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Networks for a Green Europe

An Analysis of the Network Approach to Sustainability Governance in the European Union

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Declaration of originality

I hereby declare that the present work is original and has not already been submitted, totally or in part, for the purposes of attaining an academic degree in other Italian or foreign universities. I also declare that all the materials used during the preparation of the thesis have been explicitly indicated in the text and in the section "Bibliography" and that any textual citations can be identified through an explicit reference to the original publication.

Signature Poll Janisch

Abstract

Concerns regarding effective governance in the realms of environmental protection and sustainability have taken centre stage in the EU as already reflected in the Commission's 2001 White Paper, advocating for new modes of governance. This thesis explores the potential of network governance as an instrument for green governance in the EU. Existing literature has examined this mode of governance from various angles, but inconclusive results persist, along with the lack of comprehensive comparative studies. The present work aims to bridge this gap by conducting an in-depth analysis of the EEAC Network and the EIONET. The overarching goal is to contribute to the understanding of the nature of networks and their effectiveness in EU sustainability governance. Taking a mixed-method qualitative approach using semi-structured interviews and document analysis, this study looks at the networks' structures and decision-making processes, as well as the functions they perform. Despite marked structural and governance differences between the EEAC Network and the EIONET, common factors influencing their behaviour become apparent, including central steering roles, resources, national institutional set-ups, participant engagement, and EU-level policy and global developments. Examining contributions and limitations on how networks promote EU environmental policy objectives related to sustainable development, this research highlights the importance of communication and trust, stakeholder inclusion, flexibility, access to decision-makers, goal consensus, and the aggregation and use of knowledge and resources. These insights enhance our comprehension of the role of networks in EU sustainability governance, shedding light on both potentials and associated challenges.

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List of abbreviations

APS Annual Plenary Session

AWP Annual Work Plan/Programme

CEAP Circular Economy Action Plan

CNS Coordination, Networks and Strategy

CAP Common Agricultural Policy

CoM Covenant of Mayors

DG Directorate-General

DG CLIMA Directorate-General for Climate Action

EAP Environment Action Programme

EC European Community

EEA European Environment Agency

EEAC European Environment and Sustainable Development Advisory

Councils

EEC European Economic Community

EIONET European Environment Information and Observation Network

EG EIONET Group

EGD European Green Deal

EP European Parliament

EPA Environmental Protection Agencies

EPI Environmental Policy Integration

ERN European Regulatory Network

ESABCC European Scientific Advisory Board on Climate Change

ESDN European Sustainable Development Network

ETC European Topic Centre

EU European Union

FRDO-CFDD Belgian Federal Council for Sustainable Development

IMPEL European Network for the Implementation and Enforcement of

Environmental Law

LULUCF Land Use, Land-Use Change and Forestry

MAWP Multi-Annual Work Programme

MB Management Board

NAO Network Administrative Organisation

NEPI New Environmental Policy Instrument

NDFC National Data Flow Coordinator

NFFT Hungarian National Council for Sustainable Development

NFP National Focal Point

NGO Non-governmental Organisation

NPM New Public Management

NRC National Reference Centre

OMC Open Method of Coordination

QMV Qualified Majority Voting

SAC Special Areas of Conservation

SDG Sustainable Development Goal

SDS Sustainable Development Strategy

SEA Single European Act

SEAP Sustainable Energy Action Plan

SPA Special Protected Area

SPD Single Programming Document

TRN Transgovernmental Regulatory Network

UN United Nations

VNR Voluntary National Review

WFD Water Framework Directive

WG Working Group

Introduction

"[H]umanity is not yet doing enough to tackle climate change. But why is it so difficult for humankind to tackle this issue? ... The world is still lacking a robust governance structure to ensure that every country adheres to the Paris Agreement. So, all eyes are on the biggest emitters because this is as close as we get to effective governance" (Timmermans, 2023). These words of the recently resigned Executive Vice President of the European Commission Frans Timmermans demonstrate the centrality of the European Union (EU) and the G20 in tackling climate change through the appropriate organisational structures. In her recent State of the Union speech, Commission President Ursula von der Leyen praised the progress made in the EU's most ambitious policy framework for the environment, the European Green Deal, while simultaneously highlighting the importance of competition and the industry in balance with social needs: "The core aim will be to support every sector in building its business model for the decarbonisation of industry... But this is just as much about the people and their jobs of today" (von der Leyen, 2023). Yet, environmental organisations take up a rather sceptical position, emphasising concealed setbacks, delays and broken promises in von der Leyen's speech about the delivery of the Green Deal (Vela, 2023). Hence, in EU environmental governance, it is as much about balancing the ecological, economic and social spheres for sustainable development, as it is about using the right tools to do so, therefore finding the appropriate means to govern the environment and sustainability.

Already over two decades ago, the EU sought new tools and mechanisms to effectively govern complex cross-sectoral challenges such as sustainable development in its multi-level and expanding governance system. In fact, increased differentiation among EU member states, weak central authority, and a diminishing inclination of domestic policy implementation in a top-down fashion, have compelled the EU to consider alternative approaches for ensuring adequate policy coordination (Schout & Jordan, 2005). This recognition is manifested in the Commission's 2001 White Paper on Governance, which proposed the adoption of new instruments in light of the limitations of conventional hierarchical governance methods such as regulations and laws (Wincott, 2001). By taking a more flexible approach to EU policymaking, the White Paper orients itself along the principles of 'good governance' – openness, participation, accountability, effectiveness, and coherence (European Commission, 2001). This viewpoint is further

expressed in the Commission's willingness to adopt new modes of governance, less based on central control and more on network-led coordination (Schout & Jordan, 2005). A network governance approach describes, in a few terms, the collaboration and cooperation of multiple actors across various levels of governance in a rather horizontal setting (Torfing & Sørensen, 2014).

Simultaneously with the emergence of new modes of governance in the context of rising coordination challenges in the EU, new ambitions in light of growing environmental pressures have come on top of the EU's policy plate. Sustainable development has been increasingly promoted since the 1990s and from then, the Union has been the global leader in environmental policymaking. It is by no means coincidence that new policy instruments and governance approaches evolved while also green policy initiatives moved more toward the centre of political attention. In other words, softer and more flexible instruments were sought to govern environmental initiatives, further expressed in the EU's Sustainable Development Strategy (SDS) and Lisbon Strategy, highlighting the important role of networks from institutional and procedural perspectives, which particularly refers to cross-sectoral and territorial integration, but also participatory practices and high political commitment (Domorenok, 2019). In this sense, networks have gained the reputation of "rapidly becoming the most widespread and effective mode of international governance" (Slaughter, 2004, p. 185). The main characteristics of governance networks are their increased division of sovereignty, a multi-level institutional setting and a stronger horizontal and collaborative way of interaction and thus policymaking (Jensen et al., 2014; Maggetti & Gilardi, 2014; Torfing & Lewis, 2011). Considering these features, networks appear to be a suitable candidate for governing sustainable development, as the latter's governing principles can be summarised in cross-jurisdictional coordination (EU, national, regional, local), actor inclusiveness (public authorities, civil society, private sector etc.), and cross-sectoral integration (environmental, economic, social, etc.) (Domorenok, 2019).

This leads to the main goal of this thesis, namely, to shed light on the nature and effectiveness of networks in environmental and sustainability governance in Europe. This is a relevant issue to be addressed since the literature appears to be inconclusive on the matter, mainly due to a lack of generalisable results. The latter is particularly attributable to the dominance of single case studies in the literature (e.g., Adelle et al., 2015; Boumans

& Ferry, 2019; Migliorati, 2017), hence demanding further in-depth studies and increased comparative analyses of networks about governance structures, compositions, decision-making processes, functions, and behaviour. Moreover, since in the EU context networks should especially enhance policy coordination, another objective is to understand how they can effectively contribute to the achievement of sustainable development policy objectives. This goal is specifically of practical value as it guides stakeholders on what aspects are required to effectively coordinate the network towards policy goals.

