

## **From environmental policy concepts to practicable tools:**

### **Knowledge creation and delegation in multilevel systems**

#### **Introduction**

Most policy issues are ‘boundary spanning’ and require the coordination and integration of sectoral policies in order to be solved (e.g. Dommett and Flinders 2015; Peters 2015; Egeberg and Trondal 2016; Candel 2017; Trein et al. 2018). For instance, to promote gender equality, national and international public authorities have developed ‘gender mainstreaming’ in order to preside over several policy sectors, such as economic, health, home affairs, employment and social policy (see, e.g., Pollack and Hafner-Burton 2010). Different ministries, departments and agencies are responsible for these policy sectors and pursue different policy goals. In the attempt to integrate these sectors towards an overarching goal, such as increasing gender equality, the European Union (EU) as well as other international organizations (IOs) have developed policy concepts such as ‘better regulation’ (e.g. Radaelli 2007) and ‘integrated impact assessment’ (e.g. Franz and Kirkpatrick 2008).

The “translation from rhetoric to action” (Nilsson and Persson 2017: 333) of such policy concepts requires the definition of policy objectives, instruments, indicators, administrative procedure and practice (see, e.g., Lafferty and Hovden 2003; Hertin and Berkhout 2003; Pollack and Hafner-Burton 2010; Newig and Koontz 2014) and, consequently, political and financial resources. In the EU’s multilevel system, the complexity in implementing boundary-spanning policy concepts is magnified because “authority is not monopolized by the governments of the Member States but is diffused to different levels of decision-making” (Kohler-Koch and Rittberger 2006: 34). Furthermore, the EU’s organizational design corresponds to a sectoral logic,

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3 which hampers cross-sectoral coordination and produces a ‘coordination dilemma’ (Egeberg and  
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5 Trondal 2016).  
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8 Against this background, Maggetti and Trein (this issue) argue that multilevel systems  
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10 need to be understood both in terms of problem-solving capacity and problem-generating  
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12 potential (see also, e.g., Scharpf 1997; Benz 2000; Piattoni 2010; Lodge and Wegrich 2014;  
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14 Newig and Koontz 2014; Schakel et al. 2015). When problems cannot be solved at one political  
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16 level, policymakers may rely on knowledge, expertise and capacity of another political level to  
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18 attain this, resulting in upward, downward, or sideward delegation of political authority. Further,  
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20 delegation reduces the costs of generating the knowledge to translate policy concepts in  
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22 administrative practices.  
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27 Multilevel governance also spurs solutions through mechanisms of policy benchmarking  
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29 that induces learning from policies with better performance (e.g. Benz 2000). The learning  
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31 potential is higher if benchmarking is not only confined within the EU but also includes other  
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33 global and regional organizations. Sharing information and generating knowledge jointly with  
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35 member states and IOs reduce information and search costs, provided that benchmarking is based  
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37 on a clear methodology (Paasi 2005: 20-21). ‘Learning by comparing’, however, requires a  
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39 continuous improvement of the best performers, otherwise the process of learning is confined,  
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41 obstructing the emergence of new policy solutions (Paasi 2005).  
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45 In this study, we examine how the EU has proceeded in translating the abstract concept of  
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47 Environmental Policy Integration (EPI) (Hertin and Berkhout 2003: 40; see also Lenschow  
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49 2002a; Jordan and Lenschow 2010; Nilsson and Persson 2017; Persson et al. 2018) into concrete  
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51 policy tools in multilevel systems. We are particularly interested in the relationship between the  
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53 EU and IOs in generating and transferring policy-relevant knowledge (e.g. Stone 2004, 2008).  
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55 We show that in the past the EU has indeed co-produced policy models with IOs. However, in the  
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3 last few years, the EU's international reputation as environmental leader (see, e.g., Oberthür and  
4 Roche Kelly 2008; Gehring and Oberthür 2009; Oberthür and Rabitz 2014) has induced some  
5 IOs to adopt the EU's approach and invest little in the conceptual advancement or reinvention of  
6 abstract policy concepts. Consequently, IOs do not offer the EU (better) policy models or (new)  
7 policy-relevant knowledge. Over time, having clarified what EPI entails, the EU Council has  
8 delegated their definitional authority downward to the member states and sideward to the  
9 European Environment Agency (EEA) in order to generate new policy knowledge.  
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19 The article shall unfold as follows. First, we discuss in detail the above theoretical  
20 argument. Next, we offer background information on EPI and the policy tools developed by the  
21 EU for putting EPI into action. We then turn to six selected IOs' approach to EPI and discuss  
22 what type of policy knowledge they provide. Subsequently, we examine the delegation  
23 trajectories as they have materialized in the EU. Finally, we discuss our findings in light of the  
24 overarching analytical interest of this symposium (Trein et al., this issue) and the conceptual  
25 model put forth by Maggetti and Trein (this issue) as well as offer some concluding remarks.  
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### 38 **Knowledge and delegation trajectories: the theoretical argument**

