formal Transposition	Legal and administrative provisions for the transposition of European law	- Timeliness - Conformity - Correctness
Practical Transposition	Inclusion into national regulation practice	- Enforcement Capacity - Compliance of addressees

(Own illustration based on Knill & Liefferink, 2007, p. 149)

If the EC concludes that a MS does not implement a certain policy satisfyingly, it can initiate infringement proceedings in which the ultimate consequence is fines being imposed by the Court of Justice of the European Union (CJEU). While the EC has the possibility of initiating formal infringement proceedings, various informal steps are usually taken first. This is done in order to compel the MS to voluntarily rectify the implementation gap. Initially, the relevant competent national authority is contacted by the EC in order to identify ways to overcome the issue. If this is unsuccessful, the EC sends an article 258 letter to the MS which summarizes the situation and asks for further clarification. If the infringement is not resolved by this step, the EC issues a reasoned opinion which explains why it thinks that the MS in breach of community law. Only finally, if the issue is not resolved by now, an infringement proceeding is submitted to the CJEU, which then rules whether the MS has infringed on a legal obligation. Therefore, issues in implementation are usually resolved without submitting the case to the CJEU and until 2013 the CJEU only imposed fines in three instances. (Jordan & Tosun, 2013, p. 251; Knill & Tosun, 2013, p. 313)

The EC has differentiated possibilities of detection implementation gaps in formal transposition or practical transposition due to the decentralized implementation structure. Whereas the EC can scrutinize national legislation with a view to detect gaps in transposition, it is much more difficult to detect gaps in enforcement and application. This is due to the limitations in the EC's direct powers of inquiry, which are limited to seeking information from member states, Moreover, the EC has limited administrative resources. Therefore, the EC mainly relies on the information provided to it by the MS and by private actors in order to detect gaps in enforcement and application. (Jordan & Tosun, 2013, p. 250-251) The issues of detecting implementation gaps are further complicated by other factors that originate from the EU's institutional framework. Firstly, in a large and complex polity like the EU, with a high number of veto players, policies often contain unclear compromises in order to facilitate an agreement among the actors. As a consequence of this, it can be troublesome to verify whether a policy has the desired outcome or is implemented satisfyingly. Secondly, EU legislation often leaves the final decision on some issues to be taken at the national level in order to accommodate regional and local differences in line with the principle of subsidiarity. This point is especially relevant for EU directives which often only defines objectives that have to be transposed into national law leaving decisions on concrete implementation measures to be taken at the national level. (Jordan & Tosun, 2013, pp. 257-258; Treib, 2014, p. 5) This contributes to the relevance of studying the implementation gaps within the EU's Environmental policies, which partly consists of number of directives, as important decisions that determine the success or failure of these policies might be taken at this point. Therefore, it is essential to understand what conditions that prevent efficient implementation at the national level. The EU's institutional framework for the implementation of directives is similar to that used when implementing international agreements. These too have to be ratified at the national level in order to take effect. (Treib, 2014, p. 5-6) However, there are also important differences. The EC is responsible for monitoring that the correct implementation is taking place including transposition, enforcement and application. This is usually not the case for international law,

which does not have the same degree of legal obligation and actual enforceability. Therefore, the EU's institutional framework for the implementation of directives combines practices known from traditional domestic law and international law. (Knill & Tosun, 2013, pp. 312-313; Treib, 2014, pp. 5-6)

The characteristics outlined above have led scholars to the conclusion that implementation within the EU should not be characterized as a top-down process in which EU level requirements are imposed and enforced at the national level. The implementation process is instead defined as a recursive and dialectic bargaining process among the relevant actors. (Jordan & Tosun, 2013, p. 251; Knill & Tosun, 2013, p. 313-314). Hence, the EU is not relying on an impositional policy style but a consensual one, which is:

"(…) *based on complex interactions between public and private actors and organizations at the national, regional, and local level with potentially diverging interests, beliefs, and perceptions with regard to the underlying policy problem. In this context, bargaining also implies that during the implementation phase, initial policy objectives might undergo significant modifications, both as a result of learning processes and strategic interaction between the involved actors."* (Knill & Tosun, 2013, pp. 313-314).

Thus, the implementation process is really a political bargaining process, where the interaction among the involved actors determine the outcome. The EIR could potentially be interpreted as a step taken by the EC in these bargaining processes. It illustrates that instead of the EC using the infringement procedures to exercise top-down influence, it uses a tools like the EIR in order to facilitate political dialogue about gaps in implementation and address these.

The features of implementation in the EU have now been outlined, which combines elements from domestic and international law with a consensual policy style in a highly decentralized implementation structure.

4.3 Implementation Performance – How Are Implementation Gaps Gauged?

The implementation structure in the EU as well as the criteria that the EC uses when evaluating implementation are described above. However, this does not answer the question fully of how to measure if a certain policy is implemented successfully or not in quantitative studies. This section therefore clarifies how the dependent variable is measured in this paper. The research perspective and analytical focus is crucial to consider in order to clarify how implementation gaps are gauged and the gaps are understood. Therefore, different ways of operationalizing implementation performance are now introduced.

The first dimension that needs to be considered when assessing implementation performance is the distinction between policy output and policy outcome. If the focus is on policy output, the effective implementation is evaluated upon whether the legal transposition and practical application correspond to the objectives defined in the relevant policy. However, it is not considered if the objectives of a given policy are actually achieved. This is the focus if implementation is evaluated based on the outcome. Thus, the evaluation of implementation based on outcome is substantially more ambitious than simply assessing it upon the output of the domestic implementation process. (Knill & Liefferink, 2007, pp. 151-152)

The second dimension on which to gauge implementation effectiveness refers to the different research perspectives on the implementation process. If a 'top-down' approach is taken, the successfulness of implementation is evaluated based upon a comparison between the intended and actually achieved targets. Approaching implementation through a 'bottom-up' conception is primarily focused on process. This means that effective implementation is not measured by the fulfilment of certain objectives. Instead it is evaluated according to whether the perceived outcomes correspond with the preferences of the actors involved in the implementation process. Indicators of this could be the extent to which a certain policy allowed learning and capacity building in a way consistent with the preferences of the involved actors. (Knill & Liefferink, 2007, pp. 152-154)

On this basis, four different approach to assessing implementation performance can be constructed, which are depicted in figure 4.2.

Figure 4.2 – Approaches to Measuring Implementation Performance

		Analytical Focus	
Research Perspective		Output	Outcome
	Target-oriented	1	2
	Process-oriented	3	4

(Adopted from Knill & Liefferink, 2007, p. 152)

Usually most studies that attempt to asses EU implementation performance adopt a target-oriented perspective by comparing policy objectives and policy outputs when evaluating implementation gaps (box 1). Although it can be argued that this is a somewhat limited understanding of implementation, it has some analytical advantages. Firstly, it allows for the comparison of the formal and practical implementation of widely different policies in relation to their achievement of policy goals, if this is the interest. Secondly, if the focus is on outcome (boxes

2 and 4) instead of output, there are certain ambiguities in whether the observed outcome actually is caused by the policy in question. This is due to the link between policy and effect often being obscure and modified by socio-economic complexities. In relation to box 3 and 4 with the process-oriented focus on either output or outcome, some issues can also be highlighted. In employing such a perspective there is a lack of baseline for assessing whether the results of implementation indeed are in line with objectives – how is learning and capacity building measured? Moreover, this can also be connected with casual ambiguities, as it can be troublesome to establish whether such processes were indeed caused by the original EU policies or by other factors. (Knill & Liefferink, 2007, pp. 154-155)

Considering these different approaches to evaluating implementation performance, it is necessary to clarify what the notion of 'implementation gap' entail in this paper. This paper relies on the conclusions of the EIR in assessing implementation performance, and it is now considered whether the EIR is concerned with either output or outcome and if the approach is process or target oriented. In relation the EC's approach to identifying implementation gaps in the EIR, the factors highlighted by the EC are introduced in figure 4.3.

Figure 4.3 – The Objectives of the EIR

- *Provide an informed and synthetic picture of where each Member State stands as regards the main environmental implementation gaps, based on the same set of benchmarks which reflect the existing, agreed policy objectives and key obligations defined by the EU environmental legislation.*
- *Create the opportunity for a structured dialogue with each Member States on the achievements and challenges in tackling the implementation gaps and about the actions needed.*
- *Provide early and tailored support to Member States in streamlining their efforts to implement EU environmental acquis and policies based on the findings of the reports.*
- *Strengthen the EU's compliance culture in the area of environmental policies and provide an informed basis for political debates and deliberations between the EU institutions about the horizontal challenges, opportunities and possible solutions aimed at further narrowing the implementation gaps; identify and share best practices and common problems and make best use of the experience accumulated across the EU, as well as engaging with the whole range of stakeholders in actions to address the implementation gaps.*
- *Provide aggregated feedback to the Commission about the way in which the EU's environmental policies and legislation work and deliver the expected results.*

(European Commission, 2017a)

Considering the approach outlined by the EC, the implementation gaps are identified by comparing the obligations set out in the environmental policies with MS' fulfilment of these, which is line with a top-down perspective. However, the performance in achieving the obligations can be measured by both the output or the outcome as pointed out above. When scrutinizing the individual country reports (European Commission, 2017e), it is clear that the EC uses both output and outcome indicators. For instance, within the specific analysis of the effectiveness of municipal waste management policies, the EC uses the following indicators throughout all countries: "*The progress towards reaching recycling targets and the adoption of adequate WMP/WPP17[1] should be the key items to measure the performance of Member States (…)* ." (European Commission, 2017f, p. 7) This is interesting since the EC not only analyses implementation by looking at output, which is done by including the WMP/WPP, but also focuses on the progress, namely the outcome, towards the legally binding recycling targets.

Thus, the EIR represents a combined indicator of implementation performance and does not only rely on solely output or outcome evaluation, but combines elements of both. This strengthens the validity since it helps in overcoming the methodological weaknesses related to either focus on output (too limited scope) or outcome (casual ambiguities).

Pondering the EC's approach to assessing implementation performance (figure 4.3), it is seemingly also concerned with the 'process', which typifies the 'bottom-up' approach. This is indicated, for instance, by the focus on spreading 'best practice' and by the aim of creating dialogues with each MS in order to provide 'tailored' support for implementation. Thus, it is clear that the focus is not only to assess fulfilment of certain intended objectives but also to encourage learning and build implementation capacity in the MS. The aim of creating dialogue is also in line with the bottom-up approach since it indicates that the preferences of the various stakeholders are taken into account when evaluating implementation. Another reflection is that EIR supports the arguments made about the EU being characterized by a consensual policy style. The EIR is oriented towards implementation process and the conclusions will be used, by the EC, as the basis for future interaction with relevant stakeholders which is characteristic of the consensual style.

It has now been clarified how implementation performance is gauged in the EIR and before a quantitative indicator is operationalized on the basis of these conclusions, two of the conventional indicators of implementation performance are introduced. This is done in order to highlight the usefulness of the EIR indicator and to clarify why these conventional indicators have been excluded.

[1] Waste Management Plans/Waste Prevention Programmes

4.3.1 – Conventional Measures of Implementation Performance

Conventionally, quantitative measures of implementation gaps have been based on information gathered from data on transposition or infringement proceedings. However, this data is connected with a number issues in measurement validity which are now discussed. When relying on transposition data, in its various forms, as a measure of implementation performance Oliver Treib points out:

"*No matter what specification of the dependent variable is chosen, however, all of these operationalisations on the basis of notification data fail to grasp the completeness and substantive correctness of transposition. In other words, what these studies analyse is the temporal reaction of member states to EU directives rather than compliance.*" (Treib, 2014, p. 18)

So, transposition data does not clarify whether the directives that are transposed into national law are actually compliant with the objectives stated. In other words, this data does not indicate whether the policy output is correct, but merely that it has been produced. Moreover, it does not consider the outcome of the policies adopted. As such it is a poor indicator for assessing whether there are gaps in policy outputs or outcomes.

When using 'Infringement proceedings' as an indicator of performance, the data is derived from official information on these proceedings. It has an advantage over transposition data since it can actually provide information on whether transposition is incorrect or insufficient. However, using this measure is also connected with a number of weaknesses. Firstly, as it has already been pointed out, the EC has limited capabilities in detecting the correctness of transposition by which many cases might slip past its attention. As a consequence of this, the number of infringement proceedings might not be a good expression for the true size of the implementation deficit within a policy area. Secondly, the EC's enforcement of policy is not neutral. Directives which were more aligned with the EC's preferences during decision-making have been shown to result in less infringements whereas directives conflicting with the EC's preferences result in more. Moreover, the salience and the probability of success when initiating an infringement proceeding have been demonstrated to influence whether the EC takes action against MS. Thus, infringement proceedings are not an unbiased indicator of implementation performance, but rather the gaps the EC was able to detect and willing to enforce. (Mastenbroek, 2005, pp. 1114-1115; Treib, 2014, pp. 17-20) Consequently, Treib concludes that: "*(…) the different types of quantitative data used to measure transposition performance are all fraught with major problems of validity, which suggests scholars using this data should be very careful about what it is they are actually analysing (…)"* and furthermore that: "*Quantitative scholars could also invest more energy in finding better data sources on compliance, especially on the completeness and substantive correctness of transposition.*" (Treib, 2014, p. 19).

This is exactly what will be done below, when the EIR is operationalized as a quantitative indicator of implementation performance. Furthermore, Ellen Mastenbroek and Treib highlights that there has been a particular lack of focus on the measurement of implementation performance in relation to enforcement and application (Mastenbroek, 2005, pp. 1112-1115; Treib, 2014, pp. 19-20). It has been discussed above, how the conclusions of the EIR are also derived from evaluations of outcome, which are better expression of enforcement and application. Thus, it can perhaps include these dimensions to a larger degree than the traditional measurements of implementation performance.

Keeping these critiques in mind, the indicator for implementation performance derived from the conclusions of the EIR is now presented. Furthermore, reflections on the strengthens of this indicator vis-à-vis the ones discussed here are included. Lastly, potential issues of validity connected with the operationalization of the EIR as an indicator are included.

4.3.2 – A New Approach: Measuring Implementation Performance through the EIR

Based on the detailed analysis of the implementation performance of each MS in the individual country reports of the EIR, the EC makes a number of suggested actions for every MS. These are summarized in an annex to the EIR (European Commission, 2017e). It is now argued that number of suggested actions for each MS, is a useful indicator for the implementation performance of that given MS. In this way, it is possible to get a quantifiable expression of implementation performance for every MS of the EU 28 based on the same systematic benchmarks utilized by the EC in the EIR.

The EIR evaluates the implementation of EU environmental policy within the areas of: Circular Economy and Waste management, Nature and biodiversity, Air quality and noise and Water quality and management. In all of these areas implementation gaps were found by the EC. Furthermore, the EC also assess the 'enabling tools' applied by the MS which includes 'Market-based instruments and investments' and 'Effective governance and capacity to implement rules'. Based on this the EC underlines:

"*The Member States are responsible for closing the implementation gaps and the Commission will support and accompany these endeavours. The table in the Annex brings together all actions the Commission suggests to the Member States in the country reports to improve the delivery of EU environmental policy and legislation. In the country reports these suggestions have been put in their wider context and, where needed, explained*." (European Commission, 2017c, pp. 13-14)

Thus, from these suggested actions a valid expression of the implementation performance for each MS can be derived as every action is a response to a 'gap' identified in implementation. As

discussed above these gaps can be on evaluations of output as well as outcome and the assessment is both target and process oriented. In figure 4.4, the policy areas for which the EC proposes action are visible and the maximum number of potential gaps are indicated.

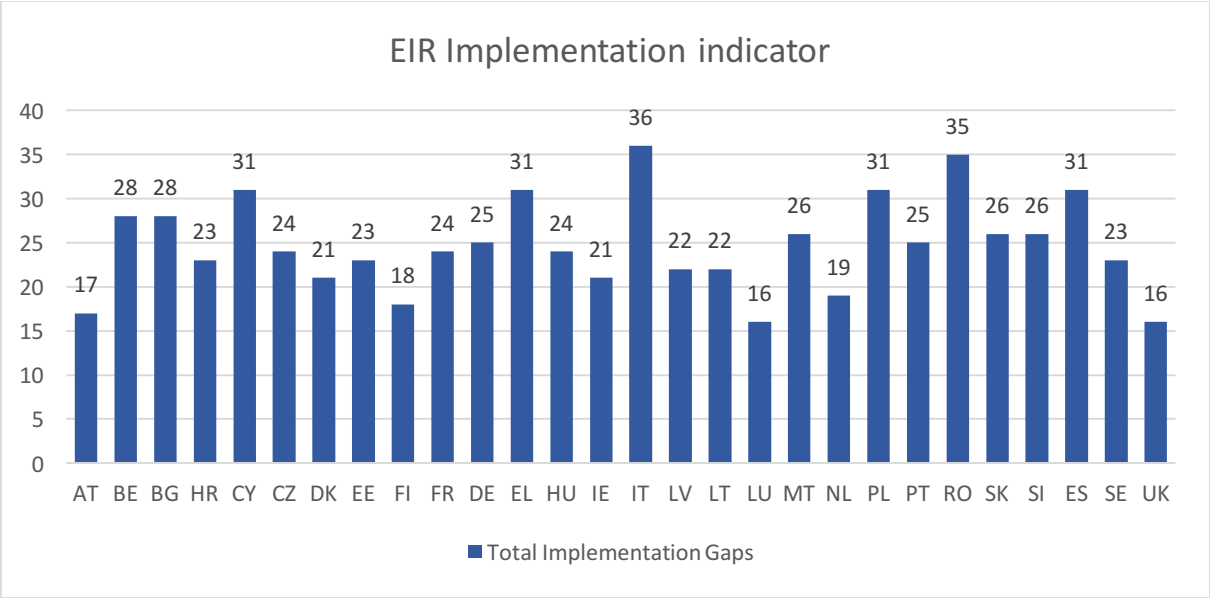
Figure 4.4 – Policy Areas for which suggested actions are included in EIR (maximum number of potential actions for each MS)

- *Developing a circular economy and improving resource efficiency (max 6 actions)*
- *Waste management (max 10 actions)*
- *Nature and Biodiversity & Estimating Natural Capital (max 13 actions)*
- *Marine protection (max 6 actions)*
- *Air quality (max 7 actions)*
- *Noise (max 2 actions)*
- *Water quality and management (max 10 actions)*
- *International agreements (max 1 action)*
- *Effective governance within central, regional and local government & Coordination and Integration (max 18 actions)*
- *Compliance assurance (max 4 actions)*
- *Public participation and access to justice (max 2 actions)*
- *Access to Information, knowledge and evidence (max 2 actions)*

(European Commission, 2017g, pp. 2-7)

The content of the suggested actions is available in annex one of this paper, which can be helpful in clarifying what gaps the specific actions are in response to. The area of "Effective governance within central, regional and local government & Coordination and Integration" have been excluded from the indicator. This area is of wider horizontal relevance and is not an indicator of gaps within the implementation of environmental policies as such. It should also be noted that the EC did not propose actions for PL under "Marine Protection", as PL failed to fulfill its reporting obligations under the Marine Strategy Framework Directive (European Commission, 2017g, p. 4). It is therefore assumed that PL has failed to deliver on all the objectives of this directive, whereby PL has been assigned the maximum of 6 gaps implementation gaps within this area. Having established this, the number of actions suggested for each MS have been counted by which an indicator for environmental policy implementation performance in the EU has been created (Figure 4.5).