Accordingly, two relevant European transnational governance networks, operating on various levels of governance, including numerous actors and stakeholders, and acting in line with EU policy objectives related to the environment and sustainable development are considered for this analysis. On the one hand, the European Environment and Sustainable Development Advisory Councils (EEAC) Network gathers independent national and subnational European advisory bodies with the goal of enhancing these councils' advice they issue to their governments about climate change, the environment and sustainable development. By enhancing exchange and cooperation among variative stakeholders in the councils and liaising their work with EU policies, the EEAC Network is a relevant actor in governing sustainability in Europe. On the other hand, the European Environment Information and Observation Network (EIONET) is a partnership network between the European Environment Agency (EEA) and its national EIONET partners, consisting of environmental institutions and organisations across Europe. The EIONET seeks to give policymakers the best available knowledge about the European environment by developing and delivering data and information under consideration of current EU priorities and objectives. Being the largest provider of environmental data in Europe, its relevance is undoubtedly considerable.

Despite both networks' size, historical presence and influence in European policymaking, literature addressing their governance remains strikingly scarce. Hence, the research gap that I want to fill with this thesis is twofold. On the one hand, as discussed above, conducting a comparative analysis should allow for generalisable results in network governance research. On the other hand, a first in-depth study tackling the objectives outlined previously, will contribute to a solid fundament of two relevant networks in the European arena and enhance the understanding of the role of networks in sustainability governance in Europe. Therefore, I use a mixed-method qualitative

approach for this work. Semi-structured interviews with key figures of both networks give valuable and new insights about the behaviour, decision-making processes, interactions and role in sustainability governance of these networks. Further, a qualitative document analysis of reports, work plans, strategies, opinions, and statutes of the networks complements the information retrieved from interviews with a particular focus on the governance structure, the network composition and characteristics, as well as activities carried out in relation to EU green policy objectives. Limitations to this approach particularly consist in the continued lack of mixed-method qualitative and quantitative studies in network governance research and the reduced number of two networks considered in this analysis.

This thesis is structured as follows. The first chapter reviews the literature about networks and environmental governance in the European Union. Specifically, its first section focuses on environmental and sustainability governance in the EU, giving an overview of historical developments, principles pursued, and main governance architectures adopted so far. This is followed by a section focusing on network governance literature in Europe and builds a theoretical framework for this thesis, with definitions and principles to be considered. Subsequently, studies examining networks in the environmental sphere are looked at in order to understand which angles have been taken, what kind of networks have been observed and what literature has concluded so far. The second chapter discusses in detail the methodology of this research, including research questions and objectives, the case studies selected, and the research design. The third chapter examines thoroughly the EIONET and the EEAC Network in terms of their characteristics, composition and structure, functions, and behaviour. The chapter concludes in a separate section comparing the networks regarding their governance structure and, crucially, factors influencing both their behaviour. Chapter four focuses specifically on EU policy objectives relating to the environment and sustainability and what role these networks play in promoting their achievement, concluding with aspects central to the effective functioning of networks in this regard.

Chapter I Networks and environmental governance in the EU

1.1. Environmental and sustainability governance in the EU: developments, principles, architectures

Environmental governance has been an evolving process in the EU, having undergone gradual integration and expansion up to this day. A look at the evolution of environmental integration into the EU's policy and governance approach explains the foundation of today's dealing with the environment. Particularly important for this development were the 1980s and 1990s, which introduced a range of legal and conceptual novelties. Taking however a step backwards, it is interesting to observe how environmental issues had barely been slightly addressed and are now at the core of the Union's policymaking. In the founding years of the EEC, particularly in the 1950s and 1960s, environment and climate were not even marginal issues of attention, the focus was on security and economic rehabilitation and stabilisation, for which the six founding countries sought cooperation (Selin & VanDeveer, 2015). The three founding treaties signed in the 1950s did not contain any base for the development of environmental competence in the EEC. Environmental policies adopted in this period (i.e., few ad hoc rules such as on chemicals or other actions for the reduction of noise and vehicle emissions) were based on aspects relevant to the common market, which led to an uncoordinated policy approach on the matter (Jordan, 1999; Weidenfeld & Wessels, 2016). Nevertheless, the roots of environmental policy integration can be found in the Rome Treaty, specifically with reference to the preamble where it is stated that the goal is the improvement of living conditions in the Community – a phrase that was often referred to not only in environmental policies which emerged in the first decades since the Community's founding but also in the overall EU integration process with the emergence of new treaties.

An important step forward marked the year 1972 with the first Earth Summit of the United Nations held in Stockholm, after which the leaders of the then nine member countries of the newly enlarged EEC met in September 1972 in Paris, aiming to establish a more effective and coherent approach in the community regarding environmental policymaking (Selin & VanDeveer, 2015). The declaration which resulted from the summit stated that "the Economic expansion is not an end in itself ... it should result in an improvement in the quality of life as well as in the standards of living ... particular

attention will be given to intangible values and to protecting the environment, so that progress may really be put at the service of mankind" (Bulletin EC, 1972). This statement seems obvious nowadays but was at the time a wholly new political opinion.

The Commission subsequently drew the first Environmental Action Programme (EAP, 1973-1976), which for the first time set guidelines for the development of a common environmental policy, though without any legal obligations. The programme was above all a general and broad non-binding framework of objectives and principles with a modest number of priority areas to be a target for pollution reduction, with special attention to water and waste (Jordan, 1999). The second EAP (1977-1981) was essentially a continuation of the first, with a widened scope of intervention areas. Although some framework directives were decided, the practical success of these programmes is critical, since the initial enthusiasm for environmental action declined significantly due to the economic recession periods from the mid-1970s to the beginning of the 1980s (Hey, 2007). Environmental policy at the time evolved mainly unsystematically, mostly shaped by momentary economic, political and social circumstances (Selin & VanDeveer, 2015). The third EAP (1982-1986) linked environmental policies to the internal market (Hey, 2007) and particularly emphasised prevention and a thorough approach based on emission reduction (Orlando, 2013).

Moreover, the Directorate General (DG) for Environment, Nuclear Safety and Civil Protection was established and the European Court of Justice decided in 1985 that environmental protection was an essential EEC objective, which also led to several infringement procedures against member states not complying with the community's environmental law (Selin & VanDeveer, 2015; Weidenfeld & Wessels, 2016). Indeed, starting from the mid-1980s several member states felt the pressure to tackle environmental issues caused by cross-boundary environmental issues such as acid rain, which increased collaboration in the field on the European level (Knill & Liefferink, 2021).

The SEA in 1987 meant a significant improvement in the quality of environmental legislation, although the establishment of a single market was rooted in economic motives. The SEA anchored European environmental policy in primary law, which meant an independent legal title (Articles 191-193, now Articles 174-176 TEU) with an added external relations competence in the area. With the establishment of the single market,

environmental protection was committed to a high level of protection. Additionally, the principles of precaution, prevention, origin, integration, subsidiarity and polluter pays were formally added to the environmental title (Weidenfeld & Wessels, 2016). The formal changes concerning the decision-making process in the context of the internal market – particularly the enhancement of the EP's role as well as the shift from unanimity to QMV in the Council – strengthened the institutional impact of the environmental title (Orlando, 2013). In sum, the SEA established for the first time the legal basis for EU environmental policy and defined the overarching goals and principles which guide the activities in the field, while also the Community's internal and external actions were strengthened in environmental policy under the Act (Knill & Liefferink, 2021). Besides the legislative integration of environmental policy, the institutional side was also strengthened with the foundation of the European Environmental Agency in 1990 (Orlando, 2013).

The fourth EAP (1987-1992), in line with the new policy approach, recognised environmental regulation as a pillar for "lasting economic and social progress" (quoted by Orlando, 2013). Thus, it proposed a more integrated policy approach, also by looking at the impacts of economic sectors on the environment. New policy instruments, such as taxes, subsidies or tradable emissions permits, found their first application in the environmental sector (Hey, 2007). Moreover, the EAP, as well as the subsequent one, drew attention to the shortcomings of previous policy approaches (mainly related to policy quality and emissions orientation) and implementation obstacles (Hey, 2007; Selin & VanDeveer, 2015).