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41 This symposium seeks to improve our understanding of the functioning of multilevel governance  
42 by extending the analytical perspective beyond the EU (Trein et al., this issue). We contribute to  
43 this objective by developing a theoretical argument that connects the delegation of authority  
44 within the EU with the generation of policy models and policy-relevant knowledge by other IOs.  
45 More specifically, we are interested in one particular type of authority, that is, the authority to  
46 operationalize a policy concept with a view to transforming it into a practicable policy tool. We  
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3 regard this ‘definitional authority’ as a source of power since the way in which a given policy  
4 concept is defined is consequential for the subsequent stages of the policy process.  
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8 The starting assumption is that the EU is a rational collective actor and principally willing  
9 to delegate definitional authority (see, e.g., Pollack et al. 2005: 376). According to theories of  
10 bureaucracy, it may first appear counterintuitive to expect that EU organs are willing to delegate  
11 authority at all. Empirically, however, several examples exist demonstrating a delegation of  
12 authority on the part of EU organs to other EU-level organizations such as EU agencies (see, e.g.,  
13 Egeberg and Trondal 2011). Depending on the theory from which one draws, the motivations for  
14 delegating authority vary. We follow rational choice institutionalism, which posits that delegation  
15 is an attractive option as it lowers the transaction costs of policymaking (Bergström et al. 2007).  
16 Transaction costs comprise costs related to searching and processing information, bargaining and  
17 negotiation, and monitoring and enforcement (see Thomson and Torenvlied 2011: 142-144).  
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31 From the perspective of transaction costs, the EU should first delegate the definitional  
32 authority to the political level that can provide readily available policy tools or knowledge for  
33 how to establish such tools. However, the actual delegation trajectory will depend on, first, the  
34 capacity of the EU organs to oversee the process of defining and operationalizing policy  
35 concepts, and second, the supply of (better) policy model and (new) policy-relevant knowledge  
36 by the individual political levels. These assumptions lead to the following two corollaries. First,  
37 the EU is less likely to delegate definitional authority when a (new) policy concept is emerging  
38 and is still conceptually undefined, creating a high level of political uncertainty and oversight  
39 costs. Second, the EU is willing to rely on externally produced policy benchmarks and models in  
40 order to reduce its information transaction costs. Overall, delegation is plausible when the costs  
41 stemming from political uncertainty and control over policy formulation and implementation do  
42 not offset the benefits of externalizing policy knowledge costs.  
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3 The international level provides models that define policy concept (e.g. Stone 2004, 2008)  
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5 without the offsetting of political uncertainty and oversight costs typical of delegation within the  
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7 EU. IOs typically offer guidelines for defining the (environmental) policy concepts they promote  
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9 (Busch and Jörgens 2005: 93). Therefore, especially when a policy concept is emerging and both  
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11 the information transaction costs and political oversight costs are high, the EU is likely to rely on  
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13 and engage with the knowledge produced at the international level.  
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17 In case IOs have limited capacity of producing EPI benchmarks, the option for the EU to  
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19 lower the information transaction costs is to adopt a policy model provided by the member states.  
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21 This option is usually associated with downward delegation and comes at a comparatively low  
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23 transaction cost (vis-à-vis sideward delegation) if the concept of EPI have been operationalized in  
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25 measurable objectives, reducing the policy oversight costs. In such a context, supervised  
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27 decentralization allows policy experimentation, and at the same time, the costs for information  
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29 gathering and processing incur mainly to the member states that invest in a policy invention. This  
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31 argument corresponds to the classic ‘uploading’ perspective in Europeanization studies (see, e.g.,  
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33 Bulmer and Burch 2005). Relying on policy models developed by the member states offers the  
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35 additional advantage that they are implementable (see, e.g., Bach et al. 2015; Egeberg and  
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37 Trondal 2016).  
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42 In the case of persistent lack of policy knowledge and models for operationalizing abstract  
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44 policy concepts, the final option for the EU is to delegate its definitional authority over policy  
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46 concepts to bureaucratic agencies that possess relevant knowledge and expertise. This trajectory  
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48 is inferior in terms of transaction efficiency since the EU organs need to generate the relevant  
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50 knowledge and then translate it into policy models for defining precisely administrative  
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52 procedures and enforcement practices. Especially the latter can entail bargaining costs in addition  
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3 to the information costs (see Bergström et al. 2007). Furthermore, the EU organs, and in  
4 particular the Commission, are burdened with high policy oversight costs.  
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8 While the transaction cost perspective gives way to a clear preference order concerning  
9 the three delegation trajectories, we argue that the EU sometimes will deviate from it. When the  
10 initially preferred political level does not supply a (better) policy model or (new) policy  
11 knowledge, the EU will go to the next-preferred level.  
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17 We contend that environmental policy concepts are an area in which the EU has  
18 increasingly experienced difficulties in relying on internationally available policy models. The  
19 reason for this is the EU's strong international reputation as the environmental policy benchmark  
20 over the years (see, e.g., Oberthür and Roche Kelly 2008; Gehring and Oberthür 2009; Kelemen  
21 2010; Oberthür and Rabitz 2014). IOs produce and validate knowledge claims in order to  
22 exercise power legitimately (Miller 2007). In an optimistic scenario, this form of expert authority  
23 results in a process of knowledge coproduction and sharing of policy solutions. However, the  
24 impact of such knowledge transfer may be limited to reputational effects, resulting in a situation  
25 in which one organization – in this case the EU – is the undisputed policy model to follow.  
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38 This lack of policy models supplied by IOs would induce the Commission to consider  
39 downward delegation. However, this institutional solution can only be reasonably taken into  
40 consideration if the member states can offer policy models (see Radaelli 2000). In the absence of  
41 effective national policy models that can be transferred to the European level, the EU has little  
42 choice but to opt for the sideward delegation of definitional authority, even if this approach is  
43 likely to entail relatively higher transaction *and* oversight cost. In other words, we argue that the  
44 sideward delegation trajectory materializes because the other two sources of policy models are  
45 unattainable or ineffective. Moreover, and following the notion of Maggetti and Trein (this issue)  
46 of multilevel governance as a dynamic process, we argue that the EU is flexible in choosing the  
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3 most cost-effective policy model and source of policy-relevant knowledge. Consequently, the EU  
4 will keep exploring whether it can shift to a more preferred delegation trajectory.  
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### 10 **Origins, concept and the design of tools for Environmental Policy Integration**