Figure 4.5 – Environmental Policy Implementation Performance, EU28



Examining the variation in gaps indicated by this variable, IT has the most (36 gaps) whereas the UK and LU have the fewest (16 gaps). A summary of some the characteristics of this data are visible in table 4.2 in the interest of transparency.

Table 4.2 – Summary of the EIR Implementation Performance Indicator

Measure	Value
Min	0
Max	63
Low	16
High	36
Median	24
Mean	24,71
Mode	31

Concluding on the evidence presented, a systematic quantifiable indicator for implementation performance within the EU's environmental policies has been developed on the basis of the implementations gaps identified in the EIR. Before turning the attention to the factors included in explaining the variation in the number of implementation gaps, some reflections on the quality of this indicator are now included.

In comparison to the conventional indicators, transposition and infringement data, utilized in quantitative research of implementation performance, this indicator has a number of advantages. As pointed out above, these indicators are connected with several issues of validity. Comparing the EIR data to the transposition data, it has the advantage that it is based on whether the MS are complying with EU requirements rather than just transposing requirements in a timely manner.

Moreover, the EIR conclusions also include the 'timeliness' dimension as this is also considered by the EC when identifying gaps, e.g. the timely adoption of adequate WMP highlighted above. In relation to infringement data the EIR indicator also has advantages. It can be argued that the EIR is a better indicator due to the consensual policy style of the EU. This entails that the EC is reluctant to exercise top-down influence through infringements but instead uses instruments like the EIR when gaps have been identified. Thus, the EIR is a better reflection of the actual implementation deficit. The infringement data only represent the gaps which the EC were willing to initiate infringements on. Hence, the EIR as an indicator of implementation performance can potentially address some of the weaknesses of the conventional indicators. Yet, this indicator also has some weaknesses which are now discussed.

The EIR indicator only assess the implementation of environmental policies, which makes it a highly valid indicator for the purpose of this paper. However, it is not applicable in research aimed at other policy areas which is the case for infringement and transposition data. This indicator can therefore not be used systematically across all EU policy areas, like it is the case for the conventional ones. Although this limits the relevance, it should improve the validity of the EIR conclusions, since it is an initiative specifically aimed at identifying environmental policy implementation gaps.

Considering validity, rather than relevance, some of the issues highlighted in relation to the conventional indicators might also be relevant for the EIR indicator. The EIR is also likely to be affected by the limited capabilities of the EC. Thereby the precision of the conclusions might vary across MS and in the various phases of implementation. Moreover, as the EIR is produced by the EC, it is not an unbiased indicator. This means that the same factors which influence the EC's willingness to open infringements may also very well influence the EIR conclusions. For instance, the EC could identify more gaps in policies which conflicted with the its preferences during decision-making. It is not the aim of this paper to analyze this, although it is recognized that it might influence the reliability of the conclusions. Another issue of measurement validity relates to whether all the suggested actions are expressions of gaps in implementation. It is possible that some of the MS might dispute the conclusions. This would likely also be the case whenever the EC initiates infringements. As such, the validity of any measure of implementation performance could be disputed to some extent. Lastly, it might be discussed if all the suggested actions can be conceptualized as gaps in implementation. Instead some might be steps that could be taken in order to improve performance even when EU requirements have been fulfilled. However, it is beyond the scope of this paper to discuss each individual action, as it would require a deep analysis of the policy in question, like the one conducted by the EC in the EIR.

The dependent variable has now been operationalized, and reflections on its strengths and potential weaknesses have been introduced. The focus is now turned to the factors included in order to explain the gaps in implementation.

4.4 Explaining the Implementation Dynamics – Between Capacity and Willingness

In this section, the development of EU implementation studies and the core questions within this field are reviewed. This is done in order to clarify the reflections that have led to the inclusion of particular theories in this paper. On the basis of this review, it is acknowledged that in order to explain variation in implementation performance, it is necessary to include factors that relate to the capacity and willingness of MS to implement EU policies. Accordingly, theories relating to both of these dimensions are presented from which hypotheses are derived.

4.4.1 - The Development of EU Implementation Research

The literature on EU implementation suffers from a lack cumulativeness (Treib, 2008, pp. 16-19), which perhaps could be ascribed to the conceptual overlap described above. Nevertheless, the literature can be divided into four periods with each of their methodological and theoretical developments. Before these are reviewed, the core 'research questions' that have structured the inquiries on EU implementation are outlined.

There are four different sets of core research questions/areas within EU implementation studies. The first relates to the relevance of studying implementation – *why study implementation?* – where three main motives can be identified, which now are briefly outlined as they illustrate the wider relevance of this paper. Studying implementation helps in determining the extent to which European Integration affects and transforms MS, it helps in assessing how well the EU is currently functioning and the politics of implementation is an important indicator for evaluating the balance of power between the different levels of governance in Europe. (Sverdrup, 2007, p. 199) The remaining central research areas relates to: (1) the implementation performance in the EU, (2) the dynamics of implementation in the EU and (3) the outcome of implementation (Sverdrup, 2007, pp. 198-207) The EIR is concerned with the implementation performance in the EU, since it clarifies to what degree policy instruments really are being employed and what effect these have. Thus, it also covers the third research dimension of implementation studies to a certain extent which relates to whether the EU's policies have the intended effect (Sverdrup, 2007, p. 205). The various issues when gauging implementation performance have already been discussed as well as how the EIR allows for this paper to take a new approach, which is why the attention is now turned to the second research area. This paper is mainly concerned with the second research dimension, implementation dynamics, which are questions that relates to the dynamics, actors and factors that facilitates or hinder implementation (Sverdrup, 2007, p. 203). E.g. what can explain the variation in implementation performance uncovered by the EIR. In order to answer this, it is necessary to examine the literature on EU implementation.

The literature on EU implementation had its beginnings in the 1980s, and its development since then can be divided into four periods that are differentiated by different theoretical and methodological approaches (Mastenbroek, 2005, pp. 1104-1108; Treib, 2014, p. 31).

The first period of implementation research, regarded implementation as a rather apolitical processes and relied on the theoretical approaches used in domestic implementation studies including the top-down and bottom-up schools. Thus, the explanations in this wave of implementation studies were mostly based on institutional efficiency, like administrative capacity or the characteristics of national legal systems, in order to explain deficits in implementation. (Mastenbroek, 2005, p. 1108; Treib, 2008, pp. 7-8) The second period of implementation research was marked by the Europeanization turn, where the focus is on the impacts of European integration on the domestic level. The main focus of explanatory frameworks utilized in this wave is on the compatibility between EU and national structures. This is labelled the 'goodness-of-fit' hypothesis in which it is assumed that the degree of fit or misfit between EU norms and the national ones influences the implementation process. (Mastenbroek, 2005, pp. 1109-1110; Treib, 2008, pp. 8-10)

The third period of EU implementation research has a greater differentiation in the methods and theories applied. Methodologically, both qualitative and quantitative studies are used in this wave, however, there has especially been an increase in quantitative studies focused on the formal transposition. The political character of transposition is acknowledged in these studies, and the explanations applied are focusing on the actor constellations involved in the process. The focus of this period within EU implementation studies has been overwhelmingly on the formal transposition phase of implementation, while there has been a reduced focus on enforcement and application. This might have been caused by the quantitative bias, since there is a lack of appropriate quantitative data for studying enforcement and application. Nevertheless, some studies have analyzed these phases and explanations used are mainly based on institutional and governance approaches, which have been developed in context of domestic implementation studies. (Knill, 2013, pp. 314-316; Mastenbroek, 2005, pp. 1109-1110; Treib, 2014, pp. 10-13)

The fourth wave of EU implementation research continues the division between methods which signified the third wave. The scholars applying qualitative methods have started addressing the MS' reactions to the CJEU's preliminary rulings by examining the effect of these on member state implementation. Quantitative research has continued its focus on the transposition of directives, and theoretical developments now include the impact of the structure of EU decision-making on domestic transposition. (Treib, 2014, p. 13-15)

Concluding on these developments, the literature on EU implementation is characterized by a great diversity of approaches theoretically and methodologically. Moreover, there has also been substantial progress in explaining specific developments in EU implementation. However, there is

also a lack cumulativeness in the field in relation to theoretical developments, which has hampered progress. This is especially relevant in regards to studies of enforcement and application, whose progress has been prevented by this as well as the primacy of quantitative studies. (Mastenbroek, 2005, pp. 1115-1116; Treib, 2008, pp. 16-19). However, based on the developments of implementation research outlined, a consensus has emerged. When explaining implementation gaps, both member state willingness and capacity to comply have to be taken into account (Treib, 2014, p. 1). In order words, implementation gaps are not expected to be the result solely of strategic calculations of non-implementation nor do gaps only result from lack of capabilities. Rather gaps arise from mix of these factors. Consequently, theories accounting for both of these aspects are included, and this paper will draw upon the cumulative theoretical developments within the field. In doing so there is a risk of inconsistency between the various theories included. If any such issues arise, these will be addressed explicitly. Furthermore, factors relating both to the EU level dynamics as well as national level dynamics influencing implementation are included.

4.4.2 Member State Capacity

Actors should not only be willing but also be capable of abiding by the EU law. This depends on the capacity to make the necessary adjustments in a swift efficient manner on the domestic level. However, 'capacity' is not used uniformly in the literature on implementation, and it is possible to distinguish between a resource centered and institutionally centered approach to this concept (Börzel et.al., 2010, p. 1369; Mbaye, 2001, pp. 261-262). Treib similarly points out that the two main findings in the literature on EU implementation is that MS capacity is effected by the number of veto players and administrative capabilities (Treib, 2014, p. 25). The former is an expression of institutional capacity whereas the latter relates to resource capacity. Both of these capacities for implementation are considered in this paper. Resource capacity is first introduced after which institutional capacity is considered.

Resource Capacity

Administrative capabilities have been identified in the literature as an important factor influencing EU implementation performance. It is now elaborated how and why this factor influences the implementation performance. Administrative capabilities involve three aspects: 1. Administrative capacity or efficiency, 2. Administrative experience and 3. Effective administrative organization and co-ordination. (Treib, 2014, p. 26) The first dimension is now covered in more detail which includes the theoretical assumptions and the hypotheses derived from these. The second and third aspect are not covered as these involve a deeper analysis of the specific administrative structure of any given MS. However, this is partly covered by the Quality of Government concept included below.

Administrative Capacity & Quality of Government

Administrative capacity refers to structural restrictions on the actions of the administration that is implementing EU policies. These structural constraints could take the form of poverty, governmental efficiency and corruption. As a consequence of structural constraints like these conditions are created in which it is problematic to manage implementation. (Mbaye, 2001, p. 261) Administrative capacity refers to: "(*…) the extent to which administrations are able to make choices, have efficient bureaucracies, and have fiscal resources available*" (Mbaye, 2001, p. 261).

The 'fiscal resource' dimension of this definition denotes that governmental resources for policy analysis and decision-making are costly and in short supply. The underlying causal mechanism of this assumption is quite intuitive: More financial resources allows for better implementation of policies due to services and training civil servants costing money. Furthermore, financial resources can be used to acquire the necessary infrastructure that enables a steady flow of information. This is essential in order to hold lower level of hierarchies accountable and monitor the effects of policies. Greater financial resources also permit an administration to provide incentives to increase compliance of addressees. (Hille & Knill, 2006, p. 538) So, as Gerda Falkner et al. clearly states: "*Sufficient financial or personnel resources are crucial for efficient implementation*" (Falkner et al., 2004, s. 461) From these theoretical axioms the following hypothesis is derived:

H1*: The more financial resources that are available to the implementation of environmental policies, the better the implementation performance.*

The other two dimensions included in the definition above refers to 'efficient bureaucracies' and the 'extent to which administrations are able to make choices' which is important as Tanja Börzel et al. points out: "*(…) even if a state has sufficient resources, its administration may still have difficulties in pooling and coordinating them (…)*" (Börzel et al., 2010, p. 1369). Thus, the availability of resources is not a sufficient condition for efficient implementation if these resources are wasted. Thus, this needs to be considered when accounting for implementation performance. Efficiency is determined by the *strength* or *quality* of the bureaucracy, which is compromised by various factors. A concept which captures this is the 'Quality of Government' (QoG), which defined in the following way:

"*The underlying factors that comprise QoG in a general sense are an un-corrupted public sector, a strong and impartial rule of law or protection of property rights, and government bureaucratic effectiveness in impartially administrating public goods and services.*" (Charron, Dijkstra, & Lapuente, 2015)

This concept captures several of the dimensions that are typically used in order to assess the efficiency of the bureaucracy like autonomy, accountability and clearly stated legal rules (Hille &

Knill, 2006, p. 539). Advocates for QoG point out that it is meaningful to view QoG as a general feature of countries, rather than to distinguish between the many underlying factors (Charron, Dijkstra, & Lapuente, 2015). For instance, a country might not be corrupt but that does not entail that the rule of law is impartial. Charron et al. describes this in the following way: "*This can be thought of in the sense of what government does—for example, provide impartial services and policies to society as a whole—or what it does not do— for example, engage in corrupt behavior and malfeasance."* (Charron, Dijkstra, & Lapuente, 2015). Thus, QoG is seen a highly suitable concept in order to capture the dimension of state capacity that relates to the *quality* or *efficiency* of the bureaucracy and government more widely. From these theoretical axioms the following hypothesis is derived:

H2: *As Quality of Government increases, the implementation performance increases.*

Reflecting on the concept of QoG, it highlights that while it might be heuristically helpful to distinguish between resource and institutional capacity, these are in reality often closely related. As it will be clarified below, institutional capacity relates to the informal and formal institutions of a MS which, for instance, influences the strength of the rule of law. This is also a dimensions considered in QoG and it could therefore be argued that it should be included as an institutional capacity as well. Nevertheless, it is included under resource capacity since the effectiveness of the bureaucracy is central to the concept. The interconnectedness between resource and institutional capacity is discussed further in chapter 7.0. Having outlined the expectations in relation to the influence of resources on the capacity of MS to implement environmental policies, the attention is now turned to the institutional capacities for implementation.

Institutional Capacity

Implementation problems can be conceptualized as problems of institutional change. This denotes that differences in institutional arrangements will have implications for the ability of the MS to cope with EU requirements and implement these effectively. (Knill & Liefferink, 2007, p. 173; Knill & Tosun, 2013, p. 316) Although the importance of domestic institutional arrangements is widely recognized, different expectations about the implications of certain institutional arrangements can be found in the literature (Hille & Knill, 2006, p. 536; Lampinen & Uusikylä, 1998). Consequently, this section clarifies what institutional arrangements of the MS that are taken into account in this paper, as well as the expected implications for implementation that are derived from these.

The domestic institutional arrangements that are seen as relevant in relation to implementation, is contingent upon the approach taken within institutionalism. The various approaches to political institutions differ in terms of how they understand the nature of institutions, the processes that translate structures and rules into actor behavior and the process which translate actor behavior into rules and organized practices that establish, sustain, transform or eliminate institutions

(March & Olsen, 2005, p. 4). For instance, different theoretical expectations can be derived from from Rational Choice Institutionalism (RCI) and Sociological Institutionalism (SI) (Börzel & Risse, 2000, p. 6). Approaching implementation through RCI entails that 'veto points' and 'supporting formal institutions' are seen as important whereas SI would emphasize factors like 'norm entrepreneurs' and 'cooperative informal institutions' (Börzel & Risse, 2000, pp. 6-10). However, it is beyond the scope of this paper to present a comprehensive account of the institutional capacity of each MS for implementation including all these parameters. Like highlighted above, Treib points out that previous research has indicated that veto-points are important to implementation performance which is why this paper predominantly will focus on the effect of these. It also has to be underlined that availability of suitable indicators for institutional arrangements has influenced what factors that are included. For instance, although 'norm entrepreneurs' might be important, it can be troublesome to identify these especially as they probably vary across the environmental policy areas. Having established this, the attention is now turned to how 'veto points' are included.

The logic behind the veto point argument is that, the more domestic actors that have to agree to implementation measures, the worse the implementation performance of that given MS (Treib, 2014, p. 25). Therefore, MS whose domestic institutional arrangements include a higher number of veto points might experience more issues when implementing policies compared to political systems with fewer institutional veto-points. One way of approaching the degree to which domestic political systems include veto-points is through Multi-Level Governance (MLG).

Multi-Level Governance

Andrew Jordan & Camille Adelle argues, based upon their analysis of EU environmental policy-making, that within the environmental policy area the EU is best understood as system of MLG (Adelle & Jordan, 2013, pp. 374-375). Therefore, it is relevant to consider what implications that this structure has for implementation. The MLG model asserts that decision-making competences are decentralized and shared between multiple actors operating at the supranational, national and subnational level. The subnational level includes the regional and local governments within national states. (Mbaye, 2001, p. 264) Higher degrees of MLG can lead to implementation deficits as it increases the number of links in implementation and increases the number of veto-players. When more layers of governance are involved the implementation chain of causality becomes longer and more complex, which means that the coordination needed in order to ensure good implementation performance is more difficult to achieve. Moreover, since systems of MLG are characterized by a high degree of power dispersion among the actors, it gets more difficult to achieve willing coalitions that will allow domestic change. (Milio, 2014, pp. 10-16) This is also acknowledged by Lisebet Hooghe and Gary Marks, who contend that: "*The chief benefit of multi-level governance lies in its scale flexibility. Its chief cost lies in the transaction costs of coordinating multiple jurisdictions*" (Hooghe & Marks, 2003, p. 239). This coordination is key in EU

implementation, as polices that are decided on an EU level are implemented at the national and sub-national level. For instance, directives firstly have to be transposed timely and correctly on the national level after which these have to be enforced in compliance with stated objectives. This can possibly involve national as well as subnational actors depending on the degree to which competences are distributed. From these theoretical arguments the following hypothesis is set out:

H3: *MS that are characterized by a high degree of MLG have a worse implementation performance.*

Following the theoretical arguments presented above, implementation gaps would seemingly be an inherent feature of a MLG system in an almost deterministic manner. Yet, it has to be underlined that this is not the case. Firstly, the degree to which a system is characterized by multiple levels can be differentiated, as the hypothesis above also suggest. Secondly, the political willingness for change of the actors occupying the various position in the MLG system also has to be considered. This is done below in relation to factors of MS willingness. Simona Milio points out based on her analysis of MLG as a system for the implementation of structural funds that: "*(…) MLG provides a framework for policy-making and policy implementation and can deliver great results. However, it requires that all the actors involved at different levels possess adequate capacity to administer the policy"* (Milio, 2014, p. 177). It could accordingly also be reasonable to expect that states marked by greater degrees of MLG have better implementation performance, by which the hypothesis set out above should be reversed. However, as Milio underlines, the efficiency of MLG as system for implementation is contingent upon sufficient capacity on all levels. Therefore, resource capacity is likely an important intervening variable for the impact of higher degrees of MLG on the implementation performance of MS. This again highlights the interrelation between resource and institutional capacity discussed above.

The attention is now turned to other institutional features of domestic political systems which are included in order to capture institutional capacity.