The Maastricht Treaty (1993) introduced sustainable growth as a principal goal of the European Union. With the formal creation of the EU, not only the institutional framework for an economic and monetary union was established, but also strengthened authority to individual policy areas was given, which included consumer protection, health, education and culture, research, technology as well as environmental protection – all the areas enjoyed a high level of protection (Knill & Liefferink, 2021). Maastricht further strengthened the Environmental Policy Integration (EPI) Principle, which was first introduced with the SEA. It aimed for the first time to connect the three dimensions of environmental protection, economic competitiveness and social development and thus to guide toward sustainable development (Schout et al., 2019). The Amsterdam Treaty (1997) further specified the principle and gave it a much higher profile by linking it to

sustainable development (Herodes et al., 2007). In other words, sustainable development became a fundamental objective of European integration, being a guiding aim across all policy sectors according to the EPI Principle, with enhanced intersectoral coordination. Put differently, this new governance mode, called the Cardiff Process and introduced shortly after the signing of the Amsterdam Treaty, aimed at implementing the newly established legal commitment to EPI at the EU level (EU-EPI). Importantly, this novel approach targeted to leverage the coordination capabilities of networks to realise EU-EPI objectives (Jordan & Schout, 2006). Nonetheless, since the EPI Principle's introduction, its forcefulness remains critical. As Jordan and Lenschow (2019) have pointed out, the most critical aspect is to what extent environmental protection is given in the various sectors, meaning how much the environment is given priority in practice under EPI. Moreover, due to its complexity, there is no "best practice" what concerns EPI from a governing perspective, which particularly concerns the lack of incorporation of EPI into each part of the policy cycle (Schout et al., 2019).

Besides, the Maastricht Treaty gave the EAPs a formal legal basis, being prepared by the Commission and ratified by the EP and the Council through co-decision procedure (Selin & VanDeveer, 2015). By the end of the 1990s, the environmental acquis comprised over 500 legislative items, being one of the fastest-growing policy areas of the EU. Indeed, from 1989 to 1991, more environmental statutes were adopted than in the previous 20 years altogether (Jordan, 1999).

The fifth EAP (1993-2000) was strongly oriented along international environmental and sustainable development goals and was correspondingly ambitious. Additionally, the Programme established an approach of "shared responsibility" meaning that an increasing number of actors and stakeholders actively participate in the intervention on various levels of governance (Orlando, 2013). Popular examples of policies on the matter are the Air Quality Framework Directive and the Water Framework Directive. The 1990s also brought the introduction of so-called New Environmental Policy Instruments (NEPIs) – emerging from the need for more efficient tools – which "include market-based instruments, voluntary agreements, eco-label schemes and other self-regulatory tools which relied on the voluntary participation of economic operators or consumers" (Orlando, 2013, p. 8). These tools were introduced additionally to the traditional top-down instruments such as regulations and should facilitate a more cooperative approach

to environmental governance with more flexible and softer approaches in addition to the legally binding instruments (Delreux & Happaerts, 2016). This is also reflected in the much-cited 2001 'White Paper on Governance' published by the European Commission, aiming at advocating for increased transparency, citizen participation, and accountability in the decision-making processes (European Commission, 2001).

At the beginning of the 21st century, particularly two strategies are worth mentioning when it comes to environmental and sustainability governance. On the one hand, the EU Sustainable Development Strategy aimed to adopt a synchronised approach to policymaking, ensuring that the formulation and adoption of policies consider their economic, social, and environmental impacts. The Lisbon Strategy, on the other hand, focused mainly on economic and social dimensions, targeting jobs and growth. Yet, both strategies sought, under a new governance architecture, to build a strategic framework which shall define objectives, identify tools for their achievement, as well as develop monitoring mechanisms. This also highlighted the important role of networks from institutional and procedural perspectives, which particularly refers to "horizontal (cross-sectoral) and vertical (territorial) integration, participatory practices and high political commitment of all concerned" (Domorenok, 2019, p. 13). A coordinated European approach to the implementation of these strategies was, however, rather absent since the actual implementation of EU guidelines was entirely left to the member states (Domorenok, 2019).

Under the Lisbon Agenda, the main framework under which policy implementation on the domestic level should be facilitated was the so-called Open Method of Coordination (OMC), which was established as a tool of soft governance. The OMC was created along four principles based on i) fixing guidelines combined with specific timetables for achieving set short, medium and long-terms goals; ii) establishing quantitative and qualitative indicators and benchmarks tailored to the needs of member states and sectors to compare best practices; iii) transposing European guidelines into national and regional policies by defining specific targets and adopting measures which take into consideration national and regional differences; iv) regularly monitoring, evaluation and peer review to facilitate mutual learning processes (European Council, 2000). However, criticism regarding the OMC has increased, particularly related to its efficacy, which primarily stems from its lack of political significance at the national level

and insufficient control mechanisms (The European Parliamentary Research Service, 2014).

Efforts to enhance consistency in the EU governance approach related to the two strategies include the revised SDS, which shall complement the Lisbon Strategy to ensure a coherent approach toward more sustainability. However, scholarship has shown that the envisioned horizontal complementarity of the two strategies didn't materialise in daily governance routines, and the coherence in policy and governance structures across EU countries for the SDS implementation was considered low (Jordan & Lenschow, 2008; Steurer & Berger, 2011). This can be attributed to two different governance architectures of the SDS and the Lisbon Strategy, the latter having witnessed strong coordination, while the former was implemented less structured with a lower political salience and a loose mechanism of intergovernmental coordination (Domorenok, 2019).

Yet along with the SDS, the sixth EAP (2002-2012) identified themes and principles, and a framework of objectives was developed, which were to be specified in the key areas. The initial point thereby was the identification of so-called persistent environmental problems, such as climate change, biodiversity loss and overconsumption (Hey, 2007). Climate change was a main emphasis with the aim of mainstreaming emission reduction into various policy areas and, along with this, NEPIs were increasingly promoted. With the increased salience of climate change, the Directorate-General for Climate Action (DG CLIMA) was established in 2010, along with the formalised goal of combating climate change (Art. 191(1) TFEU) (Weidenfeld & Wessels, 2016). Particularly important initiatives are the EU climate and energy package as well as the commitment to the 20-20-20 targets in 2007 (Orlando, 2013). The broader Europe 2020 Strategy, adopted in 2010, aimed for smart, sustainable and inclusive growth, by targeting employment, research and development, climate and energy, education, as well as poverty and social exclusion (European Commission, 2010). This strategy thus enlarged cross-sectoral policy action by mainstreaming the strategy objectives into the various policy areas and simultaneously involved a wider range of actors, from industries and public institutions to civil society organizations and citizens (Domorenok, 2019).

Yet, looking at the sectoral policy level, Selin and VanDeveer (2015) have shown that the implementation and outcomes of environmental policy and governance vary significantly. In some areas such as waste, water, air, chemicals, climate change and renewable energy, EU policy initiatives have produced substantial positive environmental results. Yet, some policy areas, like the Common Agricultural Policy (CAP), the Common Fisheries Policy and biodiversity are considered environmental failures. In the latter case for instance, its failure can be traced back to the Biodiversity Strategy's inability to meet its target, mainly due to the lack of implementation and monitoring as well as insufficient cross-sectoral policy integration and coordination with connected areas such as fisheries and agriculture.