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12 The United Nations Conference on the Human Environment of 1972 marks the beginning of  
13 (international) environmental policy. In this broader context of an emerging global environmental  
14 policy agenda, the European Commission, in 1973, recognized the need for taking environmental  
15 considerations into account for all planning and decision-making processes in the Community  
16 (European Environment Agency 2005a: 29). One decade later, the European Community's Third  
17 Environmental Action Programme (1982-1986) referred explicitly to EPI (European Environment  
18 Agency 2005a: 33), and Article 130r of the 1985 Single European Act stipulated that  
19 "environmental protection requirements shall be a component of the Community's other policies"  
20 (see also, e.g., Jacob et al. 2008; Pollack and Hafner-Burton 2010).  
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34 Meanwhile, at the international level, the World Commission on Environment and  
35 Development – also known as the Brundtland Commission – presented a report in 1987 which  
36 defined economic growth, environmental protection, and social equality as the three main pillars  
37 of sustainable development. The three-pillar concept of sustainable development was officially  
38 adopted at United Nations Earth Summit in 1992. The notion of EPI is closely related to this  
39 cross-section definition of sustainable development (see, e.g., Lenschow 2002a). A few months  
40 prior to the Earth Summit, the European Community members signed the Maastricht Treaty in  
41 order to found the EU, and in this context, they reiterated their commitment to EPI (Nilsson and  
42 Persson 2017: 36). Subsequently, with the Amsterdam Treaty of 1997, EPI obtained a quasi-  
43 constitutional status as it was inserted into the first part of the European Community Treaty  
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3 (Hertin and Berkhout 2003: 47). The ensuing Treaty of Lisbon, meanwhile – specifically Article  
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5 11 of the Treaty on the Functioning of the EU – stipulates that “environmental protection  
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7 requirements must be integrated into the definition and implementation of the Union’s policies  
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9 and activities, in particular with a view to promoting sustainable development.”  
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12 The EU has developed three policy instruments that are intended to implement EPI  
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14 (European Environment Agency 2005a). The first one is the European Eco-Management and  
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16 Audit Scheme (EMAS), first introduced in 1993 by Regulation 1836/93 and revised by  
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18 Regulations 761/2001 and 1221/2009. When seeking EMAS certification, the environmental  
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20 performance of both public administrations as well as private companies is documented and taken  
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22 into account. In this way, the practicing of EPI by means of internal management systems can be  
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24 assessed. In this way, the practicing of EPI by means of internal management systems can be  
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26 assessed.  
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28 The other two policy tools for delivering EPI are two specific procedures for impact  
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30 assessment (Pollack and Hafner-Burton 2010: 304; see, e.g., Franz and Kirkpatrick 2008;  
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32 Turnpenney et al. 2009). Adopted in 1985 with the Council Directive 85/337/EEC, Environmental  
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34 Impact Assessment (EIA) requires the appraisal of the effects of certain public and private  
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36 projects on the environment. According to Busch and Jörgens (2005), EIA originates from the  
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38 OECD’s *Recommendation of the Council on the Analysis of the Environmental Consequences of*  
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40 *Significant Public and Private Projects* (1974) and *Recommendation of the Council on the*  
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42 *Assessment of Projects with Significant Impact on the Environment* (1979) as well as principal  
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44 guidelines formulated by UNEP. The EU’s approach to EIA was revised in order to bring it in  
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46 line with the United Nations Economic Commission of Europe’s Espoo Convention (Directive  
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48 97/11/EC) and with the Aarhus Convention (Directive 2003/35/EC). Directive 2009/31/EC  
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50 extended the application of EIA to projects related to the transport, capture and storage of carbon  
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3 dioxide. The current version of EIA as established by Directive 2011/92/EU strengthens the  
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5 quality and rigour of the EIA procedure.  
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8 Directive 2001/42/EC introduced the third policy tool: Strategic Environment Assessment  
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10 (SEA). SEA first appeared in an interim report to the European Commission prepared in 1989  
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12 (Fundingsland Tetlow and Hanusch 2012: 15). The SEA Directive applies to a wide range of  
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14 public plans and programmes (e.g. on land use) but not policies (European Environment Agency  
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16 2005a: 58; Jordan and Lenschow 2010). The concept of SEA, however, dates back to the 1969  
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18 United States National Environmental Policy Act (NEPA), which required an environmental  
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20 assessment of proposed federal legislation (Fundingsland Tetlow and Hanusch 2012: 15). Given  
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22 the similarity between EIA and SEA, the 1969 NEPA is also seen as the origin of EIA (see  
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24 Cashmore et al. 2014: 157). In 2003, the EU adopted the SEA Protocol to the Espoo Convention,  
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26 which introduces a non-mandatory application of SEA to policies and legislation in addition to  
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28 public plans and programs (Fundingsland Tetlow and Hanusch 2012: 17).  
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33 In sum, EPI co-evolved at the European and the international level (Lenschow 2002;  
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35 Biermann et al. 2009; Oberthür 2009). The development of the three main policy tools for  
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37 implementing EPI suggests that the EU has been part of a knowledge co-production process with  
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39 IOs such as most importantly with the United Nations and benefitted from policy inventions from  
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41 other countries such as the United States. The EU did not adopt the policy directly from IOs but  
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43 constructed them in a way to reflect the EU's politically feasible level of ambition (see Jordan  
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45 and Lenschow 2010). However, this engagement with IOs allowed the EU organs to translate and  
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47 operationalize EPI through a set of policy tools at relatively low information costs without the  
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49 need to delegate definitional authority within the EU. The question that now arises is whether the  
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51 IOs have embraced the EU's version of these policy tools. Or have the IOs supplied new  
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53 knowledge that allowed the EU to rely on further internationally produced policy models and  
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3 benchmarking? Furthermore, in the case of shortfall of such knowledge, what did the delegation  
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5 logics look like inside the EU? The next sections elaborate on these aspects.  
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## 10 **International organizations and Environmental Policy Integration**