Veto-Player Theory

George Tseblis' veto-player theory builds upon institutional assumptions by considering the impact of various domestic institutional configurations, like presidential or parliamentary systems and whether the system is unicameral or bicameral. Furthermore, he argues that the number and constellations of veto-players should be taken into account when explaining political change. (Tsebelis, 2002, pp. 17-18) This means that not only institutional factors should be included but the current political conditions need to be accounted for as well. Consequently, the policy stability increases with the number of veto-players allowed by institutional arrangements but also by the constellations of actors created by the preferences of veto-players. In relation to the preferences

of actors the congruence of these is important - If there are large differences in in policy positions, the less likely is policy change. Moreover, the internal cohesion of collective players, like parties, is relevant as it influences how easily a common position can be reached. If there is internal division and low congruence of preferences it will be more difficult to achieve change. (Hille & Knill, 2006, pp. 537-538; Tsebelis, 2002, pp. 17-18) Based on these theoretical arguments it is thus expected that:

H4: *The fewer political constraints from veto-players in a MS, the better the implementation performance.*

Thus, the likelihood of achieving the changes in status-quo that will permit efficient implementation is shaped by the number of veto-players that the institutional and partisan arrangements in a given MS permits. Furthermore, it needs to be considered how the preferences of the veto-players are aligned and to what degree these are characterized by internal cohesion. In order to capture this, Witold Henisz's Polcon iii index will be used, which estimates the feasibility of policy change in a country in a given year. This indicator is constructed in accordance with Tsebelis theoretical arguments as pointed out by Henisz, and includes factors such as the number of independent branches of government that posses institutional veto power over policy changes in a country (Henisz W. J., 2002, p. 363). This indicator is discussed in more detail under the operationalization of the hypotheses below.

Summarizing the hypotheses included, institutional capacity is primarily captured in the dimension, which relates to the formal institutional arrangements. These can result in more veto points which actors can take advantage of in order to prevent the needed change for implementation. Mariyana Angelova et al. concludes based upon an analysis of 37 compliance studies that decreasing 'institutional decision-making capacity' (a concept that includes federalism, number of veto-players and degree of centralization) is a robust explanation for implementation performance in the EU (Angelova, Dannwolf, & König, 2012). The theories included above includes similar factors, and should allow this paper to test whether these also are significant explanations in the context of this paper.

Informal institutional arrangements are not covered to a great extent by the factors included above. Contributing to this, is the lack of fitting indicators for the informal institutions that influence implementation performance. It is highlighted by March and Olsen that political actors are constituted by their interests as well as by the rules embedded in their identity (March & Olsen, 1998, p. 952). Accordingly, it is recognized that this a weakness in the explanatory framework of this paper. For instance, even if the number of veto-players are high, as a result of formal institutions, change might be facilitated by cooperative informal norms that helps to overcome deadlocks by enabling consensus. However, informal institutions facilitating

implementation are covered to some extent as the norms of respect for the rule of law are included below.

Another reflection is that it might be troublesome to easily distinguish between factors that relate to willingness and capacity of MS. Risto Lampinen & Petri Uusikylä points out that interest group structure can fall into both categories. It is a part of the institutional decision-making structure of a MS but also contains behavioral elements as different groups exercise agency affecting willigness. (Lampinen & Uusikylä, 1998, p. 238) The attention is now turned to the factors included in order gauge the impact of willingness on implementation performance.

4.4.3 Member State Willingness

Whether MS are willing to implement EU policies is affected by EU-level factors and domestic-level factors. The EU-level explanations are related to factors such as MS opposition to a proposal during negotiations in the Council, the level of conflict during decision-making, the decision-making rule and the power of the MS governments at the EU level. At the domestic level four main factors impacting MS willingness to implement policies have been found: party politics, misfit, public opinion, and interest groups. (Treib, 2014, pp. 20-22) It is beyond the scope of this paper account for all these factors. Therefore, the factors included are now described in greater detail including their theoretical basis and the expectations for implementation performance derived from these.

EU Level Dynamics

This paper excludes EU level dynamics affecting MS willingness to implement and this section briefly clarifies the reasoning underlying this. Considering the factors highlighted above some of these are more feasible and relevant to include than others. For instance, the opposition during negotiations, the level of conflict during decision-making as well the decision-making rule can all be argued to be policy specific factors. In other words, these would be more relevant to include if the interest was in gaps within a specific environmental policy, since conflict in decision-making on water policy would not impact the implementation of waste policies. Moreover, it would not be feasible to asses the level of opposition by each MS to every policy included in the EIR.

MS power is relevant across all the policy areas included in the EIR, and it might be relevant in the decision-making as well as implementation stage for willingness. However, it is unclear what the direction of influence from power is on implementation performance. Powerful MS may be more capable of bearing the costs of non-compliance due to their political and economic weight whereas less powerful MS are more sensitive to the material and reputational costs (Börzel et al., 2010, p. 1368; Mbaye, 2001, pp. 262-263). Following these assumptions, it would be expected that more powerful MS have a worse implementation performance. Yet, it can also be contended that

the political and economic weight of an MS is closely related to its ability to bend the political outputs according to its preferences (Hille & Knill, 2006, p. 1368; Mbaye, 2001, pp. 262-263). MS explicitly seeking to shape policies in order to minimize future implementation costs has likewise been documented by circular Europeanization research (Saurugger, 2014, p. 125). Thus, it could be expected that more powerful MS will be more willing implementers, due to their capabilities of bending the political outputs, minimizing the costs of implementation. It is obvious that conflicting expectations about the effect on implementation performance can be derived from theories about the influence of power, by which it is troublesome to untangle these complex causal mechanisms in this paper. It is even more difficult when considering that other factors have been identified as significant in effecting the policy outputs of the EU. For instance, partisan patterns, interests and culture have all been highlighted in the literature on decision-making in the Council as influencing the policy outputs (Tallberg & Johansson, 2008, p. 1224). Moreover, different modes of decision-making have been identified, so the policy outputs might also be influenced by whether the actors are engaging in a process of bargaining, cooperative exchange, deliberation or are guided by norms when making policy decision (Warntjen, 2010, pp. 666-671). The relevance of power can consequently be called into question in the highly institutionalized context of the EU.

Moreover, operationalizing good indicators for the effect of power is also connected with several challenges contributing the exclusion of this. For instance, GDP is a commonly used proxy for economic power (Börzel et al., 2010, s. 1375) but the validity of this indicator can easily be challenged. It ignores factors like the composition of the economy, technology or human capital, which are important components of economic power (Treverton & Jones, 2005, p. 5). Political Power can be even more challanging to gauge where power indices, like the 'Shapley Shubik Index' (SSI), are commonly used as a measure in research trying assess the effect of political power on implementation (Börzel et al., 2010, p. 1375; Börzel, Hofmann, & Panke, 2012, s. 463; Spendzharova & Versluis, 2013, p. 1506). Such measures are based on mathematical theories of games to which a number of critiques can be made. This is also acknowledged by Lloyd Shapley and Martin Shubik, the creaters of the SSI, who point out that the power indice produced using the index does not take into account any of the sociological or political super structures that exist in the context of decision-making (Shapley & Shubik, 1954, p. 791). This echoes some of the points made above, where it is emphasized that power is not the only determinant of policy outputs in the EU. In a similar critique Stefanie Bailer points out: "*Voting power indices are subject to strong criticism for not taking factors such as agenda-setting rights and preferences of bargaining parties into account (…).In light of this, I consider voting power to be a useful analytical tool, but one that needs to be enriched with additional information."* (Bailer, 2010, p. 745) This paper subscribes to this view, however, it is beyond the scope to include such additional information. Lastly, it is worth pointing out that Aneta Spendzharova & Esther Versluis have examined the effect of power on MS transposition outputs within the field of environmental policy and did not find a significant effects (Spendzharova & Versluis, 2013, p. 1511).

Seen in the light of these insights, this paper excludes the influence of EU level dynamics on willingness to implement from the theoretical framework. Instead the emphasis on the domestic factors influencing MS willingness, which the attention is now turned to.

Domestic Level Dynamics

The domestic level dynamics included are related to public opinion, the domestic salience of environmental issues and the respect for the rule of law. The effect of party politics is also partly covered by salience which is clarified below. However, misfit and interest groups are not included as explanations, and it is now briefly clarified why.

Misfit refers to a situation in which there is incompatibility between the EU and domestic policies, processes and institutions. This entails that actors will resist changes in pre-existing policy legacies which result in implementation problems. (Börzel & Risse, 2000, pp. 5-6; Ladrech, 2010, pp. 32-33) Including these mechanisms into the analytical framework of this paper would require an analysis of the fit between EU and domestic norms for every MS for all the policies included in the EIR. Treib highlights that quantitative studies have had issues in finding suitable indicators for the 'goodness of fit', which have caused discrepancies between the concept and the indicators utilized in order to capture it (Treib, 2014, p. 24). Moreover, Treib points out that 'goodness of fit' has been found to have limited explanatory power for implementation performance (Treib, 2014, p. 9). Robert Ladrech similarly underlines that 'misfit' present the condition in which specific changes may take place, but does not determine the degree of change (Ladrech, 2010, p. 33). Accordingly, the misfit proposition is not included in this model, as it represents a condition for change but does not determine it.

In the relation to interest groups, the feasibility of including theories accounting for the effect of these is negatively affected by the fact that the relevant interest groups are likely to vary across different policies. Moreover, the attitudes of interests groups are likely to depend on the policy area at hand and it might even vary across individual policies. Thus, it is troublesome to find appropriate indicators in order to measure influence of the groups within quantitative research. As a consequence of this, quantitative research has mostly relied on structural indicators of state-society relations like corporatism or pluralism indices. Treib problematize that there is not a clear theoretically founded arguments for the effects of these structures, and furthermore these tend vary across sectors as well. (Treib, 2014, p. 25) On the basis of these deliberations, the effects of interest group actions have also been excluded from the theoretical framework.

These factors may still be relevant for variations in implementation performance but other factors are seen as more appropriate to include in the context of this paper. Having acknowledged this, the attention is now turned to public opinion and salience.

Public Opinion and Salience

Public Opinion is included as it is a contextual variable that influences the cooperative conditions during the process of implementing EU policies in MS (Lampinen & Uusikylä, 1998, p. 239). According to Treib, the findings in relation to effects of public opinion have been ambiguous, but policy specific effects of public opinion on implementation have been found within the field of environmental policies (Treib, 2014, p. 25). Thus, this variable is included in two dimensions: (1) The general attitude towards EU integration in the MS and (2) the specific salience of environmental issues in the MS. The underlying theoretical assumptions about the importance of public opinion are now introduced from which hypotheses are derived.

In relation to the general attitude towards EU integration, Lampinen and Uusikylä points out: "*Since politicians often make policy choices that promote their re-election, it can be assumed that the lower the overall mass support for the country's membership in the EU, the higher the probability that a member state will face difficulties in implementing European policies.*" (Lampinen & Uusikylä, 1998, p. 239). As such it is clear that if the general attitude towards the EU in a country is negative, the requirements of implementing EU policies would be viewed as illegitimate. Thus, politicians might be unwilling to carry out these unpopular policies, since it would not promote re-election. From this the the following hypothesis is derived:

H5: *The higher the overall support for the country's EU membership, the better its performance in implementing European Environmental policies.*

While policymakers might be forced to implement EU policies which goes against the domestic preferences the opposite could also be the case. Therefore, it is now argued that the salience of environmental issues can constitute an important factor.

Policymakers in all parts of the policy process operate under constraints, like limited time, which means that all policy items can't receive the attention they ideally deserve. As a consequence, policymakers tend to focus on a smaller subset of items which are of high salience. Salience refers to the relative importance attached to an issue in relation to other issues. The importance of salience has been analyzed most extensively at the agenda-setting stage of the policy-process where it influences which items that are maintained on the agenda. However, high salience may also be argued to influence implementation. (Spendzharova & Versluis, 2013, pp. 1499-1503)

Firstly, in salient policy areas voters are more likely to scrutinize the actions of policymakers. As policymakers are expected to take public opinion into account, it is assumed that this will promote implementation performance. If popular opinion supports action in an area, it will put pressure on policymakers to ensure that something is actually being done about it, which will influence the

agenda but also implementation. (Spendzharova & Versluis, 2013, p. 1504) From these theoretical expectations the following hypothesis is derived:

H6: *MS where environmental policies are of high salience in popular opinion will have better implementation performance.*

Secondly, it is not only in public opinion that salience is important, as it also influences the position of political parties and the actions of policymakers and governments in power. Thus, political parties in government that attach high salience to environmental policies may scrutinize EU environmental requirements more closely in order to ensure their effective implementation. On the other hand, political parties in government who attaches relatively low salience to environmental issues might try to delay or hamper the implementation EU environmental policies. (Spendzharova & Versluis, 2013, pp. 1503-1504) On this basis the following hypothesis is set out:

H7: *The more salient environmental issues are for a government in a MS, the better the implementation performance.*

In summary, it is expected that countries in which environmental issues are of higher salience will be more efficient in implementing the EU's environmental policies. This is due to the increased attention these gain from the general public as well as the decision-makers, which facilities more efficient implementation.

Respect for the Rule of Law

According to sociological institutionalism, actors are embedded in sets of informal and formal enduring institutions which shape their preferences and identities. In other words, preferences and identities are not exogenously given but are endogenous to a given social context. (Berglund, Gange, & Van Waarden, 2006, s. 699; Pollack, 2015, p. 21) This dynamic is theorized by 'the logic of appropriateness', which denotes that agency is guided by collectively shared understandings of what constitutes proper or socially accepted behavior in a certain institutional context. Thus, this logic is based on the following of rules that are derived from the membership of a political community and the ethos, practices and expectations of its institutions. It also entails that these rules are usually not called into question, but are followed as natural where the members of the political community are expected to obey and be the guardians of its constitutive institutions. (March & Olsen, 2005, p. 8) Accordingly, the willingness of actors to implement EU policies is contingent upon what actions that are legitimate in a particular institutional context.

Based upon the assumptions outlined, a factor which can impact the implementation performance of MS is the "*domestic culture of law-abidingness*" or in other words "*the respect for the rule of law*" (Berglund, Gange, & Van Waarden, 2006, p. 701; Börzel et al., 2010, p. 1370). This denotes

that the respect for formal legal rules is a norm which actors follow according the logic of appropriateness. MS whose domestic culture encourages the following of formal legal rules would therefore have a better implementation performance. However, the strength of this norm may vary across the different MS. This means that in some states, actors will consider it their obligation to abide by the law and implement policies efficiently. Hence, even costly rules will be implemented efficiently as the willingness to implement is not motivated by utility maximizing actions. Yet, in other states which lack this culture of law-abidingness, the actors might not be inclined to implement policies through a logic of appropriate action. (Berglund, Gange, & Van Waarden, 2006, p. 701) Following these assertions, it is expected that:

H8: *The stronger the respect for the rule of law in a Member state, the better the implementation performance.*

In relation to willingness of actors to implement shaped by logic of appropriate action, the support for the EU as a rule-setting institutions could also be relevant. According to this view, rules are complied with not just because they ought to be obeyed but also because these are set by institutions that enjoy a high degree of support. (Börzel et al., 2010, s. 1371) Therefore, it is expected that MS will implement policies more efficiently if the EU enjoys a high degree of public support. However, this is already covered by hypothesis eight by which an additional hypothesis is not set out.

The theories incorporated in order to explain the implementation gaps within the EU's environmental policies have now been outlined, including the hypotheses derived from these. The indicators used in order to capture the concepts which have been explained are now presented.

5.0 Method

Quantitative data and methods are used in this paper in order to answer the research question at hand. This chapter describes the method utilized and discusses potential issues in terms of reliability and validity. Firstly, the focus is on the operationalization of the various concepts introduced above. The MS distribution on the operationalized indicators is included in the interest of transparency. Next, the statistical method applied in analyzing the data is discussed.

5.1 Operationalization

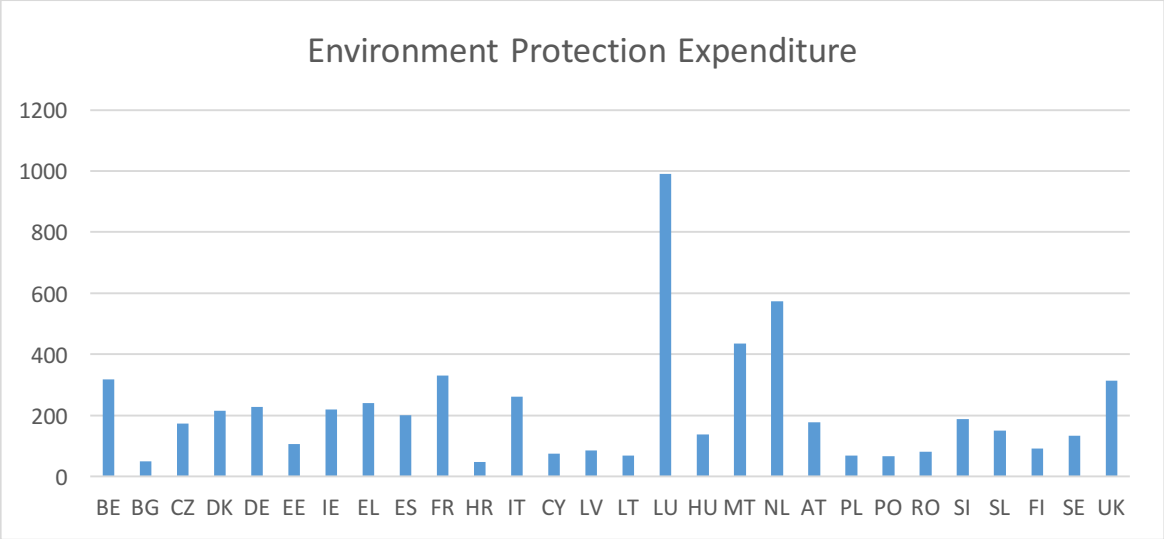
This section operationalizes the independent variables used in the analysis. The dependent variable and its operationalization has already been discussed extensively above. However, this section first introduces some considerations that should be made when attempting to find indicators for theoretical concepts. These considerations also apply to the operationalization of the dependent variable made above.

The various theoretical concepts introduced above are, in their nature, not directly observable. Thus, it is necessary to move from the nominal definitions of concepts to operational definitions on a lower level of abstraction. (de Vaus, 2011, p. 24-25) The challenge of making this movement is contingent upon the complexity of the theoretical concepts, by which some operationalization are more demanding. It is essential to reflect upon the quality of indicators, as this will have critical implications for the conclusions. In other words, if indicators do not tap into the mechanism set out in the theories outlined, the conclusions can easily be challenged (de Vaus, 2011, p. 27). In order to capture some concepts empirically, more than one indicator may be required due the varying complexity of these and some containing sub-dimensions. E.g. QoG is a concept made up by several factors where suitable indicators need to be found in order to capture these. Accordingly, this chapter will progress by operationalizing the concepts included in the hypotheses above, in the order these were introduced.