The seventh EAP (2013-2020) continues to speak in terms of sustainability with a long-term outlook for 2050 and a new set of goals for the period up to 2020. It claims that insufficient enforcement and implementation of EU environmental law, as well as a lack of policy coherence across issue areas, continue to be significant obstacles to the EU's and member states' ability to achieve essential goals (Selin & VanDeveer, 2015). The current and eighth EAP, which entered into force in May 2022, reinforces the EU's commitment to its long-term vision of "living well within planetary boundaries" by 2050, setting priority objectives for 2030 and outlining the necessary conditions for their achievement, emphasizing the importance of the active involvement of stakeholders at all governance levels for effective implementation of EU climate and environment laws, and serving as the foundation for the EU's pursuit of the UN's 2030 Agenda and SDGs (European Commission, 2023b). Indeed, since its launch in 2015, the EU has committed itself to supporting the 2030 Agenda. However, clear implementation guidelines with defined actions have been missing and its achievement has rather been based on voluntary commitment and loose, intergovernmental coordination (Domorenok, 2019).

Considering the thus far elaborated developments, Domorenok (2019) has summarised the governing principles of sustainable development in cross-sectoral integration, cross-jurisdictional coordination and inclusiveness in decision-making (Table 1.1). Thus, an integrated policy approach involves blending sectoral measures into a unified framework with effective governance to coordinate different units and involve all stakeholders in decision-making across different areas. This approach has been expressed most with the implementation of the EPI Principle, being a driver for change across various sectors. Nonetheless, as already touched upon previously, EPI has been losing in strength both normatively and practically speaking, particularly with the development of the SDS and the attempt to balance social, economic and environmental factors in EU

policymaking, which, in turn, has also been lacking clear guidance as well as systematic monitoring and evaluation mechanisms for policies and programmes (Domorenok, 2019).

Table 1.1 Governing principles of sustainable development.

Governing principle	Components to integrate		
Cross-sectoral integration	Sectors: economic, social, environmental, transport, energy, etc.		
Cross-jurisdictional coordination	Sectors and scales: EU, national, regional, local		
Inclusiveness/partnership	Actors: public authorities, civil society, economic and social interests, enterprises, etc.		

Source: Domorenok, 2019

In sum, environmental policy has undoubtedly been one of the EU's fastest-growing policy areas and has gained substantially in magnitude with a set of efforts to mainstream the environment and sustainability into all policy areas. Nonetheless, difficulties in the achievement of set goals and the lack of effective measures can be attributed to loose coordination mechanisms, insufficient cross-sectoral policy integration, lack of policy implementation on member state level and deficient monitoring mechanisms in certain areas.

1.2. Network governance in the EU: a theoretical framework

Since the turn of this millennium, the European Union has been grappling with a spectrum of governance issues that have prompted a re-evaluation of traditional approaches. This has given rise to efforts aimed at addressing the complex challenges of the rapidly evolving political and economic landscape over the last decades. As already touched upon earlier, the 2001 White Paper on Governance manifests this attempt to tackle the governance challenge and seeks to modernise governance practices within the EU and beyond. Schout and Jordan (2005) have identified four reasons why governance in the EU has turned into such a pressing issue. The first reason is of a practical nature, i.e., the significant increase in the workload due to the policy widening and deepening in the EU. Second, the EU suffered already more than 20 years ago of a legitimacy crisis when only half of the population considered the EU a 'good thing'. Third, policy fragmentation, characterised by discrepancies between policies and policy objectives and their outcomes, has affected actions in clarity and consistency. Last, the trend of governance, being

discussed by both national governments and the EU, raises concerns about uncritically adopting national models at the EU level, particularly due to the challenges arising from the EU's sectorised structure, limited central control, and weak political leadership (Schout & Jordan, 2005).

In a nutshell, the White Paper focused on transparency, citizen participation, subsidiarity, proportionality, policy coherence, effectiveness and better regulation – referring to the principles of 'good governance' (Schout & Jordan, 2005). The paper proposed simplifying laws, enhancing accountability, and promoting global coherence. It emphasised citizens' rights and multi-level governance, aiming to create a more effective and inclusive governance framework for an expanding EU (European Commission, 2001). From part of academia, the paper has received a hail of criticism, being labelled as an "inconsistent think-piece" instead of a proper White Paper (Scharpf, 2001; Wincott, 2001). Nonetheless, it sparked research on the new governance approaches, among others the network approach.

However, before focusing on network governance, we must first understand what governance actually means. In fact, the literature provides various definitions for the term. In the World Bank's (2007) definition, governance involves the selection of authority figures, effective resource management, and respect for governing institutions. Hence, this definition focuses on government institutions and procedures. This interpretation is linked to Klijn's (2008) classification of corporate governance or good governance with a focus on the operation of government rather than its organisation. In this sense, it is more about assessing and measuring the "quality of the governing institutions and practices in developing countries in terms of their stability, interaction, transparency, responsiveness, procedural fairness, effectiveness and adherence to the rule of law" (Torfing & Sørensen, 2014, p. 333). Hence, as Klijn (2008) puts it, this definition refers rather to a "good public organization", which cannot be equated with governance. According to the perspectives of new public management (NPM) or market governance (Osborne & Gaebler, 1992; Kettl, 2000; Fenger & Bekkers, 2007, as cited by Klijn, 2008), governments should guide rather than directly manage. They should set objectives and leave implementation to external organisations or public agencies, which are monitored through performance indicators and market-style mechanisms. This definition aligns with

the idea of NPM of distant government guidance using indicators and market tools, making governance almost synonymous with "political functioning" (Klijn, 2008).

In the context of EU governance, multilevel governance is a relevant term as the EU, against single-level systems, only has a few own competencies (monetary policy, competition policy and trade), while most are shared between the EU and its member states (e.g., environmental policy, border control etc.) and left to the exclusive competence of the member states (e.g., fiscal policy) (Schout et al., 2019). Literature that looks at governance from a multilevel perspective usually analyses cross-boundary issues such as pollution, or the reintegration of economically deprived areas (e.g., Agranoff & McGuire, 2003). Hence, it is about understanding the actions taking place in a multi-actor setting (Klijn, 2008), which also sought to do, despite being rather broad with few concrete actions, the European Commission in its White Paper by making governance more integrative.

Bevir and Rhodes (2003) consider governance a diverse concept tied to neoliberalism, making it hard to define. This leads, as Torfing and Sørensen (2014) note, to a situation where governance becomes all-encompassing and loses clear meaning. The latter authors define "governance generically as the process of steering society and the economy through collective action and in accordance with common goals" (Torfing & Sørensen, 2014, p. 334; Torfing et al., 2012). Steering mechanisms are indeed a popular factor in the definitions of governance, whereby one encounters often the distinction among markets, hierarchies, and networks (e.g., Powell, 1990). As Schout et al. (2019) have put it in simple terms, refer markets to competition, hierarchies to political leadership, budgets, and legislation, and networks to tools which facilitate cooperation (see also Jordan & Schout, 2006). In this regard, scholars have particularly emphasised the limitations markets and hierarchies pose to complex and diversified problems (Héritier et al., 1996), which thus require new modes of governance. Some scholars have perceived the formation of networks (Klijn, 2008; Kooiman, 1993; Scharpf, 1994) or partnerships between public and private actors (Hodge & Greve, 2005) as the solution to the governance problem. The latter is generally seen as an attempt to innovate and enhance the efficacy of public solutions by matching the resources of public and private stakeholders (Torfing et al., 2012). Network forms of governance blend hierarchy and market dynamics, which, however, neglect other forms of coordination, which are not

provided by horizontal networks (Torfing & Sørensen, 2014). Yet, valuable in this perspective is that it recognises the limitations of central steering and highlights the importance of private actors and civil society for governments (Schout & Jordan, 2005) so that governance becomes a process of joint policy-making and implementation rather than an end product (Kooiman, 1993).