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13 In this section, we analyse strategic documents produced by IOs on EPI. We do not consult  
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15 general publications by the IOs but technical documents that outline a policy strategy or a  
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17 methodology. We searched the IOs' websites for such documents, and drawing from those, we  
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19 could identify the three most relevant publications. We searched for technical documents on both  
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21 EPI in general and specific ones on EMAS, EIA and/or SEA. We coded whether the documents  
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23 refer to the relevant EU legislation on EMAS, EIA and/or SEA as well as whether they refer to  
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25 the EU in broader terms. We constrain our qualitative assessment to six IOs that work on  
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27 different topics and are associated with different policy sectors:  
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- 31 • OECD Development Assistance Committee (DAC),
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- 33 • International Civil Aviation Organization (ICAO),
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- 35 • International Energy Agency (IEA),
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- 37 • United Nations Environment Programme (UNEP),
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- 39 • World Bank (WB), and
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- 41 • World Trade Organization (WTO).
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46 We are aware that the limited number of IOs and the non-exhaustive list of documents does  
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48 not allow for a hard empirical test of our conceptual framework. However, we are confident that  
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50 the database allows us to prove the plausibility of the conceptual argument advanced in the  
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52 previous section. We are able to see whether IOs have supplied further innovation of EPI models,  
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54 reducing the transaction costs of the EU, or the other way around.  
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3 The DAC comprises the world's major donors of Official Development Aid and therefore  
4 represents a key organization in the field of development cooperation – a policy domain that has  
5 been noticeably receptive to the concept of EPI (see, e.g., Carbone 2008; Persson 2009). In 1992,  
6 the organization published a guidance document on 'good practices' for EIA. In these guidelines,  
7 the DAC (1992: 2) recommends "aid agencies to assess the environment impact of development  
8 assistance projects as early as possible in the project planning process." This document does not  
9 include any references to publications and therefore does not mention any EU document or  
10 directive as a policy model either. The 2002 document refers to EU documents and mentions a  
11 number of EPI tools along with the need to promote inter-ministerial cooperation (DAC 2002:  
12 45). Even more specifically, the DAC (2006: 25) refers to Directive 2001/42/EC as one of the  
13 "two important international instruments [that] now prescribe the application of SEA." The  
14 second instrument the DAC mentions is the SEA Protocol to the Espoo Convention by the  
15 UNECE. In sum, we can state that with regard to SEA, the DAC indeed regards the EU to  
16 provide a policy model. The policy models/knowledge the DAC offers stems from an adaptation  
17 to the context of developing countries.