In order to capture underlying *H1* the total expenditure by MS Government on environmental protection in million € in 2015 (Eurostat code: gov_10a_exp) is used as an indicator (Eurostat, 2017a). This Eurostat data follows the methods and definitions developed in the 'Classification of the Functions of Government (COFOG)'. Government in this context denotes: "*The general government sector (…) consists of institutional units which are non-market producers whose output is intended for individual and collective consumption, and are financed by compulsory payments made by units belonging to other sectors, and institutional units principally engaged in the redistribution of national income and wealth.*" (Eurostat, 2017a). Environment expenditure is defined by the expenditure of such units on: waste management, waste water management, pollution abatement, protection of biodiversity and landscape, R&D environmental protection and environmental protection n.e.c. (Eurostat, 2017a). 'Environment protection n.e.c' includes spending which does not belong to either of the other categories. 2015 is used as the reference

year as it the latest year in which there is data available for most countries. In relation to the data, it can be pointed out that the expenditure by HR, ES and SK is based on provisional data which effects the validity. (Eurostat, 2017a) In order to remove the influence of absolute size of population, the expenditure per capita is calculated based on the population of the MS in 2015 (Eurostat code: demo_gind) (Eurostat, 2017b). The expenditure per capita on environmental protection in € for the EU28 is visible in figure 5.1.

Figure 5.1 – 2015Government Expenditure per capita on Environmental Protection in €, EU28



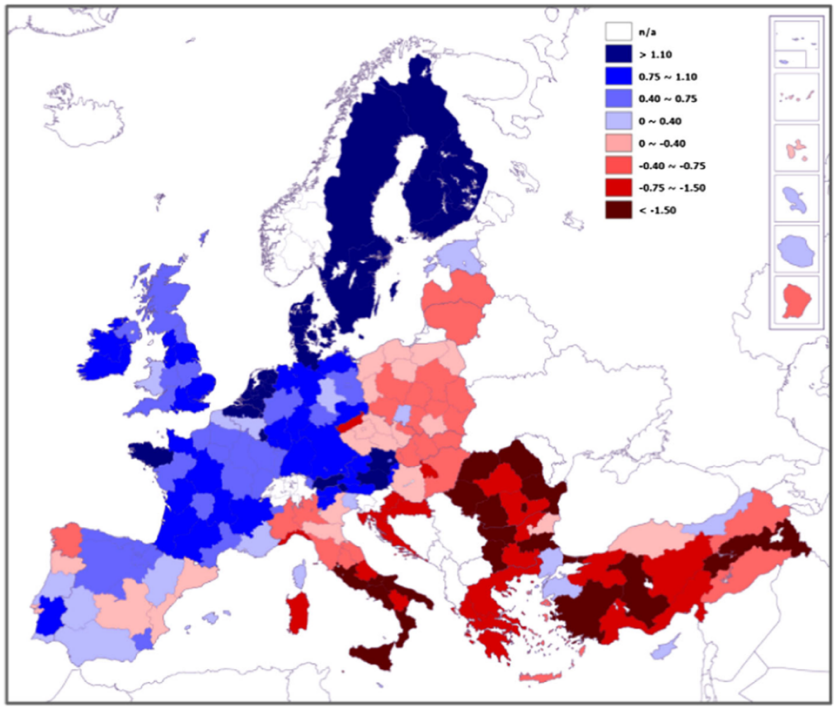
(Own calculation based on Eurostat, 2017a & Eurostat, 2017b)

The expenditure is not estimated in a standardized measure that eliminates price differences between countries which has negative implications for the cross-national comparability of this data. Nevertheless, this should provide a good quality indicator as it taps directly into the underlying mechanism of the hypothesis relating to the financial resources available for the implementation of environmental polices. Reflecting on the validity of this indicator, it could be highlighted that government spending on environment protection is not the only source of financial resources. In countries where private or other actors spend more financial resources on environmental protection, it might also facilitate improved implementation. This is not captured by this indicator. However, a more suitable indicator has not been identified for this purpose.

The concept which is to be captured in *H2* is the QoG. In order to measure this the "European Quality of Government Index" (EQI) developed by Nicholas Charron, Lewis Dijkstra and Victor Lapuente is included. The data of the index is based on survey data answered by 85.000 citizen respondents in 2013, which is the largest largest sub-nationally-focused survey on QoG to that data (Charron, 2013, p. 2). The data is collected with the aim of creating a comparable metric for the QoG that can used to compare differences within or across European Countries. Therefore, data has been collected from 206 sub-national units. (Charron, Dijkstra, & Lapuente, 2015, s. 4-6)

The survey focuses on three key concepts within QoG: " *(…) the quality of the services themselves, the extent to which they are administered with impartiality, and the extent to which corruption exists in their area*." (Charron, Dijkstra, & Lapuente, 2015, p. 8). These areas are captured by 16 survey questions which are aggregated into three pillar capturing respectively: quality, impartiality and corruption. This paper uses the national average scores which are calculated by aggregation of the regional scores on these parameters by regional population weight. For a more detailed description of the methods used in this index see Charron, Dijkstra, & Lapuente (2015). The data is standardized with a mean of zero where higher scores imply higher QoG. In figure 5.1 the national and regional differences of QoG are visible.

Figure 5.2 – Scores on the EQI

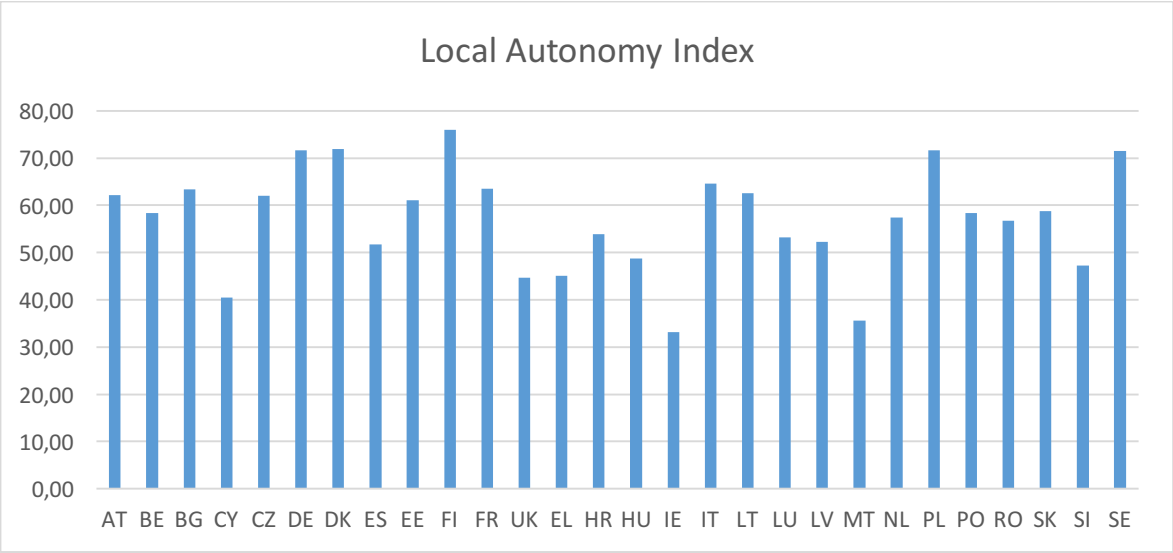


(Adopted from Charron, Dijkstra, & Lapuente, 2015)

In this figure the regions shaded in blue are above the sample mean whereas the regions shaded in red are below. Darker colors suggest regions are towards the extreme ends of the data range. In terms of the validity and reliability of this data an extensive discussion can be found in Charron, Dijkstra, & Lapuente (2015), where it is concluded: "*We find that the results are highly robust and that the underlying individual indicators correlate strongly to one another, which is what we would expect based on the fact that they are all contributing to a shared, broad concept (QoG).*" (Charron, Dijkstra, & Lapuente, 2015, p. 14). Thus, the EQI is seen as a highly suitable indicator in order to capture the underlying concept of QoG. A potential weakness is that the indicator is not specifically aimed at measuring QoG in the provision of environmental protection. However, such an indicator with that exact purpose has not been uncovered, and moreover QoG is of wider horizontal relevance.

In order to capture the concept of MLG underlying *H4* the "Local Autonomy Index" (LAI) is utilized. The aim of this index is to create a comparable indicator for local autonomy. This is challenging due diverging definitions of core elements and it is difficult to apply specific concepts to different countries. Considering these challenges this index is build upon a comprehensive methodology in which eleven variables measuring seven dimensions of autonomy are combined into the LAI. Using this methodology, a network of experts on local government asses the autonomy of local government in their respective countries (including 39 are European countries). (European Commission, 2015a) Hence, this index captures the extent to which MS internally are characterized by MLG, since it measures how autonomous the sub-national actors are in every MS. In accordance with the hypothesis it is expected MS whose scores are higher on this index have more gaps in implementation. Elaborating on the 11 variables included in this index these include: institutional depth, policy scope, effective political discretion, fiscal autonomy, financial transfer system, financial self-reliance, borrowing autonomy, organizational autonomy, legal protection, administrative supervision and central or regional access (European Commission, 2015b, p. 5). In relation to these variables it is pointed out by the EC that the inclusion of these follow the methodology of other index with similar purposes, and consistency of the coding have been checked by various statistical means (European Commission, 2015b, p. 5). The variables are transformed into seven dimensions of local autonomy, which are then aggregated into the LAI including weighing of factors, since not all dimensions of local autonomy are of equal importance. The values on the index ranges from 0 to 100 where a high score denotes more autonomy. (European Commission, 2015b, pp. 63-70) The ranking of the EU-28 according to the LAI is visible in figure 5.3.

Figure 5.3 – Local Autonomy Index, EU 28

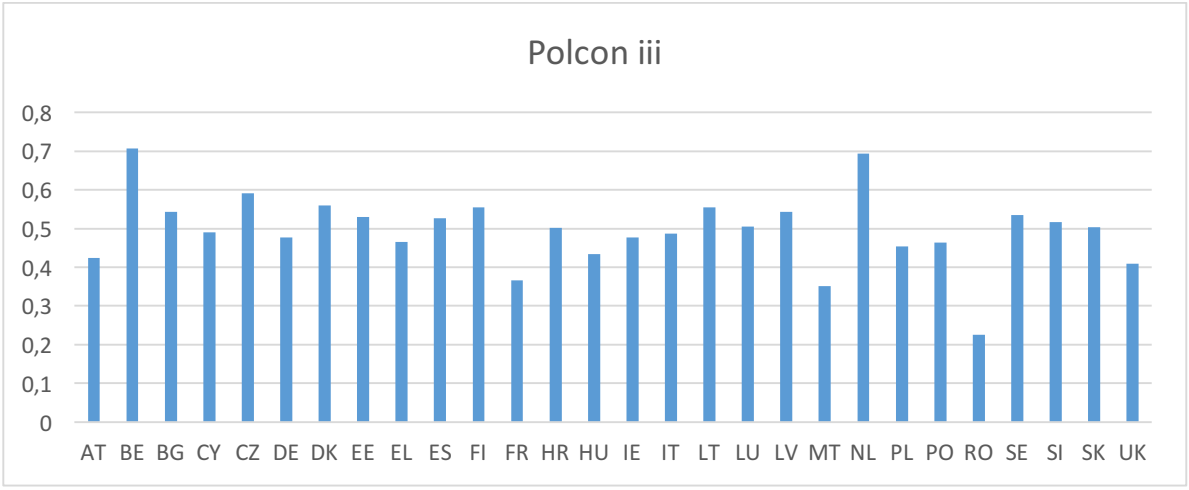


(Own illustration based on European Commission, 2015a)

Reflecting on this indicator it is seen as a reliable indicator, as it is developed on the basis of a transparent methodology that have been checked by various experts within the field of local autonomy. (European Commission, 2015b, p. 11) Accordingly, it is also seen as highly valid in capturing the concept of 'local autonomy'. It does not entail that this captures every dimension of the concept of MLG which is broader in scope. Nonetheless, it is still argued that local autonomy remains an important part of MLG, since it indicates the degree to which power is dispersed between multiple levels of governance domestically.

Moving onto *H4* Witold Henisz's Polcon iii index will be used as an indicator in order to capture how the number and constellations of veto-players in the political system affects implementation performance. Henisz asserts that: "*The measure of political constraints (…) estimates the feasibility of policy change (the extent to which a change in the preferences of any actors may lead to change in government policy) (...)* (Henisz, 2002, p. 363). The methodology used by Henisz to construct this index is now briefly outlined. In order to construct this index, Heinsz identifies the amount of independent branches of government in a country that possess institutional veto power over policy change in a country. Henisz assumes that these branches interact in a uniform and one-dimensional policy space $[0,1]$ and then incorporates the distances between the preferences of the actors and the status quo into the index. In order to do so, data on party alignment and party composition of the executive and legislative branches are included. Moreover, the degree of preference heterogeneity within each of the branches was included. (Henisz, 2002, p. 363) For a more extensive description of how this measure is devised see Henisz (2002) as this is beyond this paper. Using the methodology outlined Henisz calculates the feasibility of policy change for 160 countries. The measures calculated by Henisz for the EU28 are included in this paper in order to test whether MS whose domestic political systems have more political constraints have a worse implementation performance. The latest publication of the Polcon iii index is from 2017, where the political constraints of the EU28 are calculated for 2016, and this is visible in figure 5.3.

Figure 5.4 – Polcon iii Index, EU28



(Own illustration based on Henisz, 2015)

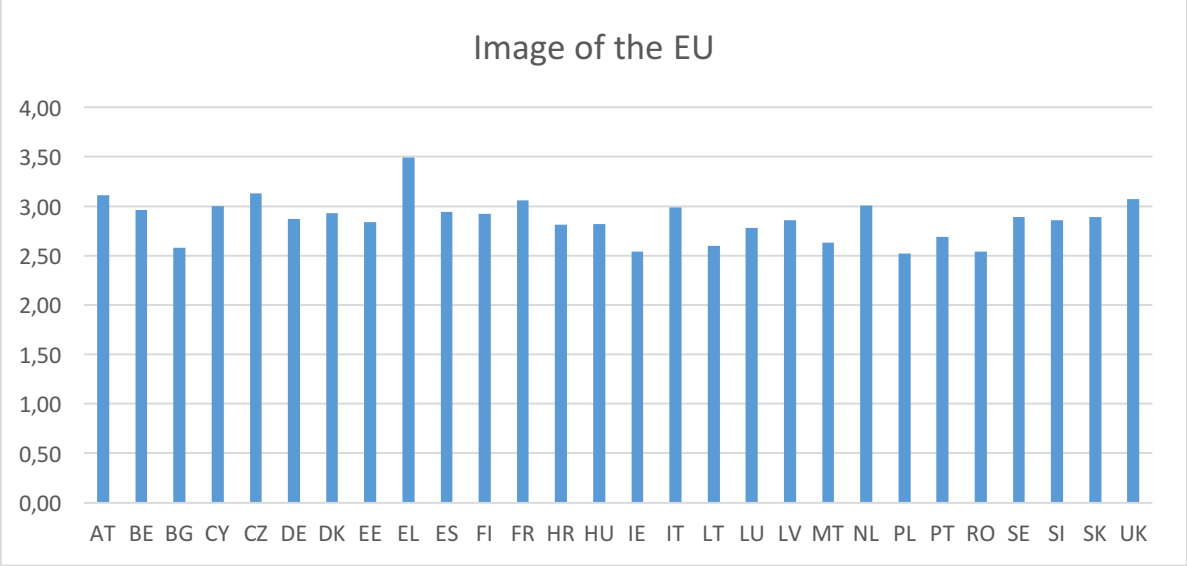
In this index a higher value indicates more political constraints and a lower value entails fewer constraints. Reflecting on this measure, Henisz points to some potential strengths and weakneses himself:

"The *strength of the measure is that it is structurally derived from a simple spatial model of political interaction which incorporates data on the number of independent political institutions with veto power in a given polity and data on the alignment and heterogeneity of the political actors that inhabit those institutions. The first weakness of the measure is that its validity is based upon the validity of the assumptions imposed upon the spatial model in order to generate quantitative results. Another weakness is that many features of interest are left out of the model including agenda setting rights, decision costs, other relevant procedural issues, the political role of the military and/or church, cultural/racial tensions, and other informal institutions which impact economic outcomes*" (Henisz, 2002, p. 384)

An internationally comparable measure of political constraints necessitates that the structures of political systems are simplified in a manner which allows for cross-national comparison, while presevering elements of the structures that have a strong impact on the feasiblity of policy change. This is achieved according to Henisz. However, as the flaws highlighted suggest this has some negative implications for the validity of this measure. If the assumptions underlying the measure are fundamentally flawed, it will never produce meaningfull results when used as an explanatory varible. Acknowleding these weaknesses, the polcon iii index is still seen as a valid indicator for the purpose for which it is used in this paper. Contributing to this is that Hill & Knill have successfully used this index in order to account for weaknesses in EU implementation previously (Hille & Knill, 2006, pp. 545-546). Furthermore, as pointed out above, if a comparable measure for political constraints is to be devised far-reaching assumptions may be necessary. In this regard, it would never be feasible to construct a single measure that accounts for every conciveable institutional factor in any given context.

Turning the attention to *H5,* the indicator used to capture support for EU membership is derived from Eurobarometer 86.2 conducted in November 2016 sampling respondents in every EU28 state. In this survey respodents were asked in qa9: "*In general, does the EU conjure up for you a very positive, fairly positive, neutral, fairly negative or very negative image?*" (1=Very Positive, 2=Fairly Positive, 3 = Neutral, 4 = Fairly Negative, 5 = Very Negative and 6 = Don't know) (European Commission, 2017h). The mean of these values have been estimated, excluding "Don't Know" answers, by which an expression for the average image of the EU is achieved for every MS. Lower scores on this variable entails a more positve image of the EU. The data for the EU 28 on this variable is displayed in figure 5.5.

Figure 5.5 – Mean Image of the EU, EU28



(Own calculations based on European Commission, 2017h)

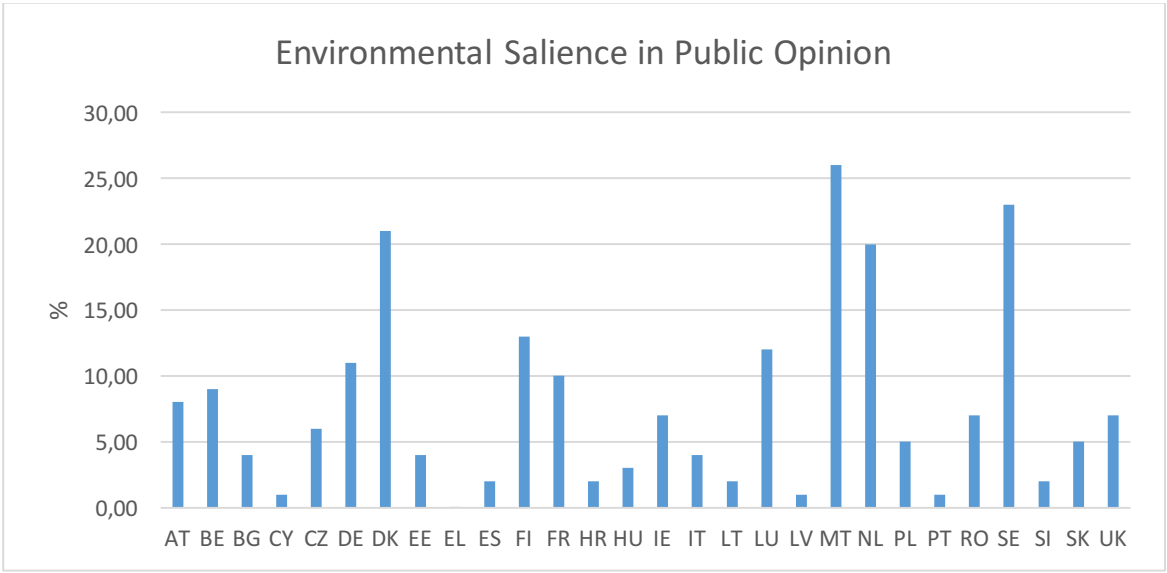
It is recognized that a more negative image of the EU does not entail direct opposition to membership, which affect the validity of this measure negatively. However, respondents in the 86.2 Eurobarometer are not asked directly about whether they support EU membership for their country by which a more direct measure for H5 is not available in this survey. Moreover, a more appropriate measure covering the EU28 has not been identified. Nonetheless, if the EU enjoys a negative image in popular opinion, it is probable that support for membership is lower whereby EU policies are seen as illigetimate and implementation performance would worsen according to theoretical expectations.