Importantly, literature studying networks and network governance often doesn't make a clear distinction, or even uses the terms interchangeably, between policy networks and network governance/governance networks. As Lewis (2011) notes, their distinction lies in their focus and conceptual framing within the context of governance. Börzel (1998) provides a useful differentiation between the two concepts, describing policy networks as a form of organisation which involves stakeholders to address specific issues, particularly in mobilising resources across public and private actors. Network governance, in turn, refers to a horizontal form of governing with an emphasis on the evolving relationship between state and society, recognising its increasing complexity and fragmentation, where problems transcend traditional boundaries. Hence, network governance relies on interactions among various actors to create relatively stable patterns of policymaking. It acknowledges that policy outcomes are not solely controlled by governments and require negotiation, trust, and interdependence among diverse actors. This distinction highlights that policymaking is a result of interactive governing processes rather than top-down control (Lewis, 2011). Indeed, the non-hierarchical modes of coordination of networks are a key characteristic of this mode of governance, given the "mutual resource dependencies and/or informal norms of equality among the actors involved" (Börzel & Heard-Lauréote, 2009, p. 137).

In order to provide a more concrete and coherent definition for this work, I will lean on the definition developed by Sørensen and Torfing, who term governance networks as

"(1) a relatively stable horizontal articulation of interdependent, but operationally autonomous actors from the public and/or private sector; (2) who interact with one another through ongoing negotiations; (3) which take place within a relative institutionalised framework with regulative, normative, cognitive and imaginary elements; (4) facilitate self-regulation in the shadow of hierarchy (a kind of 'bounded autonomy'); and (5) contribute to the production of public purpose in the broad sense of public values, visions, plans, standards, regulations and concrete decisions." (Torfing & Sørensen, 2014, p. 334)

This definition provides a relatively precise characterisation of networks, while at the same time leaving space for specifying networks into more exact terms, depending on their specific characteristics. This may refer to the categorisation of networks into different types, which I will come back to later in this section. Yet, the inclusion of a set of types of actors, the format and framework of interaction, a relatively non-hierarchical structure, as well as the collaborative approach to the perception of common goals in the definition of governance networks is fundamental and contributes to an apt framework for this work.

Another important aspect which should be taken into account when analysing governance networks is their mode of coordination, meaning whether a network is self-organising or centrally steered. This seemingly simple but fundamental distinction was brought to attention by Schout and Jordan (2006; 2005) as they noted that scholars tended to treat networks as generally self-organising or self-steering, which, in the context of European networks, refers to "a process through which actors involved identify their mutual interdependence, formulate and implement shared strategies (which involves gathering and analysing information, setting priorities and solving problems), and build the required organizational structures at network and actor level" (Schout & Jordan, 2005, p. 202). A centrally steered or network management approach, on the other hand, requires more coordination from the government. This is, however, to not overstep the line of the hierarchical mode of governance, in the network context a complement to the self-organising method. In other words, governing is a process which is not entirely controlled by a government (Lewis, 2011) and can thus not be seen as an alternative to self-organisation in networks (Schout & Jordan, 2005).

This is interesting to consider in the context of EU governance as no central government or authority is having a privileged position in public policymaking. In the literature, it is also argued that the EU has turned into a "networked polity" (Torfing & Sørensen, 2014), where interaction in negotiations of a set of actors is a key feature in decision-making processes. This is indeed an important element in EU governance, yet, as Börzel and Heard-Lauréote (2009) have highlighted, describing it as governance by networks would undermine the role of the supranational institutions of the EU, which cast their shadow widely in the policymaking process. Moreover, non-public actors have, according to the authors, not as much of an influence as required by a system of

governance by networks. They describe EU governance rather as governance *in* networks, which involves informal collaborations among public and private actors across different government levels to address shared issues and shape policies, which particularly concerns the strategic use of networks by the European Commission to strengthen its position in the policymaking process. Networks can thus enhance resource sharing but may also raise concerns about power dynamics and exclusivity, impacting transparency and accountability in EU policymaking (Börzel & Heard-Lauréote, 2009).

The use of networks as an arm's-length approach to governance is also reflected in the previously discussed White Paper on Governance from the Commission (Schout & Jordan, 2005). Although the Paper tries to tackle the governance challenge by proposing a more cooperative framework, it pays relatively little attention to the challenges that come with the creation of cooperative transnational relations. It called for increased voluntary cooperation, yet the initiatives from the Commission were limited to the creation of websites for better communication with interest groups, the delivery of joint training for national civil servants, and the establishment of programmes to twin new and old member states (European Commission, 2001). Indeed, the Commission assumed that networks have a great potential to contribute to EU policies, but also that the measures proposed would be sufficient to motivate actors to connect since networks are essentially self-steered. However, it is noteworthy that in practice, not all networks function in a self-organised manner, requiring central coordination to a certain extent, as already discussed above (see Schout & Jordan, 2005).

This brings us back to the essence of the new modes of governance, as they seek, in the EU context, to achieve policy goals by building on extant capacities, namely hierarchy (i.e., legislation and regulation) and market mechanisms, through network forms of governance (Jordan & Schout, 2006). This transition from traditional hierarchical forms of societal control to more decentralised approaches is often described as the shift from government to governance (Flinders, 2004). This transition has largely been seen as an approach with great potential especially "because in modern policy systems (particularly polycentric ones like the EU), central bodies have a diminishing capacity to exert hierarchical authority, and should instead be viewed as a participant – albeit a special one – in interorganizational networks" (Jordan & Schout, 2006, p. 7).

So far in this section, I have discussed the meaning of governance and network governance, its understanding in an EU multilevel context as well as the ambiguities of network governance in the literature. It remains to be clarified what functions these networks perform and how we can distinguish networks from each other in terms of typology. Starting with the former, some networks serve as platforms for sharing knowledge, information, and ideas to support informed and knowledge-driven decision-making, while others focus on the creation of synergies by coordinating participant actions to avoid redundant efforts. More ambitious governance networks may even endeavour to develop a shared comprehension of emerging policy challenges and collaborate on formulating and implementing collective solutions (Torfing & Sørensen, 2014). This is a broad definition of functions networks can perform and they are by no means exclusive, meaning that one network may perform more than one function.

Looking at a network's functions also allows for classifying its coordination capacities. In other words, Schout and Jordan (2005) argue that the more tasks, actors and issues to address (i.e., a broader set of functions) in a network, the higher the need for a high-level, more coordinated type of network. On an EU level, they distinguish between enduring and weak networks. The latter is a rather informal type of organisation with few meetings and no real leadership. An enduring network, on the other hand, is one with a leadership or coordination role, whereby this may vary in strength: a) weak – primarily a secretarial position with minimal leadership responsibilities, mainly involving scheduling meetings and assisting the chair; b) moderate – involves supporting policy planning, distributing policies, and identify potential future policy options; c) strong – involves taking on strategic organisational duties, including overseeing the development of the network's design, motivating new actors to join and auditing its activities. Another aspect to consider is national administrations' capacities, which are normally a determining factor in EU policy delivery. Hence, their role, resources, as well as coordination capacities impact significantly the network's overall effectiveness (Schout & Jordan, 2005).

The strength of network coordination is for Provan and Kenis (2007) a similarly central aspect. They distinguish between three main types of governance networks. Firstly, participant-governed networks are governed by the network members themselves, without the presence of a separate governing body. Governance can take two main

approaches: formal, involving regular meetings of designated representatives, or informal, relying on the uncoordinated efforts of those with an interest in the network's success. Moreover, participant-governed networks are rather decentralised, where most or all members have equal involvement in governance. Hence, decisions at the network level are taken more or less equally. Secondly, in lead organisation-governed networks, a single participating member assumes the role of a lead organisation, coordinating all significant network-level activities and pivotal decisions. Consequently, network governance becomes strongly centralised and intermediated, resulting in uneven power distribution. The lead organisation takes on administrative responsibilities for the network and/or assists member organisations in their pursuit of network objectives, which often align closely with the lead organisation's own goals. This type of network governance comes into play when, due to the inefficiencies shared governance may bring with it, a more centralised approach is preferred. Lastly, network governance by a network administrative organisation (NAO) is characterised by the existence of a dedicated administrative entity to oversee the network and its operations. This model is thus a centralised type of network governance. The NAO, acting as a network broker, plays a crucial role in coordinating and sustaining the network. Unlike the lead organization model, the central body here is not a member of the network offering its services, but the network is instead externally governed by one administrative organisation established exclusively for governance. This central organisation is oftentimes a government entity or a nonprofit (Provan & Kenis, 2007). The information concerning network governance models with coordination capacities, characteristics and functions is summarised in Table 1.2.