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19 In 2012, ICAO published guidelines on environmental management, but these do not  
20 mention the EU. Instead, the methodology presented corresponds to that of the International  
21 Standardization Organization. In its annual environmental report, ICAO (2016: 61) regards  
22 environmental management systems to be "in the best interest of the airport operators, the  
23 community and the natural environment." In the same report, the organization also frequently  
24 mentions the European Commission and EU legislation but not when elaborating on  
25 environmental management systems. Things look different for a guidance document on  
26 environmental assessment, which gives an overview of various approaches. The ICAO (2014: 66)  
27 states that its methodology for environmental assessment "accords closely with European  
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3 Directives and European good practice.” One cannot infer whether ICAO refers to EIA, SEA or  
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5 both, but the organization refers to the EU as a policy benchmark, though less explicitly as the  
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7 DAC, for example.  
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10 The IEA has expanded its attention to topics beyond this original focus on energy supply  
11 security and developed a ‘green’ profile. Notably, the agency recognizes the need for policies that  
12 offset the impact of energy production and use on the environment as well as the integration of  
13 energy and climate policy (see Hood 2011). The IEA (2014) refers to the Impact Assessment  
14 Guidelines published by the European Commission (2009a) in the context of the ‘Smart  
15 Regulation’ agenda (see also Radaelli 2007). In a recent strategic document on trucks and their  
16 implications for energy and environment, the IEA (2017) refers to several EU legal documents  
17 such as the European Commission’s (2011a) White Paper on Transport, in which EPI features  
18 prominently. However, this document does not refer to any explicit EPI-related directive.  
19 Overall, the strategic documents consulted demonstrate an awareness of the EU’s relevant policy  
20 guidelines, but they are not explicitly linked with the corresponding legislation.  
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35 UNEP (2009) refers to the European Commission’s (2009a) guidelines on impact  
36 assessment. The manual for green economy indicators, a programme that seeks to integrate  
37 economic growth with environmental protection, cites the European Commission’s (2011b)  
38 Roadmap to a Resource Efficiency (UNEP 2010: 62). What is perhaps even more interesting is  
39 UNEP’s awareness and utilization of EPI-related knowledge produced by European scholars on  
40 the concept of EPI and how it is applied in the EU and OECE countries. In its 2010 Yearbook,  
41 UNEP (2010: 5) refers to the empirical investigation by Jacob et al. (2008). Furthermore, when  
42 consulting UNEP’s electronic repository, one comes across many studies produced by European  
43 scholars with a EU focus on EPI such as the edited volume by Lenschow (2002b), the conceptual  
44 framework put forward by Nilsson and Persson (2003) or the review article by Jordan and  
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3 Lenschow (2010). Therefore, in the case of UNEP, the EU's role as a source of EPI-relevant  
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5 knowledge and a policy model is manifest.  
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8 The literature has attributed to the WB a significant role in the diffusion of EIA (see  
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10 Busch and Jörgens 2005) and SEA (see Fundingsland Tetlow and Hanusch 2012; Cashmore et al.  
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12 2014). Has the EU served as a model for the WB's approach to EIA and/or SEA? In the  
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14 guidelines published in 2012, Naber (2012) refers to the European Commission's (2009b) report  
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16 on the application and effectiveness of EIA, which indicates that the European model serves as a  
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18 benchmark. In the same guidelines, Loayza (2012) refers to the EU's directive when detailing  
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20 how SEA should be applied, which support the above finding that the EU's serves as a policy  
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22 benchmark. The WB (2005) carefully outlines and discusses the lessons to be learned from  
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24 various conceptualizations of SEA, including the EU's approach. We can reiterate our  
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26 observation for EMAS, which is presented by Lombardo (2012) in the WB's guiding document –  
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28 again, the EU is prominently cited as a policy model. Altogether, we can state that the EU has  
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30 inspired the WB's EPI tools.  
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36 Gabler (2010) offers a compelling discussion of the relationship between the WTO and  
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38 EU in terms to EPI. Drawing on legal documents and using a theoretical perspective that  
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40 concentrates on social learning, Gabler's study alludes to a discrepancy in the WTO's and the  
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42 EU's respective perspectives on EPI. In a 2004 key publication, the WTO (2004) mentions EIA  
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44 as a policy tool for integrating environmental concerns into trade concerns, but it does not refer to  
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46 the EU as a model for it. One year earlier, in WTO's Committee on Environment and Trade  
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48 (2003) also elaborated on EIA yet did not refer to the EU specifically. The EU is mentioned in  
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50 the WTO documents, not as a policy model to be followed, but as a model from which the WTO  
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52 wants to differentiate itself. Moreover, the WTO's (2011) understanding of EPI is one where  
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3 environmental concerns should be ‘coordinated’ in order not to prevent international trade (see  
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5 Nilsson and Persson 2017; Persson et al. 2018).  
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7 \*\*\*Table 1 about here\*\*\*  
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12 Table 1 summarizes the empirical insights provided by the analysis of the documents of  
13  
14 the six IOs. In sum, we can state that the EU serves as a point of reference for the actual  
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16 implementation of the EPI tools that they initially promoted. All this demonstrates that the EU is  
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18 transnational agent of knowledge transfer. While it is not the only organization or jurisdictions  
19  
20 taken into consideration when formulation policy recommendation, we can confirm that all IOs  
21  
22 analysed somehow positioned themselves on the EU’s policy tools for attaining EPI. With regard  
23  
24 to the three policy tools of interest, EIA, EMAS and SEA, the knowledge advanced by the IOs  
25  
26 for further developing EPI into additional implementation practice is limited. In most cases, the  
27  
28 guidelines set out refinements that take into account the context in which the EPI tools are to be  
29  
30 implemented. Most importantly, in this context, the DAC and the WB consider the limited state  
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32 capacity of developing countries and reflect on how EPI can be attained given this constraint.  
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#### 40 **The knowledge transfer from the international organizations to the EU**