In relation to *H6,* the indicator that is used to measure the salience of environmental issues is also derived from Eurobarometer 86.2. In QA3 of this survey respondents are asked:

"*What do you think are the two most important issues facing (OUR COUNTRY) at the moment? (MAXIMUM 2 ANSWERS) - Unemployment, immigration, Economic Sitatuion, Health and social securit, Health and social security, Pensions, Terrorism, Crime, The education system, Government debt, Housing, The environment, climate and energy issues and Taxation"* (European Commission, 2017h).

The percentage of respodents who picked 'The environment, climate and energy issues' as one of their two answers is taken as the expression for the salience of that area in each MS. Thus, it permits to gauge the relative importance of this issue in popular opinion on the national level against the other issues included, making it a suitable indicator for salience. The percentage of respondents ranking environmental issues as salient for the EU28 is displayed in figure 5.6.

Figure 5.6 – The Salience of Environmental Issues in Public Opinion, EU 28

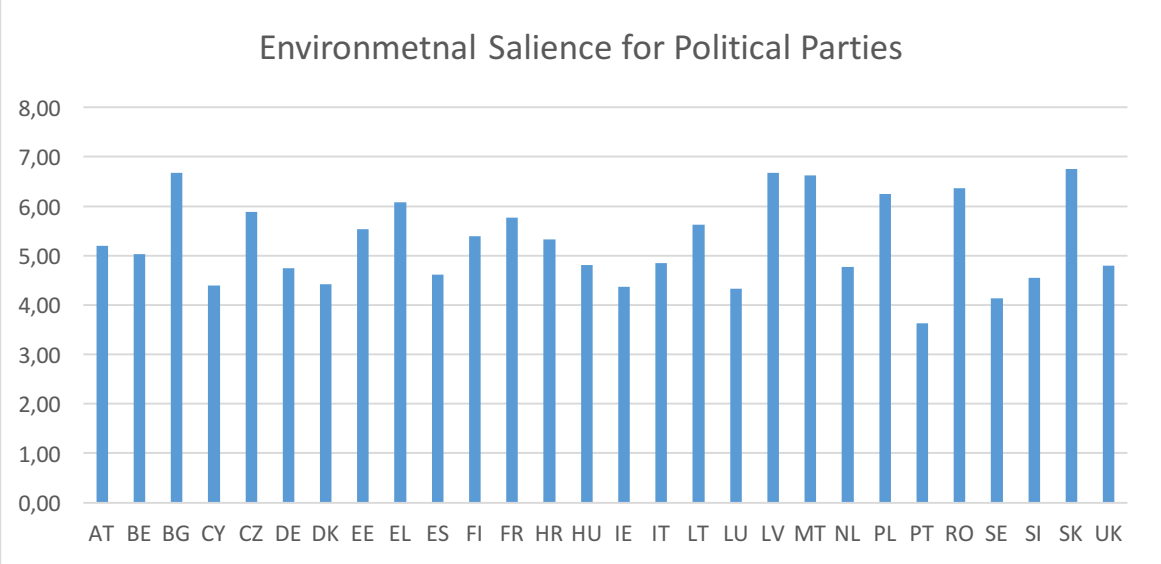


(Own illustration based on European Commission, 2017h)

An issue of validity may arise from the fact that respondents are not only asked about environmental issues in this category but also 'climate and energy issues', which introduces some uncertainty. In other words, it might be unclear whether environment, climate or energy is of the most importance to the respondents who ranks this category as an area of salience. Neverthless, it might be argued that these areas are closely interconnected, which is most likely why these issues are compiled into one category.

In order to uncover the salience of environmental issues for MS governments underlying *H7,* data from the 2014 Chapel Hill Expert Survey (CHES) is used (Bakker, et al., 2015). The CHES 2014 was compiled between December 2014 and Feburary 2015 by surveying 337 experts specializing in political parties and European integration in 31 countries (including every EU28 MS). The survey includes the positioning of 268 political parties on on political ideology, European integration, and policy positions. This data includes the average expert judgement on the position towards the environment for each political party included in these countries. This scales ranges from 0 = Strongly supports environmental protection even at the cost of economic growth to 10 = Strongly supports economic growth even at the cost of environmental protection. (Bakker, et al., 2015) In order to gauge the overall salience of environmental policy in each MS, the mean of the scores of all the included parties in each MS is estimated and used as an indicator in this paper. Thus, MS whose mean is higher suggest that the salience of environmental protection in that country is low whereas a low mean would suggest high salience. The mean salience of environmental issues for political parties in the EU 28 as estimated, is displayed in figure 5.7.

Figure 5.7 – The Mean Salience of Environmental Issues for all Political Parties, EU28



(Own calculations based on Bakker, et al., 2015)

However, this indicator is connected with some issues of validity. Firstly, the experts are only asked to asses the importance of environmental issues vis-à-vis economic growth. This does not provide a comprehensive picture of the salience of environmental policy in relation to every other policy area. Moreover, prioritization of environmental policy is not necessarily opposed to economic growth altough it can probably provide a useful contrast. Secondly, this indicator does not focus exculsively on the parties in Government, but the overall salience of environmental protection for the parties included in any MS. This have negative implications for the valdity since it does not capture salience for government directly. It may be argued that this measure makes the indicator resistant to changing governments or cabinets involving different parties. Lastly, the quality of this measure is dependent on the assessments made by the experts surveyed, which entails that their conclusions on position for any party might be challanged. Recoginizing this, it is beyond the scope to include a critical discussion of these assessments.

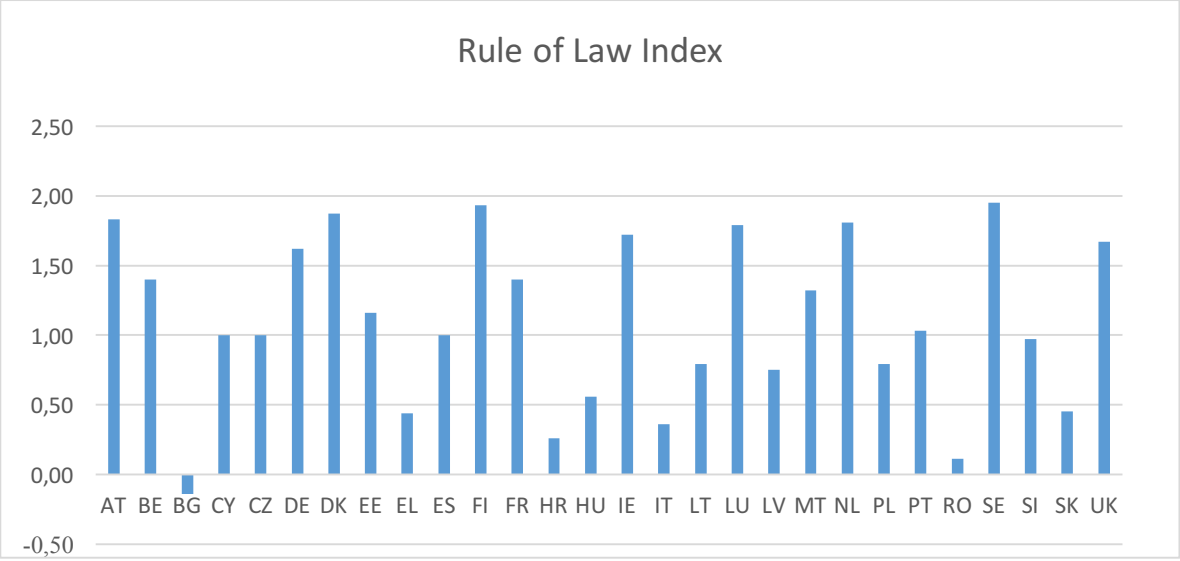
Finally, the indicator used in order gauge *H8* is "4.0.243 wbgi_rle Rule of Law" from the Quality of Government basic dataset which compromises 300 variables from 75 datasources. This data is compiled by the Quality of Government Institute at the University of Gothenburg. This indicator originally has been created by the World Bank as a part of 'The Worldwide Governance Indicators' (Dahlberg et al., 2017). This estimate of the Respect for the Rule of Law Estimate includes:

"*(…) several indicators which measure the extent to which agents have confidence in and abide by the rules of society. These include perceptions of the incidence of crime, the effectiveness and predictability of the judiciary, and the enforceability of contracts. Together, these indicators measure the success of a society in developing an environment in which fair and predictable rules*

form the basis for economic and social interactions and the extent to which property rights are protected." (Dahlberg et al., 2017)

Considering the factors that are taken into account in this measure, it provides a suitable indicator for the respect for the rule of law. This index ranges from -2 (low respect for rule of law) to 2 (strong respect from rule of law). The scores for the EU 28 on this index are displayed in figure 5.8.

Figure 5.8 – Respect for the Rule of Law index, EU28



(Own illustration based on Dahlberg et al., 2017)

Similar indicators have been used previously by other scholars when assessing the impact of the rule of law on implementation performance (Berglund, Gange, & Van Waarden, 2006, p. 704). Thus, MS with higher values on this index are more probable of having a culture in which complying with agreed upon rules takes primacy over any other considerations. Like the other indicators in this section, the validity of this operationalized measure can be deliberated. It might be pointed out, like it is in relation to the Polcon iii indicator operationalized above, that if a cross-national comparable measure for the concept underlying this hypothesis (strong norms law compliance) is to be established some considerable simplifications are needed. Thus, this would be an inherent feature of any such indicator conceived with this purpose.

The indicators included in the analysis and relevant information on measurement of these is summarized in table 5.1.

Table 5.1 – Independent Variables and Measurement

Independent variables	Measurement
Expenditure on Environmental Protection	Expenditure on Environmental protection in million € in 2015 per capita.
Quality of Government	European Quality of Government index (Mean =0, >0 = Higher quality, <0 = Lower Quality)
Multi-level Governance	Local Autonomy Index (Low Autonomy = 0, High Autonomy =100)
Veto-players	Polcon iii Index (Ratio, 1 = Highly Constrained, 0 = No Constrains)
EU membership	MS mean of Eurobarometer 82.2 – QA9 (1 = Positive attitude, 5 = Negative Attitude)
Salience of Environmental Issues in Public Opinion	Eurobarometer 82.2 –QA3 (% of respondents attaching salience to environment issues)
Salience of Environmental Issues for Government	CHES – MS mean of Party Environment Policy Position (0 = High Salience, 10 = Low Salience)
Respect for the Rule of Law	Rule of Law Index, 4.0.243 wbgi_rle Rule of Law (2= Strong Rule of Law, -2 = Weak Rule of Law)

5.2 The 'Language' of Linear Regression and Implementation

This section outlines the statistical method utilized in analyzling the data which is linear regression. This method has a number features, which makes it suitable in analyzing the collected data. After these features have been described, a discussion of whether implementation really fits the 'language' of linear regression is included.

Linear regression using Ordinary Least Squares (OLS) has been chosen as the statistical method of analysis as the variables at hand are quantitative and ratio scaled. By applying this method, it is possible to examine whether there is a significant linear association between the dependent and independent variables. Furthermore, if a significant association is found it is possible to examine strength of this by correlation measures. When applying linear regression as the statistical method, some conditions need to be satisfied which are now briefly outlined. Additionally, the implications of having few cases, like in this paper (n=28), need to be considered as it has implications for the type of regression analysis which is appropriate to perform.

Firstly, turning the attention to preconditions for linear regression analysis, it has to be ensured that the true regression function has the form used in the model – in this case linear. The second condition is that the conditional distribution for the dependent variable (implementation gaps) is

normal and the third condition is called homoscedasticity. Homoscedasticity denotes that the conditional distribution of the dependent variable has constant standard deviations throughout the range of values of the explanatory variables. In practice these conditions are rarely perfectly fulfilled. However, the regression model will remain useful as long as adequate checks have been performed in order to ensure that none of these conditions are grossly violated. (Agresti & Finlay, 2014, pp. 448-449) Accordingly, these conditions have been tested by examining the residuals and plotting the residuals against the explanatory variables (Agresti & Finlay, 2014, pp. 449-451). These diagnostics have revealed some violations of these assumptions and comments are made in the analysis of each hypothesis accordingly. However, some overall points can be highlighted. For instance, one concern relates to the indicator of 'Environmental Expenditure' where the presence of influential outliers distorts the relation, since the exclusion of these cause large changes in the prediction equation. LU and NL have a z-score (standard deviation that an observation falls from the mean) above 3 which means that these can be regarded as outliers (Agresti & Finlay, 2014, p. 55). Outliers have accordingly been excluded from analysis, as these distort the overall trend between the variables. It has negative implications for the conclusions of this paper since it entails that not all cases are included in some parts of the analysis, which weakens the external validity. Besides these points, gross violations underlying the models presented below have not been identified.

The limited number of cases n=28 have some implications for the type of regression analysis which is appropriate to perform. The overriding principle when constructing regression models is the principle of parsimony: Models should have no more parameters than necessary to represent the relationship adequately. The first reason for this is that simple models are easier to understand and interpret than more complex ones. The second reason is that when a model contains unnecessary variables, the standard errors of the estimates of the regression coefficient tends to inflate, which impede the ability to make precise inferences. (Agresti & Finlay, 2014, p. 467; Bøye, 2009, p. 126) Thus, having excess variables in the model, especially if these overlap with other variables, have disadvantages since it can make it difficult to assess associations that are important theoretically. The potential overlap between explanatory variables is referred to as multicollinearity, where the sample size should ideally be about 10 times the size of explanatory variables in order to avoid this issue (Agresti & Finlay, 2014, pp. 335, 456-457). Relating to this point, Alan Agresti and Barbara Finlay point out that:

"*(…) it is best not to build complex models if the data set is small. If you have only 25 observations, you won't be able to untangle the complexity of relationships between 10 variables. Even with large data sets, it is difficult to build "believable" models containing more than about 10 explanatory variables, and with small to moderate samples sizes (say, 100 or less) it is safest to use relatively few predictors"* (Agresti & Finlay, 2014, p. 442)

Accordingly, based upon these insights, the analysis will progress by conducting simple linear regression between the dependent and one independent variable. This is done in order to respect the principle of parsimony and to avoid issues of multicollinerarity arising from the limited number of cases. Moreover, the interest of this paper is to scrutinize whether the theoretical expectations set out above have a significant effect on implementation performance. Thus, this paper initially set out to examine the bivariate relation between the variables - the effect of a single variable on the outcome variable ignoring all other factors. The challenges of multiple linear regression, which expresses the effect of an explanatory variable while controlling for the effect of other explanatory variables in the model, have already been outlined in relation to the data at hand. Nevertheless, it is considered how this might be relevant in the analysis and models are discussed.

Before progressing to the analysis, some considerations in relation to linear regression as a method of statistical analysis as well as a method for analyzing implementation dynamics are included. It has to underlined that a linear model is simple approximation of reality, and it is not expected that every subject (MS) which have the same values on the independent variable have the same value on the dependent variable (Agresti & Finlay, 2014, p. 265). Therefore, this model should not be interpreted in a deterministic way. The results of a regression analysis should moreover be interpreted with caution since the association identified does necessarily entail causation but rather estimates based on the current data available (Agresti & Finlay, 2014, p. 259). These are concerns that relate to weaknesses and strengths of the statistical method itself. Another consideration is how well the method 'fits' the topic at hand. This is expressed by J. P. Olsen, who states that "*All in all, one can wonder whether the complexities of EU compliance fit 'the language of regression analysis'*" (Olsen, 1996: 271 as quoted by Mastenbroek, 2005, p. 1113) Mastenbroek points out that this has had the unfortunate consequence that potentially interesting variables, like domestic opposition, have been discarded in favor of "easy-to-measure" variables (Mastenbroek, 2005, p. 1113). It might be pointed out that this paper has potentially fallen into this trap, although the endeavor has been to select the best indicators available. It does not entail that results of this paper are inadmissible, but rather that these perhaps are most useful if interpreted in connection with qualitative results. Mastenbroek points out that a mixed method approach could reap the strengths of both methodologies. A statistical model containing many variables could be used to identify important predictors and explain some cases, after which any remaining unexplained variance could be accounted for by comparing well explained cases to poorly explained ones. (Mastenbroek, 2005, p. 1113) It is recognized that this might be relevant in the context of this paper, depending on the findings in the analysis, but it is beyond the scope to include such qualitative studies of individual cases. On the contrary, it can be highlighted as a strength of this paper that the findings are based upon a broad examination of cases, which permits generalizability, rather than explanations based on the study of individual MS. This is also more suitable considering the knowledge interest of this paper, as defined by the RQ. With these deliberations in mind the analysis is now conducted which includes the presentation of relevant statistical measures.

6.0 Analysis

This chapter presents the results of the analysis in the order the hypotheses are set out above. The most important statistical measures are reported in each of the models and comments are made on these as necessary. This includes conclusions on the uncovered associations and whether these follow the expectations set out above.

6.1 Analyzing Member State Capacity

H1: Administrative resources

H1 relates to the fiscal dimension of administrative resources. This is operationalized as the expenditure of MS governments on the protection of the environment measured in euros per capita in 2015. The diagnostics on the conditions for linear regression revealed that two outliers (LU and NL) distorted the prediction equation whereby these have been excluded and the following model is produced.

Model Summary

Predictor	Constant	B	R^2	r	Sig.
Environmental Expenditure	22.788	-0.003	-0.040	-0.058	0.782

(Dependent variable: EIR Implementation Indicator, n=26)

The high P-value means that the results are not significant on 95 % level[2], whereby the the null-hypothesis ($H_0\beta=0$)cannot be rejected. Thus, there is no significant association between the total spending on environmental protection and the implementation performance of MS. This observation is quite interesting at it would be intuitive to expect that the total spending on protection would decrease the number of gaps. Yet, this does not seem to be the case. These results should be interpreted with caution since the indicator is connected with some issues of validity as pointed out above. Moreover, the exclusion of LU and NL as outliers weakens the generalizability of the model. Examining these outliers LU spends 972 € and NL 572 € per capita on environmental protection and LU has 16 gaps and NL 19 gaps. Considering the good implementation performance of these MS it could suggest that the high spending might play a role but further research is needed to verify whether there is a significant association. Nevertheless, there is no general significant relation between the amount of gaps in a MS and the expenditure on environmental protection.

[2] The 95% level has been chosen since most studies require this value in order to reject the $H_0\beta=0$ (Agresti & Finlay, 2014)

This suggest that other factors account for the variation in the dependent variable by which the attention is turned to QoG.