A last aspect that should be illuminated in this section concerns network governance and effectiveness. In fact, literature is rather at odds on how effectiveness in governance networks can be assessed, yet some indicators have been developed. For instance, Börzel and Heard-Lauréote (2009) outline five mechanisms which shall determine a network's effectiveness, which refers to the capacity to improve the quality of policymaking. Firstly, they offer flexibility to address complex policy challenges that formal institutional arrangements often struggle with. Secondly, they provide access to decision-makers, enabling stakeholders to engage in governance decisions. Thirdly, networks contribute to problem identification and solution development in the early stages of the policy process.

Fourthly, networks aggregate resources, including information, expertise, finances, and support, which are essential for addressing new policy complexities. Lastly, they promote socialisation by fostering shared meanings and values, facilitating communication, and deepening integration in a diverse political and cultural context (Börzel & Heard-Lauréote, 2009).

Table 1.2 Network governance models with coordination capacities, characteristics, and functions.

	Participant- Governed Networks	Lead Organization- Governed Networks	Network Governance by NAO
Description	Governed by network members themselves	A single member assumes a central coordinating role	A dedicated, external administrative entity oversees network functions ('broker')
Establishment model	Bottom-up	Top-down	Bottom-up or top-down
Coordination Approach	Decentralised	Centralised	Centralised
Power Distribution	Power is distributed relatively equally among network members.	Power is concentrated in the lead organisation, resulting in uneven distribution.	Governance and coordination are handled by the NAO, but members have equal power.
Type of organisation	Weak or enduring	Enduring	Enduring
Leadership	Absent to moderate	Weak to strong	Weak to strong
Functions	Weak network: few meetings; Enduring network: scheduling meetings; policy planning, distributing policies, and identify potential future policy options	Enduring network: scheduling meetings and assisting the chair; supporting policy planning, distributing policies, identifying potential future policy options; taking on organisational duties (i.e., overseeing the network, motivating new actors to join and auditing its activities)	Enduring network: scheduling meetings and assisting the chair; supporting policy planning, distributing policies, identifying potential future policy options; taking on organisational duties (i.e., overseeing the network, motivating new actors to join and auditing its activities)

Source: Information adapted from Schout and Jordan (2005, 2006), and Provan and Kenis (2007).

Provan and Kenis (2007) identify four key predictors for effective network governance and relate them to the models discussed above. Trust, size (number of participants in the network), goal consensus, and the need for network-level competencies (added value of the network) are, according to the authors, key factors which, depending on the intensity of each one, explain the choice of one particular model of network governance but also illustrate how well a network is performing. In this sense, for example, the higher the number of participants or the need for network-level competencies, the more effective are brokered forms of governance, such as the lead-organisation governed network or the NAO-governed network.

Hence, we can see that a network's effectiveness is by no means a clearly determined matter, it can rather be assessed considering a set of factors which also depend on the specific type of network, its goals and functions. To close the circle in this theoretical network and sustainability governance chapter, part 1.3. following hereafter focuses on the network approach to specifically govern environmental and sustainability issues in a European Union context and what literature has been looking at in this regard.

1.3. Networks for green governance in the EU: the state of the art

Network governance has gained popularity for addressing environmental and sustainability matters in the European Union due to its perceived flexibility, adaptability, and inclusivity in navigating the complex and cross-sectoral nature of these issues. Environmental challenges transcend traditional boundaries, involving stakeholders beyond government bodies, including non-governmental organisations (NGOs), businesses, academia, and local communities. Governance networks shall thus facilitate collaboration and information sharing among diverse actors, which should lead to a more holistic and coordinated approach to problem-solving. In the EU context, the shared commitment to sustainability requires the integration of policies across sectors such as energy, agriculture, transportation, and climate, as discussed in Chapter 1.1., whereby networks have been increasingly used to align these disparate interests and ensure a unified response to environmental concerns. Yet, since its increased promotion in the EU more than 20 years ago, to come back to the 2001 White Paper, what has been achieved with networks? What has been found in network governance literature? What are the strengths and weaknesses of studied networks in relation to environmental challenges?

These are some questions I am going to address in the present section, in order to position myself in the literature of environmental network governance with this thesis.

Scholarship has taken various angles to look at the practical functioning of governance networks. A popular approach is to look at specific policy-related issues and how networks contribute to the policy-making process, their effective governance and implementation. To start with, the EPI Principle with its high political profile and bringing a complex cross-sector, multi-level challenge, has also been analysed from a network governance perspective. As already discussed in Chapter 1.1., is EPI implementation criticised for not receiving the necessary coordinative and administrative capacities needed, which eventually leads to a lack of effective functioning from a cross-sectoral perspective. This is, as Schout and Jordan (2005) found, exactly where both EPI as well as the EU's network approach fall short: the actual cross-sectoral integration of governance networks to actually implement EPI properly across all areas. In a later publication, they outline three EU-level networks which were relevant to the EPI Principle: i) the Cardiff process network consisted of sectoral formations of the Council and was serviced by the Council Secretariat, yet scarce resources and the lack of central coordination led to the development of rather incoherent EPI strategies; ii) the network of national environmental coordinators established as main contact point between member state environment departments and the Environment Council and thus focused rather on vertical rather than horizontal integration; iii) the Environmental Policy Review Group (EPRG) was created to improve the information flow between the Commission DGs and national environment departments, yet considers EPI rather in a broad, strategic sense instead of specific implementation (Jordan & Schout, 2006).

Hence, the authors concluded that "an effective [and formal] EPI network simply does not exist. In fact, the situation is even worse than that: because the White Paper suggests that networks are self-managing, the problem is effectively 'assumed away'" (Schout & Jordan, 2005, p. 218). In other words, EPI's flawed implementation is to an extent attributed to the EU's interpretation, as in the 2001 White Paper, of networks essentially being self-steered. Networks would need, particularly in cross-sectoral challenges such as EPI, more central steering than has been assumed by the Commission.

The issue of cross-sectoral integration is a central aspect to be considered when it comes to environmental policy since it always affects a set of actors and areas. This is

why networks seem to be the ideal tool to establish a horizontal governance architecture for this complex policy challenge. Adelle and colleagues (2015) analysed sectoral and inter- (or cross-) sectoral networks in relation to EU mercury policy. As the EU has adopted policies on mercury since the 1970s due to its heavy environmental impact, was the present network in its first years a sectoral (chemical-industrial) one and primarily prioritised the EU's economic concerns in decision-making. However, as an inter-sector network gradually emerged (with the inclusion of DG environment, scientists, national environmental bodies etc.), it played a vital role in balancing the EU's economic and environmental interests. This cross-sectoral network served as a platform for diverse stakeholders, each with their distinct objectives related to the policy area, to come together through frequent interactions and ultimately find solutions to shared challenges. The authors further highlight the importance of steering mechanisms, meaning that intersectoral networks require some sort of central coordination to function effectively – or even to form at all (Adelle et al., 2015). These findings align with Boumans and Ferry's (2019) analysis of cohesion policy in the case of programme implementation in Scotland. Put shortly, results showed that the presence of a lead partner in the consortium set-up of a project positively correlates with efficient implementation. The lead thus takes over the management of interactions among partners, which allows them to adapt and steer the network and its members as needed (Boumans & Ferry, 2019).

What is most interesting from the findings above, is that in various environmental policies that are cross-sectoral in nature (EPI, mercury policy and cohesion policy), there is a need for a certain degree of central coordination and steering to ensure effective implementation. This aligns with the literature on network governance from section 1.2. and will be discussed further in the present work regarding the case study analysis.