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42 As shown above, the international level served as a stimulus for the EU to conceptually embrace  
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44 EPI and was also influential for the EU’s adoption of EIA (in 1985), EMAS (in 1993) and SEA  
45  
46 (in 2001). The EU’s specific design of these policy instruments has been noted by various IOs,  
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48 and they provide policy models that are either directly promoted by the IOs or are seen as a  
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50 benchmark against which the IOs position their own approaches. Do the strategic documents  
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52 published by the EU refer to IOs?  
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3 In one of its first communications on this topic, the European Commission (1998) refers  
4 to the Kyoto Protocol to the United Nations Framework for Climate Change but as an opportunity  
5 structure for implementing EPI and not as a source of a policy model. In the next communication,  
6 the European Commission (1999) acknowledges the DAC's indicators for sustainable  
7 development as a model that could be taken into consideration for attaining EPI. Later, the  
8 European Commission (2004) refers to the Kyoto Protocol and the United Nations World Summit  
9 on Sustainable Development held in 2002 as the two international processes that entail a need for  
10 implementing EPI. More importantly, the European Commission refers to the OECD's (2003)  
11 recommendation for integrating environmental policy with lending policy. The EEA (2005a,  
12 2005b) refers to the United Nations Development Programme (1998) conceptualization of  
13 capacity for management tools and the OECD's (2002) recommendations for the designing  
14 policies for sustainable development. Furthermore, the EEA (2006) refers to the OECD's (2003)  
15 guidelines on agri-environmental policies.

16  
17 In sum, the documents produced by the EU indicate that it is open to transferring  
18 knowledge from IOs (see also European Commission 2009a). Nonetheless, the EU has produced  
19 a significant amount of knowledge in the stages of actual implementation of the EPI policy tools  
20 itself by means of sideward and downward delegation as we will see in the subsequent sections.  
21 We interpret this behavior to be motivated by the nature of the knowledge and policy models  
22 provided by IOs. Previous research has shown that IOs such as the OECD have contributed to  
23 making EPI implementable by developing indicators that assess the relationship between  
24 environmental and sectoral activities (Nilsson et al. 2007: 5). However, few (new) policy models  
25 are offered by IOs for translating the designed tools in actual administrative practice. For  
26 example, REMOVED (2013) shows that the OECD tends to have an impact only on the adoption  
27 of regulatory impact analysis. In the successive policy stages, however, the EU needs to face

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3 higher transaction costs and produce the policy knowledge itself by means of delegating the  
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5 definitional authority over EPI.  
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### 10 **Delegation of definitional authority within the European Union**