H2: Quality of Government

No major issues were found in the diagnostics of the preconditions for linear regression between the EQI and the dependent variable. The model produced is summarized below.

Model Summary

Predcitor	Constant	B	R^2	r	Sig.
EQI	25.151	-3.507	0.401	-0.633	0.000

(Dependent variable: EIR Implementation Indicator, n=28)

The P-value indicates that the $H_0\beta=0$ can be rejected on a 95 % level, whereby the variation on the dependent variable can significantly be explained by the predictor. Examining the association between the variables, the standardized correlation (r -0.633) suggest that there is a negative effect from predictor. Thus, when QoG increases the number of implementation gaps are likely to decrease. The expectation set out in the hypothesis is consequently confirmed and is statistically significant. Considering the explanatory force of this model (r^2 0.401), QoG explains a substantial amount of the variation in implementation performance across the EU28 when ignoring all other factors. Considering this in relation to the insignificance of expenditure on environmental protection as seen above, it is interesting to note that the quality of provision of public services is more important but not the spending. Recalling that the EQI indicator represents an index based on sub-dimensions (Corruption, Quality and Impartiality) it would be interesting for further research to explore which of these dimensions that have the strongest effect on the implementation performance.

Having confirmed that the QoG have an impact on why there are implementation gaps within the EU's environmental policies, the attention is now turned to the next hypothesis.

H3: Multi-level Governance

This hypothesis is operationalized through the LAI and diagnostics did not reveal any major violations of the conditions for linear regression. Through linear regression the following model is produced.

Model Summary

Predictor	Constant	B	R^2	r	Sig.
Local Autonomy Index	25.972	-0.022	0.002	-0.046	0.816

(Dependent variable: EIR Implementation Indicator, n=28)

Considering the P-value, the $H_0\beta=0$ cannot be rejected whereby MLG, as indicated by the LAI, is not significant in explaining the variation in implementation performance. Reflecting on the contrary theoretical expectations about the effect of higher degrees of MLG this is perhaps not surprising. For instance, MLG might improve the implementation in some MS (the ones with sufficient administrative capacity) whereas it could have negative consequences in other MS (those with lower capacity). Another consideration might be that sub-national units are not relevant for the implementation of every policy evaluated in the EIR. However, to understand this accurately, directive level analysis of the implementation within MS would be required. The insignificant results could possibly also be ascribed to issues the measurement validity of the indicator. This is not an issue of whether the LAI expresses the local autonomy well in each MS but rather whether this is a good indicator for MLG. MLG denotes that power is decentralized and dispersed between multiple levels while the LAI expresses the autonomy of sub-national units only (the units differ across the MS). Nevertheless, the analysis suggest that MLG structure is not a significant explanation for the gaps in implementation of environmental policies.

H4: Veto Player Theory

This dimension of institutional capacity is operationalized through the Polcon iii index. The diagnostics indicates that the criteria for linear regression are satisfied, and the following model is produced.

Model Summary

Predictor	Constant	B	R^2	r	Sig.
Polcon iii index	31.4	-13.639	0.60	-0.244	0.210

(Dependent variable: EIR Implementation Indicator, n=28)

The P-value does not permit the rejection of the $H_0\beta=0$ on a 95 % level. Thereby it can be concluded that no statistical significant association exists between the veto-player influence on the feasibility of policy change in a country, as indicated by the Polcon iii index, and implementation gaps in environmental policy. Reflecting on this, it might suggest that problems of implementing EU policies do not occur in the transposition phase, the effect of veto-players might be the greatest as these can block the required measures. Rather it is a problem of enforcement and application, as suggested by the significance of QoG which relates to the efficiency and quality in the bureaucracy. Moreover, as pointed out above, the Polcon iii index is connected with a number of issues in validity, especially in relation to far reaching assumptions underlying this measure. This has already been discussed in the operationalization and is therefore not deliberated to a greater extent here. Still, it entails that the results of model should be interpreted with caution, and further research is needed in order to clarify fully whether veto-players have a

significance. Yet, contemplating this result and the insignificance of MLG above, it does not appear that the number of veto-points exert much influence on implementation performance. Instead the focus is now turned to the next hypothesis, which concerns the willingness of member states to implement.

6.2 Analyzing Member State Willingness

H5: Opposition to the EU and implementation performance

The support for the EU is operationalized by the mean image of the EU in popular opinion in a MS. The diagnostics on the conditions for linear regression did not reveal any major violations of these. Thus the following regression results are produced.

Model Summary

Predictor	Constant	B	R^2	r	Sig.
EU Image Mean	45.97	-7.55	-0.068	-0.261	0.188

(Dependent variable: EIR Implementation Indicator, n=28)

Interpreting these results, it is clear that the P-value doesn't permit the rejection of the null-hypothesis on a 95 % confidence level. So, there is no significant effect on the implementation performance of the public opinion on the EU as measured by the operationalized variable. Potential issues relating to validity of this indicator have already been discussed above. However, David Easton's distinction between diffuse and specific support in relation to political systems might be helpful in understanding these dynamics. Easton argues that the support for a political system can be understood both as the specific support for the outputs of the system and more fundamentally the support can be diffuse for the constituent elements of the system (Easton, 1975, s. 436-437). Therefore, Easton points out that: *"Conceivably a person may have little trust in the political authorities and may not even believe in their legitimacy. But, if he perceives that his demands have been met, he may be prepared to extend limited support to the particular incumbents in office*" (Easton, 1975, p. 438). Reflecting on this, it is clear that even if the EU enjoys a negative image and low diffuse support, there might still be specific support for EU policy outputs in some areas. This might very well be the case for environmental policy due to it being a policy area where there is great popular support for EU action, as pointed out in the introduction. Accordingly, the next hypothesis should permit to gauge this dynamic in more detail since it taps into specific support for action on environmental issues in a MS. Another consideration might be that citizens are not aware of whether the policies implemented are a result of EU requirements or not. Thereby the general attitude towards the EU is not a significant factor for the implementation of specific EU policies.

H6: Salience of Environmental Issues in Popular Opinion

This hypothesis is operationalized by the percentage of citizens in a given MS that ranked environment issues as one of the two main problems facing their country. In the diagnostics for the conditions for linear regression, it is indicated that the presence of an outlier (MT) distorted the prediction equation, by which this has been excluded from the model below.

Model Summary

Predictor	Constant	B	R^2	r	Sig.
Salience of Environment issues	27.235	-0.365	0.147	-0.424	0.028

(Dependent variable: EIR Implementation Indicator, n=27)

The P-value indicates that there is a significant association between the variables on a 95 % confidence level. The predictor has a negative standardized correlation (-0.424), which suggest that as the salience of environmental issues increases, the number of implementation gaps decreases. This confirms the expectations set out in the hypothesis about the effect of salience on the implementation performance. However, the explanatory force of the model is quite low (R^2 0.147) so the variation in the dependent variable is not well explained by the salience of environmental issues in a given MS. Moreover, the exclusion of MT from this model entails that these results should be interpreted with caution in terms of their general relevance. Accordingly, salience of environmental issues in popular opinion is not a strong explanation for the number of environmental policy implementation gaps. Reflecting on this, it might suggest that public opinion is not of the same relevance in relation to implementation as it is in other phases of policy-making, e.g. agenda setting. It might also be the case that certain 'focusing events' are needed in order to make salience relevant for implementation. Focusing events could be disasters which reinforce a pre-existing perception of an issue. Such events have been shown to influence what issues end up on the political agenda. (Kingdon, 2014, pp. 94-100) Similarly, if focusing events (like crisis) reveals urgent gaps in implementation it might incentivize the relevant authority to address the gap whereby it increases performance. However, this analysis does not suggest that the salience of environmental issues in public opinion is a strong predictor of implementation performance in general.

However, salience might still be relevant for implementation performance if the government attaches high salience to environment issues as it is argued above. The attention is thus turned to the next hypothesis which outlined the expectation for this.

H7: Salience of Environmental Issues for Government

This hypothesis is operationalized through the CHES indicator on political parties' environment policy position. The mean score for all parties included in a given MS is used as the indicator for the salience environment issues could be attached by a government in that given country. The diagnostics on the conditions for linear regression did not reveal any major violations, by which the model is summarized.

Model Summary

Predictor	Constant	B	R^2	r	Sig.
CHES	16.749	1.512	0.63	0.251	0.197

(Dependent variable: EIR Implementation Indicator, n=28)

The high P-value entails that there is no significant effect from the predictor on implementation performance on 95 % confidence level. Thus, a member state where the parties are on average are more 'green' do not seem to be more successful in implementing the EU's environmental policies. This is an interesting finding since it implies that implementation of environmental policies might not be a particularly political process. It has already been considered above that focusing events could be an intervening variable which might change this, and further deliberations on these points are not included. It could be highlighted that environment policies often set long term aims and are implemented across longer periods. So, if salience is to have a significant impact it is required that the government(s) consistently attaches high salience to environment issues. Another reflection is that salience might be especially relevant in the transposition phase of implementation but diminish in the phases of enforcement and application, in which the bureaucracy may be of particular relevance. However, further research on the relation between salience and implementation is required in order shed light on these points.

Before moving to the next hypothesis, it is worth recalling the issues of validity discussed in the operationalization of this indicator. It indicates the average salience of environmental issues for all the parties in a given MS and not the government of the MS directly. However, this has the advantage that the measure is more robust to changing governments which may happen in the process of implementing environment policies since these often set long term goals. It can thus be argued that it is better to asses the 'greenness' of the policymakers that could be included in government in a particular country which is the case with this indicator. Nevertheless, these ambiguities about the validity of this indicator should be kept in mind when interpreting the results.

H8: Respect for the Rule of Law and Implementation

The indicator operationalized in order to test this hypothesis is the Rule of Law index created by the World Bank. In the diagnostics of the conditions for linear regression no major violations of the conditions were found and the model can be interpreted with this in mind.

Model Summary

Predictor	Constant	B	R^2	r	Sig.
Rule of law Index	31.209	-5.896	0.458	-0.677	0.000

(Dependent variable: EIR Implementation Indicator, n=28)

The P-value indicates that there is a highly significant association between the predictor and the independent variable. Scrutinizing the negative standardized correlation (r -0.677) it confirms the hypothesized relation between a strong culture of law abidingness and a decreasing number of implementation gaps. The explanatory force (R^2 0.458) of this model suggest that this explanation can explain a considerable amount of the variation in implementation performance when ignoring all other factors. Reflecting on this finding, it would be highly relevant for further research on EU implementation to explore factors relating to the influence of informal institutional structures. However, the difficulties of operationalizing valid indicators for these when utilizing quantitative methods have limited the extent to which this paper has been able to include such factors. Nevertheless, this paper to some extent echoes the findings of Gerda Falkner and Oliver Treib, who based on qualitative analysis of implementation across EU member states concludes that the presence of a 'compliance culture' and strength of rule of law are important factors affecting implementation performance (Falkner & Treib, 2008, pp. 293-313). Like it is the case for the other indicators in this analysis, the validity of this indicator can be called into question. Perhaps this is especially relevant in the context of this hypothesis since it attempts to tap into 'the logic of appropriateness' that relates to collectively shared understandings of what constitute acceptable behavior. The question is then: whether it is possible to uncover these understandings through quantitative measurement? Such issues of validity connected to the level of meaning were anticipated in the considerations made in relation to the cross sectional design. In this connection, it was pointed out that this paper relies on the theoretical axioms to supply this meaning. Nevertheless, it still remains an issue whether the same meaning can be provided to the empirical observations of this indictor across member states. Despite these potential issues of validity connected to the indicator, the rigidity of the conclusion is supported by the findings of Falkner and Treib as pointed out above.

Before the findings are discussed, it is considered how multiple linear regression as a method of analysis can be used in order support the conclusions of this analysis.

6.3 More Complex Models for Explaining the Implementation Gaps?

In summary, the analysis evidenced that QoG, salience of environmental issues in popular opinion and the respect for the rule of law are significant factors in explaining why there are implementation gaps within the EU's environmental policies. But how do these explanations relate to one another? The analysis above found these to be significant when 'ignoring' other factors in a simple linear regression. The variables can be combined in multiple linear regression analysis where the effects of each predictor can controlled for the others included in the model. Yet, there are a number of issues that have prevented this more complex model building to be the basis of this analysis, like it is pointed out in chapter 5.0 on method. Nevertheless, some multiple linear regression models have been analyzed. This section briefly discusses the findings of these models.

The issue of multicollineraity is causing problems when attempting to create more complex models, as the EQI and the Respect for Rule of Law Index are highly internally correlated (r 0.977). As pointed out above, this causes the standard errors of the model to inflate by which significant results can not be achieved from a model including both of these variables. Considering this, models examining the effect of Salience of Environmental issues when controlling for either QoG or the Culture of Law Abidingness could still be interesting. When such models are constructed and analyzed these show that when controlling for QoG or Culture of Law Abidingness, Salience becomes insignificant as an explanation for gaps in implementation, like the model below illustrate.

Model Summary

Predcitor	Constant	B	R^2	r	Sig.
EQI	24.545	-3.915	0.407	-0.707	0.006
Salience of Environment issues	24.545	0.085	0.407	0.099	0.676

(Dependent variable: Implementation index, n=27)

Only one model has been included for the purpose of illustration, but the model containing the respect for the rule of law index provide similar results. Thus, QoG and Culture of Law Abidingness appear to be the most robust explanations for implementation gaps within the EU's environmental policies of the factors included. It has to be underlined that neither of these explanations can account for all variation, as the explanatory force of the models above evidenced. Further research would therefore be required in order to account for remaining variation in implementation performance. The results of this analysis are now discussed which include reflections on what explanations might account for the remaining variation as well reflections on the analytical framework in general.

7.0 Discussion

Initially this discussion deliberates the findings of the analysis above. This includes reflections on how the remaining variance of implementation performance might be explained. Furthermore, the theoretical framework is discussed and especially the relation between explanations of willingness and capacity. Thoughts on the method are included as the analysis has shed some light on the predicament of whether the issue of implementation fits 'the language of regression analysis'. Moreover, additional reflections on potential issues of validity are included which especially concern the operationalization of the dependent variable. The Cross-sectional design is also considered in this discussion and whether it proved suitable in ensuring that the evidenced obtained permitted to answer the RQ as unambiguously as possible.

The analysis above evidenced that, the respect for the rule of law and QoG are significant explanations for the number of implementation gaps across environmental policies. Furthermore, in simple linear regression analysis, the salience of environmental issues is found to be significant though it loses significance when controlling for either QoG or culture of law compliance in a multiple linear regression. The findings thus indicate that the latter factors are the most robust explanations for implementation gaps. It is important to underline that these results should not be interpreted in a deterministic way denoting that it cannot be expected that every MS that has low QoG or whose domestic respect of the rule of law is weak will necessarily have many gaps in implementation. Moreover, it should be kept in mind that QoG and respect for rule of law separately can account for about 40 % of the variation on the dependent variable. In this regard, it should be underlined that this should not be interpreted as these explain 80 % of the variance, which would require a different method of analysis.

With this in mind, some brief reflections are now made on how the remaining variance might be explained seen in the light of the results. Further exploringing the effects of salience as this has a significant association with the dependent variable in simple linear regression could be interesting. In order to better assess the impact of this factor, different or improved indicators would be useful which could be developed with more time and resources available. Introducing additional mechanism derived from the theoretical axioms underlying this hypothesis could also be interesting as a strategy to better understand the effect of salience. For instance, focusing events are highlighted above as a mechanism which could be introduced in order to better grasp the circumstances where salience might be especially relevant. The analysis implies that QoG is more important than the expenditure on environmental protection for implementation performance as the latter factor is found to be insignificant. However, it is highlighted above that NL and LU, as two of the countries that have few gaps, are spending substantially more than the other EU countries on environmental protection. It might suggest that extraordinarily high spending facilitates implementation while there is no general linear association. Therefore, further research on the impact on implementation performance of spending on environmental protection could be

interesting in order to better understand these dynamics. More reflections on how to account for the remaining variation in implementation performance through alternative research designs and methods are made below. However, first the attention is now turned to the theoretical lessons that can be learnt from the analysis.

In line with the theoretical developments in EU implementation research, this paper distinguishes between explanations that relate to the capacity and the willingness of member states to implement. Theories within both of these approaches are found to be relevant when explaining the dynamics of implementation that causes gaps within the EU's environmental policies. The QoG falls into the capacity category whereas the respect for the rule of law is included in relation to willingness. Some insights on capacity and willingness are now given on the basis of the analysis, and it is considered how explanations of willingness and capacity can be related. Furthermore, it is contemplated whether this distinction is really useful and appropriate.

The analysis indicates that the dimension of institutional capacity which concerns the number of veto-points is not relevant for the implementation performance as neither MLG or Veto-Player Theory are found to be significant factors. Thus, there is no indication that MS whose domestic political systems have more veto-points are worse implementers. It has previously been discussed that the indicators used in order to gauge the effects of these factors are connected with issues of validity which might be causing the insignificance of the explanations. While recognizing this, it is still worth reflecting on what might be causing this lack of relevance. An explanation might be that this dimension of institutional capacity is mostly influential during transposition where veto-players can block or delay the adaptation of the measures required by EU policies. Hence, if most of the gaps identified by the EC in the EIR are issues of enforcement/application, the influence of the number of veto-points might be limited. In this respect, resource capacity might be more relevant for these latter phases. In relation to the effect of MLG on implementation performance it was anticipated that the results of the analysis could be inconclusive since conflicting theoretical expectations can be found on its effects. Reflecting on this, the hypothesis set out above is probably too rigid and one-sided. Furthermore, the relevance of institutional veto-points could be reduced if facilitating institutions exist that helps to overcome potential resistance to change. While it could be worth further exploring this, such institutions are not taken into account in this paper since it would involve a deeper analysis of the specific institutional context of each MS. Considering the sometimes highly technical nature of the various environmental policies, it might be contended that the implementation of these is a fairly apolitical process which could perhaps diminish the effect of political institutional capacity as influenced by the number of veto-players. Further research on this could therefore be interesting. Instead it might be argued that implementation is primarily a bureaucratic process where resource capacity, like QoG, is central in in explaining whether implementation is successful or not. This is due QoG's effect on how the various of requirements of the policies are administered. However, like it is pointed out above, it

can be ambiguous whether QoG should be conceptualized as a resource or institutional capacity or both, by which institutional factors are likely still relevant.

In relation to willingness of MS to implement, the analysis pointed to salience of environmental issues in popular opinion and the respect for the rule of law as being significant in accounting for differences in performance. Some considerations have already been made in this discussion on how the effects of salience might be explored to a greater extent. However, salience of environmental issues in popular opinion becomes insignificant when controlling for QoG or the respect for the rule of law. Consequently, there is a weak basis for arguing that salience is an important factor for the implementation performance. Considering these results, it might be argued that salience is not as important for implementation for the dynamics affecting agenda-setting. Why might this be? It could be that implementation is less politicized by which the relative importance of a political issue is not affecting this phase of the policy process. It could also be considered whether a long term process like implementation is affected by salience which is likely to fluctuate across time. Additional research would be necessary in order to understand the circumstances under which salience is important to implementation performance. While the respect for the rule of law has been included as a factor of willingness, it can also be conceptualized as an institutional capacity. Therefore, the attention is now turned to the relation between willingness and capacity explanations for implementation performance.