Further, regarding environmental policy implementation and networks, a popular approach in academia has been to look at transgovernmental regulatory networks (TRNs) as these are essentially the types of networks that are specifically designed to implement EU policy. This goes back to Keohane's (2001) governance dilemma, which is about the EU's inability to effective policy implementation due to its lack of administrative capacity. Given that greater centralisation is both politically implausible and likely undesirable, the EU's approach to enhanced uniformity involves regulating through networks. This entails connecting national authorities within issue-specific domains and

involving them in the decision-making process (Eberlein & Newman, 2008). TRNs, are in simple terms "transnational organizations that federate the regulatory authorities of EU member states, as well as some non-member states such as Iceland, Norway and Switzerland" (Maggetti & Gilardi, 2014, p. 1295). Migliorati (2017) further finds two types of TRNs in the literature: i) European Regulatory Networks (ERNs) that were created through secondary legislation by the European Commission, examples are the European Competition Network or the Body of European Regulators for Electronic Communications, and ii) informal regulatory networks which were established as spontaneous initiatives by national regulatory authorities and do not enjoy legal status, such as The Independent Regulators Group (Migliorati, 2017). In the literature, however, this distinction is often not applied and both types are termed as ERNs.

ERNs have attracted much attention in network governance scholarship, particularly because of their high level of sophistication as a networked form of governance and due to their potential to establish a new mode of governance bridging the gap between nation and Union level (Maggetti, 2014). Overall, there are five main ERNs, charged with the regulation of finance, energy, telecommunications, competition, and broadcasting. In the case of energy regulation, which poses a central area for environmental regulation, Maggetti and Gilardi (2014; see also Maggetti, 2014) found that the domestic adoption of soft rules (i.e., the production and dissemination of non-binding standards, guidelines and recommendations) in network governance is influenced more by network-level characteristics rather than by the resources of domestic agencies. The presence of review panels positively affects adoption, while policy interdependence and the availability of data play key roles in shaping the timing and extent of adoption. Put simply, the network's structure and its interactions are essential determinants of soft rule adoption, which emphasises the importance of the architecture of these networks in relation to policy implementation.

Coen and Thatcher (2008), on the other hand, took a more holistic approach to studying ERNs and found that the institutional design of ERNs, characterised by sophisticated tasks but limited resources and powers, results in a dependency of national actors and the Commission. This limited mandate together with a rivalry to other regulatory networks, burdens their coordination capacity. In other words, although ERNs develop informal resources and linkages to exert more influence, the formal institutional

framework indicates that they face challenges in achieving their ambitious goals, attributed to ongoing issues of delegation and coordination in the European regulatory landscape (Coen & Thatcher, 2008).

Having looked at the characteristics of ERNs and some findings in the literature, it becomes clear that the networks studied are not created for the complex challenge of environmental governance and the implementation of sustainability policies as ERNs are created as sectoral networks at the Commission's arms-length. Coming back to Migliorati's distinction of transgovernmental regulatory networks, the second type refers to a more informal, bottom-up regulatory network initiated by national authorities. Here, one network is of specific relevance to environmental governance and has rather been neglected by the ERN literature, namely the European Network for the Implementation and Enforcement of Environmental Law (IMPEL). In this sense, Migliorati (2017) conducted an in-depth study on the network arguing "that IMPEL is becoming a firstchoice solution for the implementation of EU environmental policy, as it is able – under the lead of the European Commission – to pool resources devolved to common EU goals, without incurring in the economic and political costs an EU agency would bring about" (Migliorati, 2017, p. 5). Indeed, results show that although IMPEL is not an official EU entity, it actively seeks to promote greater environmental policy harmonisation, operating under the coordination and guidance of the Commission. Logically, the downside of informal networks is that their effectiveness is by default limited due to the lack of enforcement powers on national implementation of EU law (Migliorati, 2017). Yet, as Eberlein and Newman have shown, the mobilisation of domestic authority through transgovernmental networks, which are founded on issue-specific support alliances involving the Commission, regulatory bodies, and sector stakeholders, play a pivotal role in facilitating the coordination of supranational policies (Eberlein & Newman, 2008). Thus, well-designed networks are largely considered an effective tool for better policy coordination in a multi-level governance context.

It is therefore that Levi-Faur (2011) has found that in the European regulatory space, two forms of institutionalisation have taken the upper hand, namely networks and agencies, while their three forms of interaction or rather their administrative rationalisation can manifest themselves in the form of "agencification" where agencies replace networks, in "agencified networks" with agencies creating, employing, and

controlling them, and in "networked agencies", a new type of organisation that empowers agencies. Interestingly, at the time of the article's publication, the author only found the European Environment Agency to be of the latter type of organisation, which can be attributed to the agency's partnerships with other European-level networks, including IMPEL as well as EIONET, which will be of relevance to the present work.

Shifting away from the ERN literature but staying in the sphere of policy implementation and environmental network governance, scholars have demonstrated the importance of governance networks in relation to EU environmental policy compliance. As the EU enlargement in the 2000s has included a set of countries with lower administrative capacities in Central and Eastern Europe, incompliance was a concern in the more diverse Union. As Andonova and Tuta (2014) have found in their analysis of compliance with the Natura 2000 legislation in Romania and Bulgaria, both with a considerable amount of infringement proceedings concerning EU environmental law, networks have significantly impacted the management and enforcement of legislation. In fact, "[i]n both Bulgaria and Romania, networks have contributed to a visible improvement in compliance levels that was unexpected when considered from a theoretical perspective emphasizing regulatory misfit, compliance cultures or institutional capacity. Our findings reveal that participation by non-state and public actors in transnational networks can strengthen learning, socialization and enforcement pathways to European regulatory integration" (Andonova & Tuta, 2014, p. 788). Particularly two aspects have been found to be important for such a result: networks dealing with supranational obligations are more likely to have expertise and a vested interest in ensuring compliance; and when domestic and international institutions facilitate the participation of non-state and sub-state actors in rule-making and implementation, it is more likely for networks to exert influence (Andonova & Tuta, 2014).

Having been under the radar of several scholars, Natura 2000 is an interesting case to study in relation to network governance in the EU. In a nutshell, Natura 2000 is a network of protected natural areas in the EU and consists of two main components. On the one hand, Special Protected Areas (SPAs) for endangered, vulnerable and rare birds and their most important habitats are to be established by Member States according to the 1979 Wild Birds Directive. On the other hand, Special Areas of Conservation (SACs) oblige, under the 1992 Habitats Directive, the protection of endangered plant and animal species

in their habitat. Together are the SPAs and SACs integrated into the pan-European Natura 2000 network.

While the study above puts its focus on compliance, another analysis has looked rather on cooperation, structure and influence of two Natura 2000 networks. Put briefly, the results of a social network analysis show that regardless of the leading institution type, the networks exhibit low private stakeholder involvement in conservation decisions and implementation, revealing a clear top-down approach of the management in the studied networks (Manolache et al., 2018). Another paper by Zisenis (2017) showcases the limited capacity of Natura 2000 to safeguard Europe's biodiversity heritage as most species occur predominantly outside Natura 2000 protected areas. Thus, the author calls for a reform of the network to establish an integrated ecosystem approach that accommodates both natural and human-induced fluctuations in species habitats and perceives 100% landscape management across the wider countryside as the appropriate approach due to the limited coverage of Natura 2000 sites (Zisenis, 2017).

Putting these findings into a network governance perspective, the Natura 2000 network can have a significant impact on the management and enforcement of legislation. The involvement of both and public non-state actors in networks can strengthen European regulatory integration, improving compliance levels. However, challenges in Natura 2000 networks, such as limited private stakeholder involvement and the need for reforms to address biodiversity conservation outside protected areas, emphasise the importance of network structure and cooperation in achieving effective governance outcomes.

So far in this section, I have outlined research findings related to environmental network governance in relation to EU policy implementation. However, it has also been argued that governance networks may be effective tools to improve the policy-making process as a whole, starting from agenda setting and policy formulation. Moreover, the networks discussed so far were mostly established by EU institutions themselves or by national authorities in order to implement EU regulations more effectively. Yet, literature has also looked at voluntary, bottom-up types of networks aiming to enhance cooperation and coordination of sustainable development and environmental protection mainly through knowledge sharing on a European level.