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12 Given the limited availability of new knowledge supplied by IOs for going beyond the design of  
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14 EPI in policy tools, the European Council (1998) invited “all relevant formations of the Council  
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16 to establish their own strategies for giving effect to environmental integration and sustainable  
17  
18 development within their respective policy areas.” The resulting Cardiff Process consisting of a  
19  
20 series of sectoral Council meetings, documents, and studies was intended as forming the basis for  
21  
22 transforming EPI into an *implementable* policy tool (Hertin and Berkhout 2003: 48) beyond EIA  
23  
24 and EMAS. However, the sectoral Councils produced mixed results with regard to the goal of  
25  
26 developing a fully-fledged strategy for implementing EPI by means of a comprehensive policy  
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28 toolbox (see Wilkinson et al. 2002). In its own review report, the European Commission (1999:  
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30 6) noted that the Council bodies had made uneven progress, achieving less than was expected.  
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32 More specifically, the Commission was critical of the little progress made on understanding the  
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34 origins of environmental problems and the definition of sector-specific targets for attaining EPI.  
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40 The goal of defining strategies for the implementation of EPI remained on the agenda of  
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42 the subsequent European Council meetings. At the European Council in the Spring of 2003, the  
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44 Commission had to provide an annual stocktake of the Cardiff Process at each Spring summit  
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46 (Herodes et al. 2007: 13). In the ensuing report, presented in June 2004, the European  
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48 Commission (2004: 37) concluded that their analysis “points to a number of weaknesses in  
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50 implementation” and affirmed “the need to improve the consistency of strategies across Council  
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52 formations and for greater emphasis on good practice in terms of content and implementation.”  
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3 Despite the European Council's pronouncement in 2003, the subsequent Spring Councils of 2005  
4 and 2006 did not elaborate further on the implementation of EPI (Herodes et al. 2007: 13).  
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8 The decreased level of attention from 2003 onwards entailed a sideward shift in the  
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10 definitional work on EPI from the sectoral Councils to the European Environment Agency  
11 (EEA). The EEA began to summarize the various outputs of the Cardiff Process and to work  
12 systematically on the development of criteria and indicators for assessing the integration of  
13 environmental concerns into other policy domains (see EEA 2005a, 2005b). As shown in the  
14 previous section, the EEA took also into account strategic documents by the OECD, but the  
15 evidence base consulted was clearly dominated by the EU documents and documents produced  
16 by or on the member states. A particularly well developed output of the EEA's activities are the  
17 criteria it established for the integration of environmental concerns into the Common Agricultural  
18 Policy (see, e.g., Alons 2017). In that document, the EEA (2006) demonstrates a comprehensive  
19 knowledge of the various pieces of legislation and documents produced by the European  
20 Commission and the European Council, as well as by academics and researchers. Drawing on this  
21 mix of policy and academic documents, the EEA devised a detailed framework for effecting EPI  
22 in agriculture policy. Of all EU-level guidelines on EPI, the one published by the EEA in 2006  
23 likely represents the most systematic approach to transforming EPI into an implementable policy  
24 tool.  
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44 Upon realizing the limited progress made by the sectoral Councils, the Commission  
45 (1999: 6) commented that "some Member States have good experience in environmental  
46 integration both in administration and policies as well as in the developing indicators. Exchanges  
47 on best practice already take place, but much more could be done." A few years later, the  
48 Commission (2004: 36) reiterated its call for "regular exchange of good integration practice at  
49 [the] national, regional and local level" in order to put EPI into effect. It is questionable whether  
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3 the Commission's statement can be substantiated on empirical grounds. On the one hand, the  
4 various documents produced by the Commission or the EEA refer to national strategies and their  
5 assessments such as United Kingdom's Department of Environment, Food and Rural Affairs (see  
6 EEA 2005a). On the other hand, academic observers such as Jordan and Lenschow (2010: 156)  
7 suggest that not many member states experimented with policy tools different from appraisal (see  
8 also Jacob et al. 2008). Another observation that supports the latter interpretation is that EU did  
9 not establish a platform where the member states could have shared their policy models and  
10 learned from each other such as in the case of the Open Method of Coordination – a soft form of  
11 governance (see Herodes et al. 2007). From this perspective, the European Council and the  
12 Commission had little choice but to delegate the definitional authority sideward to the EEA that,  
13 despite the high transaction costs, allows for monitoring of the actual implementation among EU  
14 member states through process of policy evaluation and benchmarking. Since 2005, EEA is in  
15 charge of monitoring the implementation of EPI by utilizing four questions to evaluate the extent  
16 to which member states reflect environmental policy integration in their daily work. The four  
17 questions of EEA are the following: First, do regular planning, budgetary and audit exercises  
18 reflect EPI priorities? Second, are environmental responsibilities reflected in the administration's  
19 internal management regime? Third, is there a strategic department/unit to guide and support  
20 EPI? Fourth, are there mechanisms to ensure environment/sector coordination and  
21 communication, e.g. between departments and between levels of governance?  
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47 This supervised decentralization has enhanced the benchmarking of EPI implementation.  
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49 In the Seventh Environment Action Programme, the European Commission (2014: 71)  
50 considered that “progress made to date, while commendable in some areas, has not been  
51 sufficient to reverse all negative trends.” Following up on this assessment, in 2017, the  
52 Commission presented a comprehensive report regarding the implementation of environmental  
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3 policy in the member states, and EPI is among the evaluation dimensions covered (European  
4 Commission 2017). The report offers a detailed discussion of EPI in general and the innovative  
5 strategies developed by some of the EU member states. For example, Italy is heralded as a good  
6 policy example since its government has taken steps towards the inclusion of the environmental  
7 dimension into budgetary and financial issues, as well as the Netherlands for its largest pension  
8 fund for having adopted a policy for sustainable investment. The European Commission further  
9 highlights the Inter-Ministerial Conference on Sustainable Development in Belgium launched in  
10 2012, which gathers relevant ministers from the federal, regional and local levels. The report also  
11 presents the Spanish Network of Environmental Authorities, which is a technical forum of  
12 environmental authorities that fosters EPI and its application to cohesion policy. The European  
13 Network of Managing and Environmental Authorities, set up in September 2004, draws on the  
14 Spanish model (European Commission 2017: 744).