In this paper, the norms of respect for the rule of law are defined as informal institutions that compel the actors to be willing to implement EU requirements through the logic of appropriateness. However, these cultural norms could similarly be defined as informal facilitating institutions, thereby constituting an institutional capacity. Informal institutions like this could, for instance, help in overcoming potential resistance by veto-players by facilitating the acceptance of costly implementation requirements. In this way, it blurs the distinction between willingness and capacity since these institutions may affect both. Moreover, the high correlation between the indicators for QoG and respect for the rule of law may support these arguments. This correlation could suggest that the willingness of actors to comply with the law is important to maintain good QoG as a capacity. It needs to be underlined that correlation should not be taken as causation, and therefore additional research would be needed in order to explore the relation between these variables. However, some insights are now given on the relation between these variables drawing upon arguments made by Francis Fukuyama. Fukuyama argues, based upon analysis of Greece and Italy, that quality of government depends critically on trust or social capital and that:

"*In most societies, law-abidingness is only in part the product of the degree to which governments can monitor compliance and enforce penalties for law breaking. The vast majority of law-abiding behavior is based on the fact that people see other people around them obeying the law and act in conformity to the perceived norm* (Fukuyama, 2015, p. 124)

Furthermore, Fukuyama points out that trust and quality of government interact in a reciprocal manner causing some societies to be caught in a 'low trust equilibrium' where low trust causes poor quality of government and vice-versa (Fukuyama, 2015, pp. 123-125). Drawing upon these arguments, it could be contended that capacity is important in creating the willingness to comply which conversely perpetuate capacity and so on. Thus, the distinction between factors relating to willingness and capacity may be a useful heuristic tool, but the dynamics of implementation are probably much more complex in reality. Therefore, the usefulness and appropriateness of this distinction might be called into question. The complex linkage between these concepts can also point to why it is complex to untangle these dynamics through regression analysis. A strong and impartial rule of law is also being emphasized in the definition of QoG, underlining this connection. Thus, as pointed out previously, QoG might be seen as an institutional capacity in itself, emerging from the interplay of a number of factors that are partly institutional and partly resource-based in nature. While the same could argued to be the case for the respect for the rule of law.

The QoG and the respect for the rule of law are robust explanations for implementation performance on a holistic level. However, in order to account for the remaining variance another approach might be needed. Specifically, methods or research designs which are more oriented towards gauging the unique characteristics of each case could be useful. Accordingly, considerations on this are now included.

The cross-sectional design has led this paper to examine macro-level systematic and quantifiable indicators in order to account for variation across MS and policy areas, which can be labeled 'the holistic level'. The strength of this approach is that the explanations found in this paper have a high degree of external validity. It has to be underlined that this approach is in line with the interest of the RQ in this paper. It asks why there are implementation gaps within the EU's environmental policies, and not within a specific country or environmental policy area. In this respect, the results indicate that the QoG and the respect for the rule of law are of horizontal relevance and can account for gaps across policy areas and MS. However, it needs to be recognized that the causes of gaps might not be found in the systematic features characterizing every MS but vary according to the national context, the policy area or the phase of implementation. Thus, the case study could useful in order account for such factors due its focus on an idiographic explanation. In an idiographic explanation the emphasis is on the context and evidence is obtained from the various constituent elements of each case (de Vaus, 2011, pp. 233-234). In this way, it might be possible to account for the remaining variance left unexplained by the theoretical framework of this paper. Furthermore, a more nuanced understanding could be achieved of the circumstances under which the QoG and the respect for the rule are relevant for implementation. While acknowledging this, it is maintained that the choice of research design proved suitable in obtaining the required evidence for answering the RQ unambiguously.

In relation to the predicament of whether regression analysis can be used as a method to understand the complex dynamics of implementation, the analysis indicates that this is possible although with certain limitations. Issues at the level of meaning are evident when interpreting the results of regression analysis in relation to a complex phenomenon such as implementation. In this regard, the validity of the conclusions of regression analysis relies on adequate and persuasive meaning being supplied by theories, and the quality of the indicators being used in order to gauge the theoretical concepts. Still, the meaning supplied by theories to the empirical patterns and the validity of the indicators can be disputed whereby qualitative inquires could be beneficial in supporting the findings. As indicated by chapter 5.0 on method, it is challenging to operationalize valid indicators for the underlying mechanisms influencing implementation needed in regression analysis. The resulting measures often have many issues of validity since these may rest on wide-reaching assumptions or only partly capture the underlying nominal concept. This has been pointed out continuously throughout this paper. Yet, it is not supported by the conclusions of this paper that there is a fundamental discrepancy between regression analysis and the dynamics of implementation. It is conceded that qualitative methods as well as an alternative research design could be valuable in accounting for the remaining variance left unexplained in line with Mastenbroek's arguments of outlined above. This paper can in this regard be viewed as a first step in explaining the dynamics of implementation within the EU's environmental policies which could be followed up by qualitative inquiry.

The quality of dependent variable is now briefly discussed, before a conclusion is made, as this is of essential importance for the credibility of the results. This paper has taken an innovative new approach to operationalizing a quantifiable expression for implementation performance rather than relying on the conventional use of transposition or infringement data. Like pointed out above, this indicator has several strengths vis-à-vis the conventional indicators since it is based on analysis of both outputs, including correctness and conformity, and outcome of policy. In regard to the quality of this indicator, it might be considered whether weighing should have been performed in order to better reflect the actual performance. For instance, some gaps might be more severe than others, which entails that these should be reflected to a larger degree. However, no apparent criteria have emerged during the work of operationalizing the indicator which would qualify the weighing. In the view of this paper, an implementation gap is an implementation gap no matter where it emerges since it prevents the goals laid down in the relevant policy to be achieved. Some weighing to a lesser degree has been performed as PL's failure to fulfill its reporting obligation under the Marine Strategy Framework Directive have resulted in it being allocated all gaps under this area. Another reflection is that the indicator might not be useful in uncovering the specific characteristics of the various phases of implementation, since it does not distinguish between gaps in transposition or enforcement/application. The impact of this is not great since the interest of this paper is not in the gaps arising in any specific phase but why there are gaps in implementation of environmental policies as a whole. But as pointed out above, some of the explanation for implementation gaps might be found in the dynamics of the specific policies or

phases of implementation. Nevertheless, if the interest is in specific phases or policies the indicator could be further developed for such aims. For instance, by only counting phase or policy specific recommendations by the EC. In summary, the EIR implementation indicator is considered a valid indicator for the implementation performance of the MS.

8.0 Conclusion

This paper answers the following research question: *Why are there implementation gaps within the EU's environmental policies?* It is concluded that the Quality of Government and the Respect for the Rule of Law are the most robust explanations for why there are gaps in the implementation of the EU's environmental policies. The Quality of Government is compromised of a number of underlying factors and relates to the quality, impartiality and effectiveness of the government bureaucracy in administrating public goods and services (for clarification see chapter 4.4.2). The analysis finds that high Quality of Government is associated with fewer gaps in the implementation of the EU's environmental policies. The Respect for the Rule of Law entails that the tendency to follow legal rules is contingent upon the domestic culture of law compliance (for clarification see chapter 4.4.3). The analysis finds that a domestic cultures characterized by stronger norms of respect for the rule of law are related to fewer gaps in the implementation of the EU's environmental policies. In order to clarify how this paper reached these conclusions, the analytical framework is now briefly outlined. The conclusions are based upon a cross sectional research design which entails that data is obtained on quantifiable and systematic indicators with the aim of uncovering the dynamics that cause implementation gaps. In order to measure the implementation performance of the member states, a new approach is taken by developing a quantitative indicator of implementation gaps on the basis of the recent 'Environmental Implementation Review' conducted by the European Commission. It is argued that this is a highly valid measure of implementation gaps vis-à-vis conventional quantitative indicators relying on infringement or transposition data. To explain the gaps in implementation, the theoretical framework includes theories relating to the willingness and the capacity of member states to implement EU policies. The Quality of Government is a factor of capacity and the Respect for the Rule of Law relates to willingness. Linear Regression is used as the statistical method of analysis in order to examine the patterns of association between the dependent and independent variables. The conclusions are connected with some uncertainties due to the challenge of operationalizing valid indicators for the underlying theoretical concepts. Furthermore, it should be highlighted that the analytical framework of this paper cannot account for all the observed gaps in the implementation of the EU's environmental policies. Seen in the light of this, the discussion above includes some deliberations on the directions that future research could take, and it is contended that case studies and the inclusion of qualitative methods could be useful approaches in further research.

9.0 Bibliography

Adelle, C., & Jordan, A. (2013). EU environmental policy at 40: retrospect and prospect. In C. Adelle, & A. Jordan, *Environmental policy in the EU* (Vol. 3, pp. 370-385). New York: Routledge.
Agresti, A., & Finlay, B. (2014). *Statistical Methods for the Social Sciencen* (Vol. 4th). Harlow: Pearson Education Limited.
Angelova, M., Dannwolf, T., & König, T. (2012). HOW ROBUST ARE COMPLIANCE FINDINGS? A RESEARCH SYNTHESIS. *Journal of European Public Policy* , 1269-1291.
Bailer, S. (2010). What factors determine bargaining power and success in EU negotiations? *Journal of European Public Policy , 17* (5), 743-757.
Bakker, R., Edwards, E., Hooghe, L., Jolly, S., Marks, G., Polk, J., . (2015, 1). *2014 Chapel Hill Expert Survey.* Retrieved 05 12, 2017, from CHES: http://chesdata.eu
Börzel, T. A., & Risse, T. (2000). When Europe Hits Home: Europeanization and Domestic Change. *European Integration online Papers , 4* (15), 1-24.
Börzel, T. A., Hofmann, T., & Panke, D. (2012). Caving in or sitting it out? Longitudinal patterns of non-compliance in the European Union. *Journal of European Public Policy , 19* (4), 454-471.
Börzel, T. A., Hofmann, T., Panke, D., & Sprungk, C. (2010). Obstinate and Inefficient: Why Member States Do Not Comply With European Law. *Comparative Political Studies , 43* (11), 1363-1390.
Bøye, E. M. (2009). *Statistik-Hjælperen - med SPSS vejledning.* Århus: Swesmark.
Berglund, S., Gange, I., & Van Waarden, F. (2006). Mass production of law. routinization in the transposition of European directives: a sociological- institutionalist account. *Journal of European Public Policy , 13* (5), 692-716.
Bryman, A. (2012). *Social Research Methods* (4th edition ed.). Oxford: Oxford University Press.
Charron, N. (2013). From Åland to Ankara: European Quality of Government Index. 2013 Data, Sensitivity Analysis and Final results. *QoG Working Paper Series , 11*.
Charron, N., Dijkstra, L., & Lapuente, V. (2015). Mapping the Regional Divide in Europe: A Measure for Assessing Quality of Government in 206 European Regions. *Social Indicators Research , 122* (2), 315-346.
Dahlberg, S., Holmberg, S., Rothstein, B., Khomenko, A., & Svensson, B. (2017). *The Quality of Government Basic Dataset*. Retrieved 05 12, 2017, from University of Gothenburg: The Quality of Government Institute: http://qog.pol.gu.se/data/datadownloads/qogbasicdata
de Vaus, D. A. (2011). *Research Design in Social Research.* London: Sage Publications Ltd.
Easton, D. (1975). A Re-Assessment of the Concept of Political Support. *British Journal of Political Science , 5* (4), 435-457.
European Commission. (2015a). *Self-rule Index for Local Authorities (Release 1.0)*. Retrieved 05 10, 2017, from European Commission Website: http://ec.europa.eu/regional_policy/da/information/publications/studies/2015/self-rule-index-for-local-authorities-release-1-0
European Commission. (2015b). *Self-rule Index for Local Authorities.* Retrieved 05 11, 2017, from European Commission Web Site: http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/self_rule_index_en.pdf
European Commission. (2016a). *7th EAP priority objectives*. Retrieved 04 26, 2017, from European Commission Website: http://ec.europa.eu/environment/action-programme/objectives.htm
European Commission. (2017a). *Objectives of the Environmental Implementation Review*. Retrieved 04 26, 2017, from European Commission Website: http://ec.europa.eu/environment/eir/objectives/index_en.htm

European Commission. (2017b). *The Environmental Implementation Review Cycle*. Retrieved 05 28, 2017, from European Commission Web Site: http://ec.europa.eu/environment/eir/cycle/index_en.htm
European Commission. (2017c). *The EU Environmental Implementation Review: Common challenges and how to combine efforts to deliver better results.* Retrieved 04 26, 2017, from European Commission Website: http://ec.europa.eu/environment/eir/pdf/comm_en.pdf
European Commission. (2017d). *The Environmental Implementation Review - Overview*. Retrieved 04 26, 2017, from European Commission Website: http://ec.europa.eu/environment/eir/index_en.htm
European Commission. (2017e). *Country reports and common challenges*. Retrieved 04 27, 2017, from European Commission Web Site: http://ec.europa.eu/environment/eir/country-reports/index_en.htm
European Commission. (2017f). *The EU Environmental Implementation Review Country Report - DENMARK.* Retrieved 04 27, 2017, from European Commission Web Site: http://ec.europa.eu/environment/eir/pdf/report_dk_en.pdf
European Commission. (2017g). Annex 1 – Guidance to Member States: Suggested Actions on Better Environmental Implementation*.* Retrieved 04 28, 2017, from European Commission Website: http://ec.europa.eu/environment/eir/pdf/comm_annex_en.pdf
European Commission. (2017h). *Eurobarometer 86.2 (2016)*. (D. G. Communication, Producer) Retrieved 05 12, 2017, from GESIS Data Archive: https://dbk.gesis.org/dbksearch/SDesc2.asp?ll=10&notabs=&af=&nf=&search=&search2=&db=E&no=6788
Eurostat. (2017a). *Government expenditure on environmental protection*. Retrieved 05 10, 2017, from Eurostat website: http://ec.europa.eu/eurostat/statistics-explained/index.php/Government_expenditure_on_environmental_protection
Eurostat. (2017b). *Population change - Demographic balance and crude rates at national level [demo_gind]* . Retrieved 05 27, 2017, from Eurostat Website: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_gind&lang=en
Falkner, G., & Treib, O. (2008). Three Worlds of Compliance or Four? The EU-15 Compared to New Member States. *Journal of Common Market Studies , 46* (2), 293-313.
Falkner, G., Hartlapp, M., Leiber, S., & Treib, O. (2004). Non-Compliance with EU Directives in the Member States: Opposition through the Backdoor? *27* (3), 452-473.
Fukuyama, F. (2015). *Political Order and Political Decay.* London: Profile Books LTD.
Henisz, W. J. (2002). The institutional environment for infrastructure investment. *Industrial and Corporate Change , 11* (2), 355-389.
Henisz, W. (2015, 08 07). *The Political Constraint Index (POLCON) Dataset.* Retrieved 05 12, 2017, from Wharton University of Pennsylvania Website: https://mgmt.wharton.upenn.edu/faculty/heniszpolcon/polcondataset/
Hille, P., & Knill, C. (2006). 'It's the Bureaucracy, Stupid' - The Implementation of the Acquis Communautaire in EU Candidate Countries, 1999–2003. *European Union Politics , 7* (4), 531-552.
Hooghe, L., & Marks, G. (2003). Unraveling the Central State, but How? Types of Multi-Level Governance. *The American Political Science Review , 97* (2), 233-243.
Jordan, A., & Tosun, J. (2013). Policy Implementation. In C. Adelle, & A. Jordan (Eds.), *Environmental Policy in the EU - Actors, institutions and processes* (3rd Edition ed., pp. 247-267). Abingdon: Routledge.

Kingdon, J. W. (2014). *Agendas, Alternatives, and Public Policies* (Vol. 2). Harlow: Pearson.
Knill, C., & Liefferink, D. (2007). *Environmental Politics in the European Union - Policy-making, implementation and patterns of multi-level governance.* Manchester: Manchester University Press.
Knill, C., & Tosun, J. (2013). Governance Institutions and Policy Implementation in the European Union. In J. Richardson (Ed.), *Constructing a Policy-Making State?: Policy Dynamics in the EU* (Vol. 1, pp. 309-334). Oxford: Oxford University Press.
Ladrech, R. (2010). *Europeanization and National Politics.* Hampshire, England: Palgrave Macmillan.
Lampinen, R., & Uusikylä, P. (1998). Implementation Deficit - Why Member States do not Comply with EU directives? *Scandinavian Political Studies , 21*.
March, J. G., & Olsen, J. P. (2005, March). *Elaborating the "New Institutionalism".* Retrieved May 6, 2017, from http://www.arena.uio.no: http://unesco.amu.edu.pl/pdf/olsen2.pdf
March, J. G., & Olsen, J. P. (1998). The Institutional Dynamics of International Political Orders. *International Organizations , 52* (4), 943-969.
Mastenbroek, E. (2005). EU compliance: Still a 'black hole'? *Journal of European Public Policy , 12* (6), 1103-1120.
Mbaye, H. A. (2001). Why National States Comply with Supranational Law. *European Union Politics , "* (3), 259-281.
Milio, S. (2014). *From Policy to Implementation in the European Union.* London: I.B. Tauris & Co. Ltd.
Napel, S., Widgrén, M., & Mayer, A. (2013). Strategic A Priori Power in the European Union's Codecision ProcedureRecalculatedforEU28 . In M. J. Holler, & H. Nurmi (Eds.), *Power, Voting, and Voting Power: 30 Years After* (pp. 553-572). Heidelberg: Springer.
Pollack, M. A. (2015). Theorizing EU Policy-Making. In H. Wallace, M. A. Pollack, & A. R. Young (Eds.), *Policy-Making in the European Union* (Vol. 7th, pp. 12-46). Oxford: Oxford University Press.
Saurugger, S. (2014). *Theoretical Approaches to European Integration.* New York: Palgrave Macmillan.
Shapley, L. S., & Shubik, M. (1954). A Method for Evaluating the Distribution of Power in a Committee System. *The American Political Science Review , 48* (3), 787-792.
Spendzharova, A., & Versluis, E. (2013). Issue salience in the European policy process: what impact on transposition? *Journal of European Public Policy , 20* (10), 1499-1516.
Steunenberg, B., & Rhinard, M. (2010). The transposition of European law in EU member states: between process and politics. *European Political Science Review , 2* (3), 495-520.
Sverdrup, U. (2007). Implementation. In *Europeanization - New Research Agendas* (pp. 197-212). New York: Palgrave Macmillan.
Tallberg, J., & Johansson, K. M. (2008). Party politics in the European Council. *Journal of European Public Policy , 15* (8), 1222-1242.
The Quality of Government Institute. (2016, 5 30). *QoG EQI Data*. Retrieved 05 10, 2017, from The Quality of Government Institute - University of Gothenburg: http://qog.pol.gu.se/data/datadownloads/qog-eqi-data
Treib, O. (2008). Implementing and complying with EU governance outputs. *Living Reviews in European Governance , 3* (5), 4-20.
Treib, O. (2014). Implementing and complying with EU governance outputs. *Living Reviews in European Governance , 9* (1).

Treverton, G. F., & Jones, S. G. (2005). *Measuring National Power.* Santa Monica: RAND Corporation.
Tsebelis, G. (2002). *Veto Players - How Political Institutions Work.* Princeton: Princeton University Press.
Warntjen, A. (2010). Between bargaining and deliberation: decisionmaking in the Council of the European Union. *Journal of European Public Policy , 17* (5), 665-679.
Young, A. R. (2015). The European Policy Process in Comparative Perspective. In M. A. Helen Wallace, *Policy-Making in the European Union* (pp. 46-72). New York: Oxford University Press.

Annex 1 – Suggested Actions on Better Environmental Implementation

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ANNEX 1

ANNEX

GUIDANCE TO MEMBER STATES: SUGGESTED ACTIONS ON BETTER ENVIRONMENTAL IMPLEMENTATION

to the

THE COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

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

{SWD(2017) 33 - 60 final}

GUIDANCE TO MEMBER STATES:

SUGGESTED ACTIONS ON BETTER ENVIRONMENTAL IMPLEMENTATION[1]

Suggested actions	*Member State(s)*
Developing a circular economy and improving resource efficiency	
• Strengthen the policy framework to speed up the uptake of the circular economy by all economic sectors, providing further support to local businesses and increasing investments in the public research and education systems, especially concerning water and energy savings, waste reduction, the recycling of materials, eco-design and the uptake of secondary raw materials market.	BE, BG, CZ, DE, HR, HU, IT, RO, SE,SK
• Implement a better monitoring of the circular economy policies in order to assess their effectiveness and be able to revise them.	PT, SI
• Facilitate development and exchange of good practices between all government entities especially at local level regarding circular economy and eco-innovation matters.	BE, CY, EL, ES
• Incentivise academia and schools in order to promote circular economy. Raise awareness of the consumers and SMEs on the benefits of circular economy.	IT, PL, SK
• Adopt circular economy principles; increase the level of recycling and the use of eco-design in the SME sector, in particular by investing further in education and training. Incentivise resource efficiency measures (e.g. savings of energy and water).	BE, EL, ES, HU, IT, RO, SK
• Incentivise investments in green products and services. Facilitate green investments and ease the access to funding. Foster R&D funding among SMEs.	CZ, ES, HU, MT, RO, SE, SK
Waste management	
• Introduce policies, including economic instruments (*Extended Producer Responsibility*, *Pay As You Throw* schemes), to implement further the waste hierarchy, i.e. promote prevention, and make reuse and recycling more economically attractive. Eliminate free-riding and ensure financial viability of waste management companies.	AT, BG, CY, DE, DK, EE, EL, ES, FI, FR, HR, HU, IE, IT, LU, LV, MT, NL, PL, PT, RO, SE, SI, SK, UK
• Shift reusable and recyclable waste away from incineration by gradually phasing out subsidies to incineration or by introducing an incineration tax.	AT, BE, CZ, DE, DK, EE, FI, IE, LU, PL, PT, SE
• Introduce and/or gradually increase landfill taxes to phase-out landfilling of recyclable and recoverable waste. Harmonise regional landfill taxes. Pursue the review of the level of landfill gate fees. Use the revenues from the economic instruments to support the separate collection and alternative infrastructure.	CY, CZ, EL, ES, HR, HU, IT, LT, LV, MT, PL, RO, SI, SK, UK
• Focus on implementation of the separate collection obligation to increase recycling rates and prioritise the separate collection of bio-waste in order to increase composting rates. Establish sites for collection of specific waste (so called 'points for collection of selective waste') in each municipality.	BG, CY, CZ, EE, EL, ES, FR, HR, IE, IT, LT, PL, PT, RO, SK
• Complete and update the Waste Management Plan(s) and/or Waste Prevention Programme(s) in order to cover the whole territory.	BE, DE, EL, ES, FR, RO
• Finalise the work on the irregular landfills as a matter of high priority.	BG, CY, EL, RO

[1] The present Annex summarises the suggested actions contained in the 28 EIR country reports. It should be noted that in this first round of EIR evaluations the Commission decided to focus on a limited number of actions that need to be given priority in each Member State. In addition, in the light of the information available, the Commission decided not to suggest actions in the area of green infrastructure, soil protection, sustainability of cities, green taxation and phasing out environmentally harmful subsidies, green public procurement and investments in this first EIR round, although these areas are reviewed in the reports.

• Avoid building excessive infrastructure for the treatment of residual waste.	BG, CY, CZ, EL, ES, HR, HU, IT, LT, LV, MT, PL, RO, SK
• Ensure waste statistics are compatible with Eurostat Guidelines. Improve consistency of data on waste management from various sources (also as to the large gap between waste generated and treated).	CZ, SI
• Intensify cooperation between the regions to use waste treatment capacity more efficiently and to achieve the national recycling targets.	ES, IT
• Strengthen and empower enforcement capability.	MT, PL, RO
Nature and Biodiversity & Estimating Natural Capital	
• Complete the site designation process, including in the marine part, and put in place clearly defined conservation objectives and the necessary conservation measures for the sites and provide adequate resources for their implementation in order to maintain/restore species and habitats of community interest to a favourable conservation status across their natural range. Complete and update prioritised action framework (PAFs). Improve knowledge and data availability to be in a better position to implement appropriate conservation measures.	AT, BE, BG, CY, CZ, DE, DK, EE, EL, ES, FI, FR, HR, HU, IE, IT, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI, SK, UK
• Ensure that Natura 2000 management plans are being effectively implemented with administrative capacity and finance. Build capacity of competent authorities (central, regional, site management bodies) to implementing Management Plans, increasing awareness about Natura 2000 and incentives for investments promoting its benefits, and tackling illegal activities affecting wildlife through enhanced enforcement, both within and outside Natura 2000 areas.	BG, EE, EL, IT, PL, RO, SI, SK
• Develop and promote smart and streamlined implementation approaches, in particular as regards site and species permitting procedures, ensuring the necessary knowledge and data availability and strengthen communication with stakeholders.	AT, BG, CY, CZ, DE, EE, ES, HU, IT, LT, MT, PL, PT
• Continue supporting the mapping and assessment of ecosystems and their services, evaluation and development of natural capital accounting systems.	AT, BE, BG, CY, CZ, DE, DK, EE, EL, ES, FI, FR, HR, HU, IE, IT, LT, LV, MT, NL, PL, PT, RO, SE, SI, SK
• Build the capacity of the administration in order to improve Appropriate Assessment procedures and prevent deterioration of Natura 2000 sites from damaging developments.	CY, EL, IT
• Ensure the appropriate enforcement of hunting bans for protected bird species.	CY, FR, MT
• Strengthen the integration of biodiversity concerns into other policies (in particular in agriculture, but also in forestry, fisheries, urban and infrastructure planning and tourism) and the promotion of communication between actors.	DE, DK, FR, PT, SI
• Optimise the contribution of the Natura 2000 and the national nature networks to achieving good conservation status, and to reduce habitat fragmentation, atmospheric nitrogen deposition, desiccation and acidification.	NL
• Avoid further habitat fragmentation and take measures to restore connectivity.	LU
• Ensure that the Rural Development Programmes and the implementation of greening favour biodiversity measures and contribute to achieving a favourable conservation status of habitats and species, especially for the maintenance of High Nature Value farming.	LU, NL, RO
• Capitalise valuable natural capital to create jobs and income. In this context, promoting further sustainable tourism.	EL, ES
• Continue to support the ongoing work on a sustainable partnership for	FR, UK

biodiversity protection, sustainable development and climate change adaptation and mitigation measures in the Outermost Regions and the Overseas Countries and Territories.	
• Improve the incentives for foresters and farmers to better protect forest and grassland habitat. Ensure the sustainable forest management and promote efficient use of biomass.	LV, SK
Marine protection[2]	
• Continue work to improve the definitions of *good environmental status* (GES) (in particular for biodiversity descriptors), including through regional cooperation by using the work of the relevant Regional Sea Convention(s).	BE, CY, DE, DK, EE, EL, ES, FI, FR, HR, IE, IT, LT, LV, MT, NL, PT, RO, SE, SI, UK
• Identify and address knowledge gaps underpinning the GES.	BE, BG, CY, DE, DK, EE, FI, FR, IE, LT, LV, MT, NL, PT, RO, SI
• Further develop approaches assessing (and quantifying) impacts from the main pressures in order to lead to improved and more conclusive assessment results for 2018 reporting.	BE, BG, CY, DE, EE, EL, HR,IE, IT, LV, LT, MT, NL, RO, SE, UK
• Continue to integrate monitoring programmes existing under other EU legislation and to implement joint monitoring programmes developed at (sub)regional level (HELCOM, OSPAR, the Barcelona Convention, the Black Sea Commission). Enhance comparability and consistency of monitoring methods within the country's marine region(s).	BE, BG, CY, DE, DK, EE, ES, FI, FR, HR, IE, IT, LT, LV, NL, PT, RO, SE, SI, UK
• Urgently finalise, report and implement the national programme of measures.	BG, CY, DK, EE, EL, HR, LT, MT, SI, RO
• Ensure that the Member State's monitoring programme is implemented without delay, and is appropriate to monitor progress towards GES.	BE, BG, CY, DE, DK, EE, ES, FI, FR, HR, IT, IE, LT, LV, MT, NL, PT, RO, SE, SI, UK
Air quality	
• Maintain downward emissions trends of air pollutants in order to achieve full compliance with currently applicable *national emission ceilings* and *air quality limit values*. Reduce adverse air pollution impacts on health, environment and economy.	AT, BE, DE, DK, ES, FI, FR, LU, NL
• Maintain downward emissions trends of air pollutants in order to achieve full compliance with *air quality limit values*. Reduce adverse air pollution impacts on health, environment and economy.	BG, CZ, EL, HR, HU, IT, LT, PL, PT, RO, SE, SI, SK, UK
• Maintain downward emission trends of air pollutants – and reduce adverse air pollution impact on health, environment and economy, including through the development of a comprehensive strategy and action plan to tackle traffic congestion.	CY, EE, MT
• Reduce ammonia (NH3) emissions to comply with currently applicable national emission ceilings, for example by introducing or expanding the use of low-emission agricultural techniques.	AT, DE, DK, ES, FI, NL
• Reduce NMVOCs emissions to comply with currently applicable national emission ceilings and, where applicable, to reduce ozone concentrations.	DE, DK, IE, LU
• Reduce nitrogen oxide (NOx) emissions to comply with currently applicable national emission ceilings *and/or* to reduce nitrogen dioxide (NO2) (and, where applicable, ozone concentrations), inter alia, by reducing transport related	AT, BE, CZ, DE, DK, EL, ES, FI, FR, HU, IE, IT, LU, NL, PL, PT, RO, SE, SK, UK

[2] Commission did not formulate guidance to Poland due to its late reporting under the Marine Strategy Framework Directive.

emissions - in particular in urban areas.	
• Reduce PM_{10} (and where applicable benzo[a]pyrene) emission and concentration, inter alia, by reducing emissions related to energy and heat generation using solid fuels, to transport and to agriculture.	AT, BE, BG, CZ, DE, EL, ES, FR, HR, HU, IT, LT, LV, PL, RO, SE, SI, SK
Noise	
• Complete missing noise action plans.	BE, CY, CZ, DE, EL, ES, FR, HR, IT, LV, PL, PT, RO, SE, SI, SK
• Complete missing noise maps.	BE, EL, ES, FR, IT, LV, PT, RO, SK
Water quality and management	
• Improve water policy in line with the intervention logic of the Water Framework Directive in the second cycle of the river basin management plans (RBMPs), i.e., provide a more detailed assessment of pressures to improve monitoring to know the status of water bodies and design *Programmes of Measures* that address all the main pressures identified, in particular hydromorphological pressures and pollution, from agriculture, industry and urban wastewater. The Programmes of Measures and monitoring programmes should be adequately funded.	AT, BE, BG, CY, CZ, DE, DK, EE, EL, ES, FI, FR, HR, HU, IE, IT, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI, SK, UK
• Ensure that exemptions granted fulfil all conditions of the Water Framework Directive and are supported by evidence, in particular regarding the assessment of significantly better environmental option. Maintain effort to reduce the number of exemptions.	AT, BE, MT, NL, PL
• Establish and/or roll out a water pricing policy covering a broad range of water services and based on metering that would include tariffs reflecting environmental and resource costs and provide incentives for more efficient use of water. Exemptions from water fees should be reconsidered. The setup of a national regulator or supervisor body to ensure consistency and the adequate cost-recovery in the tariffs would be also advisable.	BG, CY, CZ, ES, HU, IE, IT, SK
• Ensure that water pollution by agriculture is effectively addressed both under the Nitrates and the Water Framework Directive. Take effective basic and supplementary measures to address that pollution. Monitor the development of agricultural pressure and water quality, with a view to informing the designation of vulnerable zones and the review of *Nitrate Action Programmes*. Take account, where relevant, of areas of intensive agriculture and nitrate levels, trends of increasing agricultural pressure and particularly sensitive water bodies, such as the Baltic Sea.	BE, BG, CY, CZ, DE, DK, EE, EL, ES, FI, FR, IE, IT, LT, LV, MT, NL, PL, PT, RO, SE, SI, UK
• Control of water abstraction both for surface and ground waters should improve. Promote water efficiency and sustainable water retention including natural water retention measures in the Programme of Measures and ensure adequate funding. In the case of Cyprus, water from desalination should not be destined for agricultural use.	CY, ES
• Review water permits, so they are consistent with environmental objectives and ensure that new projects which may cause deterioration of the status are properly assessed according to the Water Framework Directive Article 4(7). In these assessments alternative options and adequate mitigation measures have to be considered. Licencing policy to allow or maintain hydropower plants should be reviewed and updated	BG, CY, CZ, EL, ES, HU, IT, LT, LU, PL, PT, SE, SK
• Complete implementation of the Urban Waste Water Treatment Directive for all agglomerations. Build up the infrastructure to comply with the Drinking Water Directive and the Urban Waste Water Treatment Directive (UWWTD). Improve the national reporting system under the UWWTD. Continue to prioritise the investments for UWWT plants, including through efficient use of the Cohesion	BE, BG, CY, EL, ES, HR, HU, IE, IT, PL, PT, RO, SI

Policy funding where eligible.	
• Measures to rationalise water and wastewater management structures and services could also be considered together with incentives for increasing the level of physical connections to the networks.	LV
• Adopt all flood risk and flood hazard maps. Focus on nature-based retention measures when implementing flood protection projects. Combine flood management with water retention in a comprehensive way, considering also the serious water scarcity problems.	BG, HU, IT, MT
• Improve the coordinated implementation between water, marine and nature policies as well as between water management authorities.	BE, IT, PT
International agreements	
• Increase efforts to be party to relevant multilateral environmental agreements, by signing and ratifying the remaining ones.	EL, IE, IT, MT
Effective governance within central, regional and local government & Coordination and Integration	
• Simplify environmental administrative procedures and improve cooperation of public authorities (at national, regional and local levels) involved in the application of environmental policies.	EL
• Strengthen the administrative capacity in the Ministry of Environmental and Nature Protection, as this would affect positively the use of EU Funds and speed up the alignment with the EU environmental policies and legislation.	HR
• Address the fragmentation at regional and local levels by developing better coordination mechanisms for environment.	ES, HU, IT
• Ensure that the opinion on the assessment of the effects of certain public and private projects on the environment referred to in Article 6 of the EIA Directive as amended is delivered by a functionally independent authority.	FR
• Ensure increased partnership and transparency all over the public administration and strengthen public participation in decision-making relating to environmental matters.	HU
• Make greater use of impact assessments of draft legislation, covering in particular environmental impacts.	HU
• Establish a clear and transparent process for the authorization of activities and facilities that have impact on the environment.	HU
• Improve the timely reporting under the EU environmental legislation and ensure sufficient staff capacity for this purpose in particular and more generally for a more effective implementation and enforcement of the environmental policy.	MT
• Ensure that the newly established Environment and Resources Authority has strong responsibilities. There should be clear and transparent processes for the authorization of facilities and activities that have impact on the environment.	MT
• Use EU Funds to build necessary capacities and know-how at all levels of administration involved in implementation and enforcement.	PL
• Strengthen governance of EU environmental legislation and policies, in particular in nature conservation and water management (e.g. adapt the structure and tasks of the water authorities to better perform the tasks related to the implementation of the Water Framework Directive and involve them in the permitting process).	PL
• Improve enforcement in case of failures to implement mitigation and compensatory measures imposed on project developers in environmental decisions and construction permits.	PL

• The experience obtained on the definition and implementation of the mitigation and compensation measures regarding the dam projects should be extended to other infrastructure likely to have significant impacts on the Natura 2000 network. The composition of follow-up commissions for these projects should be as broad as possible and include representative NGOs	PT
• Effectively implementing and making use of the recently created initiatives in order to improve efficiency, effectiveness and coordination of the public sector in the environmental domain, namely improving information sharing and documentation exchange between public entities that are responsible for inspection and monitoring in the areas of Agriculture, Sea and Environment, with an operational platform.	PT
• Speed up its implementation of the strategy for strengthening public administration, within which environment should be given due attention.	RO
• Improve the administrative capacity and the coordination of the agencies involved in implementation, in particular with regard to water and waste management as well as to the quality of the impact assessments.	RO
• Ensure that the EU environmental legislation is respected as part of the reform of the national permitting system aiming to remove unnecessary administrative burden and streamline procedures.	SI
• Improve the application of EIA and SEA as important tools to ensure environmental integration.	CZ, SK
Compliance assurance	
• Improve transparency on the organisation and functioning of compliance assurance and on how significant risks are addressed.	AT, BE, BG, CZ, DE, DK, EE, EL, ES, FI, FR, HR, HU, IE, IT, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI, SK, UK
• Encourage greater participation of competent authorities in environmental compliance networks.	AT, BG, CY, CZ, DK, EE, EL, FI, HR, HU, LU, LV, PT, RO, SE, SI, SK
• Step up efforts in the implementation of the Environmental Liability Directive (ELD) with proactive initiatives, such as setting up a national register of ELD incidents and/or drafting national guidance.	AT, BE, BG, CY, CZ, DE, EE, EL, FI, FR, HR, HU, IT, LT, LU, LV, MT, PL, RO, SE, SI, SK
• Take further steps to ensure an effective system of financial security for environmental liabilities.	BE, CY, DK, EE, FI, FR, HR, HU, IE, IT, LT, LU, LV, MT, NL, PL, RO, SE, SI, UK
Public participation and access to justice	
• Take the necessary measures to ensure standing of environmental NGOs to challenge acts or omissions of a public authority in all sectoral EU environmental laws, in full compliance with EU law as well as the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in environmental matters (Aarhus Convention).	AT, BE, BG, CZ, DE, HU, IT, PL, SE, SI, SK
• Evaluate the costs of legal challenges involving EU environmental law and pursue efforts in order to ensure that they are not prohibitively expensive.	CY, DK, EE, ES, FR, IE, LU, MT, RO, UK
Access to Information, knowledge and evidence	
• Critically review the effectiveness of the country's data policies and amend them, taking 'best practices' into consideration.	AT, BE, BG, CY, CZ, EE, EL, HR, HU, IT, LT, MT, PT, RO, SI, SK
• Identify and document all spatial data sets required for the implementation of environmental law, and make the data and documentation at least accessible 'as	AT, BE, BG, CY, CZ, DE, DK, EE, EL, ES, FI,

is' to other public authorities and the public through the digital services foreseen in the INSPIRE Directive.	FR, HR, HU, IE, IT, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI, SK, UK