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31 After having tried (and failed) to produce the relevant knowledge and better policy  
32 models, the European Commission has delegated the definitional authority over EPI downward to  
33 the member states and explicitly identified models that it considers to advance the policy toolbox  
34 for EPI. The fact that the Commission included EPI as an evaluation dimension and highlighted  
35 positive examples may unleash mutual learning among the EU member states. According to our  
36 theoretical argument, the European Commission has chosen this delegation trajectory because  
37 how knowledge and policy models – even if only few – have become available at that political  
38 level, which promises better policy outcomes and lower transaction costs compared to sideward  
39 delegation.

## 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 **Conclusion**

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3 In this study, we claimed that the EU is flexible in choosing different sources of policy  
4 knowledge and different trajectories of delegating the authority to define abstract policy concepts.  
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6 The international supply of policy-relevant knowledge or policy models reduces the transaction  
7 costs, determining whether the EU delegates the definitional authority sideward or downward. In  
8 terms of transaction costs, transferring knowledge or policy models from IOs should be preferred  
9 over transferring knowledge or policy models from the member states and even more so by  
10 passing this task (and therewith the authority) on to other EU organs. If the IOs and the member  
11 states do not offer benchmarks, sideward delegation will be trajectory of choice. However, the  
12 EU will examine options for shifting to one of the more transaction-efficient delegation  
13 trajectories if they supply knowledge or policy models.  
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26 Our argument contributes to the conceptual framework put forward by Maggetti and Trein  
27 (this issue) by introducing the notion of transaction costs and demonstrating empirically that  
28 dynamics of multilevel governance claimed by the authors. Furthermore, we contribute to the rich  
29 corpus of research on multilevel governance by using a market-like notion of governance  
30 arrangements: venues have to become feasible for delegation by supplying knowledge and policy  
31 models, and once they do so, the ultimate decision on the delegation trajectory will depend on the  
32 respective transaction costs incurring. This dynamic conceptualization of multilevel governance  
33 complements the institutionalist perspectives that stress path-dependencies and routines  
34 concerning problem solving. At the same time, our conceptual model takes into account  
35 considerations regarding the capacity to invent and learn by comparison, which is often discussed  
36 in other literatures.  
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51 To demonstrate the plausibility of our model empirically, we drew from the vast literature  
52 on EPI (see Jordan and Lenschow 2010). By merging the international level with the EU policy  
53 processes in a coherent conceptual model, we are making a novel contribution to the academic  
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3 community working on environmental policy. Indeed, the literature that examines EPI and how it  
4 is addressed in international environmental regimes tends to focus on that level and tailors their  
5 findings towards an audience in International Relations. Other strands of EPI research tend to  
6 discuss in detail and in a critical manner how it is put into practice and how it performs. While  
7 the corresponding literature is aware of the Cardiff Process and the innovative character of that  
8 process, it tends to leave out the perspective of the member states. Lastly, single-case studies of  
9 EPI provide valuable insights into the concrete design of EPI tools and domestic politics, but they  
10 pay limited attention to the European and/or the international level. Here, we did not only  
11 integrate the processes taking place at different political levels, but we also discussed how they  
12 are causally related to each other. While acknowledging that we could not offer a hard empirical  
13 test of our theoretical argument but rather an initial plausibility test, it is formulated in an explicit  
14 manner and ready for falsification by future research. To this end, a systematic tracing of the  
15 processes at the individual stages of policymaking could help in learning how accurate our  
16 theoretical argument is and whether it could benefit from refinement or modification.

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19 In closing, we would like to state our awareness that the above assessment regarding the  
20 'success' of defining EPI deviates from the dominant conclusions in the literature, which tend to  
21 be more negative. Referring to Candel (2017), however, we believe that it is important to have a  
22 realistic sense of what is attainable with regard to EPI. Considering the ambiguity of the concept  
23 and the volatility in public and political attention paid to it at the various levels of government,  
24 we believe that progress has indeed been made concerning the implementation of EPI, precisely  
25 because of the institutional dynamics that emerge from interrelated problem-solving and  
26 problem-generating processes. Perhaps the most remarkable observation is that EPI is still on the  
27 political agenda of the EU and IOs, and that the debates on EPI concentrate on how it can be put  
28 in action and attain tangible goals. The fact that these debates continue to exist is another

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3 indicator for the effectiveness of multilevel governance and the constant institutional dynamics of  
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5 work therein.  
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For Peer Review

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Table 1: Overview of findings for selected international organizations

	<b>DAC</b>	<b>ICAO</b>	<b>IEA</b>	<b>UNEP</b>	<b>WB</b>	<b>WTO</b>
Year founded	1960	1944	1974	1972	1944	1995
Membership	OECD	Universal	OECD	Universal	Universal	Universal
Sector	Development	Transport	Energy	Environment	Development	Trade
Referral to EU policy tools	EIA; SEA	Environmental assessment	EIA	EIA; SEA	EIA; SEA; EMAS	No
Referral to EU	Yes	Yes	Yes	Yes	Yes	Yes
Remarks	Land use planning and management; community-based natural resource management; integrated capacity development; inter-ministerial cooperation	Referral to the EU in the 2017 annual report		Referral to EU research		EIA mentioned, but no EU referral; different understanding of EPI

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