Such a network is the Covenant of Mayors (CoM), initiated in 2008 by the European Commission to promote sustainable energy practices at the local level. The CoM brings

together local and regional authorities in Europe under a voluntary commitment to implement climate and energy actions. In a nutshell, the 3 pillars of signatories' commitments include the reduction of GHG emissions by 55% by 2030, strengthening resilience, and alleviating energy poverty. Signatories develop Sustainable Energy Action Plans (SEAPs) in line with EU policies as well as regulatory reports, whereby the Covenant provides support and promotes networking among its participants as well as to its global counterpart, the Global Covenant of Mayors, which connects cities worldwide in the fight against climate change (European Commission, 2023a).

A look at the CoM's map of signatories on its website showcases the unequal distribution of participants across countries: while Italy, but also Spain and Belgium show a striking number of signatories, other states like France or the UK have a rather low number of participatory local authorities. Nonetheless, according to an in-depth analysis by Domorenok (2019), commitment in two UK cities to their CoM strategy has shown to be high in using the network to improve their local sustainable energy policies and enhance international visibility and collaborative networks. In two Italian cities, on the other hand, CoM has been used strategically to consolidate and revise their local sustainable energy plans, addressing gaps left by national regulations. Moreover, the study revealed that differences in municipal strategies within the CoM are generally influenced by factors such as resources and capacities, political leadership, and the existence of prior local strategies. Additionally, regional support measures and cooperative networks have played a pivotal role in facilitating CoM implementation, enabling municipalities to secure EU grants and financing. Interactions with the CoM office have also contributed to increased knowledge and awareness among all municipalities regarding the significance of city networks in Europe (Domorenok, 2019).

Along with this, another paper by De Botselier (2019), found that, in a study on the CoM participation of the city of Bruges in Belgium, CoM successfully raises climate policy as a prominent issue in local politics. The network has encouraged cities to make rhetorical commitments to combat climate change and translate those into concrete actions through SEAPs. However, the paper notes that the Covenant faces challenges in advancing climate policy beyond these initial stages, largely due to political conflicts and electoral considerations. To address this, the author recommends a higher, direct engagement of the Covenant with decision-makers, including think tanks of political

parties, to better integrate climate concerns into projects thereby facilitating the practical implementation of climate policies (De Botselier, 2019). These findings align with the ones above, indicating that successful participation in the CoM is related to strong political and administrative leadership.

Hence, the take-away message from the insights of these two analyses in relation to network governance and voluntary, bottom-up (city) networks is twofold. On the one hand, a key function of the network, namely the exchange of knowledge and good practices, has proven to be a central added value for the signatories and has raised awareness of the importance of such networks, which, in turn, leaves a responsibility to a network like the CoM to establish mechanisms to ensure an effective functioning of the network. On the other hand, leadership, particularly political but also administrative, is central to successful participation and thus implementation of actions emerging from the network, in this case, sustainable energy policies at the local level. This aligns with the observations from Chapter 1.2. about network governance, where particularly Schout and Jordan (see 2006; 2005) argued for the necessity of a certain degree of leadership or steering in network governance. In the CoM this leadership comes, however, not from the network but is rather up to the signatory authorities themselves.

This goes along with the results of an analysis by Nochta and Skelcher (2020), studying low-carbon energy transition networks in Frankfurt, Birmingham and Budapest from a sustainability transitions perspective. They highlight the central role of a transition manager from a public authority of the city, who performs the necessary steering among network participants in the co-creation of sustainable solutions. Moreover, the authors emphasise the importance of considering the local context, such as culture and historical approaches to transitions, as well as the diversity of network roles, referring to the understanding of existing sustainability networks already present in the city and thus strengthening the existing initiatives, as well as addressing the challenge to engage with the market sector, especially energy-intensive industries, which is essential to achieve carbon emission reduction (Nochta & Skelcher, 2020). Contrarily, Khan, in his paper on the role of network governance in urban low-carbon transitions in Sweden, has emphasised the strength of network governance "to mobilise actors from different backgrounds and sectors to put climate issues on top of the political agenda" (Khan, 2013, p. 138), thereby contributing to enhancing niche developments and innovations at urban

level. However, this is accompanied by problems related to democratic legitimacy, as formulation and implementation of urban climate policies is largely carried out by closed elites, without offering space for alternative voices. This can be particularly problematic in the case of low carbon transitions as they can heavily impact societies, cities and lifestyles, and therefore risk maintaining a techno-optimistic path to simply bringing down emissions, instead of thinking about who is affected and therefore included in the process (Khan, 2013).

Contrary to the frequent existence of energy networks, be it of regulatory nature as outlined previously or ones enhancing a low carbon energy transition in cities, and academic literature addressing them, other areas in the environmental and sustainability sphere are only on the merge of the network governance radar. An apt example is the circular economy, on which scholarship is only in its infancy. A study by Cramer (2022) comparing 16 European countries has shown that a circular economy can be challenging to implement, with countries featuring consensus-oriented societies and pluralistic governments experiencing fewer obstacles, such as the Netherlands, where network governance can empower circular economy initiatives (Cramer, 2020). Effective circular economy implementation further requires structures, goal-oriented approaches, as well as a strong public government supporting circular economy practices (Cramer, 2022). Nevertheless, literature on the matter is rather scarce and requires further insights in order to determine if and under what circumstances the network governance approach is fruitful for a circular economy.

The present section has sought to contribute to the understanding of network governance in relation to environmental and sustainability issues in a European context, by giving an overview of the recent literature studying existing networks on European, national and local levels. Having looked at literature covering diverse types of networks, ranging from transgovernmental regulatory networks and policy implementation networks to city networks and national or local initiatives, it can be concluded that both the nature of governance networks as well as scholarship addressing them vary strongly. Nonetheless, several studies have highlighted the importance of central coordination mechanisms and leadership with strong and variative stakeholder engagement for effective network governance in the environmental sphere. In sum, literature has revealed challenges and opportunities in network governance, yet in light of evolving challenges

and therefore policies in the sustainability field, research should adapt to this development and contribute to a better understanding of network governance for a more holistic picture of environmental governance.

In particular, what has stood out from this review is that the great majority of studies have analysed networks at a country or city level, focusing on specific cases. Only a few have investigated networks at a European level and even less so have considered multiple networks in the environmental spectrum in their analyses. This is particularly problematic if networks have been considered, first and foremost by the Commission itself in its 2001 White Paper, apt modes to govern cross-border, multi-level and stakeholder-involving challenges (Torfing & Lewis, 2011) such as sustainability. To close this knowledge gap, this thesis investigates relevant European-level transnational governance networks in the sustainability and environmental field, which operate at multiple governance levels, include a wide range of stakeholders, and act along EU-level policy objectives. As will be demonstrated in more detail in the following chapter, the European Environment and Sustainable Development Advisory Councils Network and the European Environment Information and Observation Network are pertinent cases to study for this work. It needs to be discovered how these networks work, how they are governed and what their role is in relation to EU sustainability policy objectives. These insights are particularly helpful to understand how governance networks function in practice and how effective they are in governing sustainability and simultaneously contribute to the network governance literature regarding governance architectures and effectiveness in promoting policy objectives.

Chapter II Method and case studies: the EEAC Network and the EIONET

2.1. Case selection

As the foregoing literature review has demonstrated, environmental and sustainability matters have become prominent issues to be addressed by governance networks since they demand a more holistic and integrated approach, unapt to be treated in a vacuum. Considering the identified research gaps – i.e., the lack of multiple case studies of environmental networks and a European level instead of a country or locality-specific approach – the following research questions should guide this investigation:

- RQ1 What are the key characteristics and structures of the two networks being studied, and how do they differ from each other in terms of their composition, governance, and decision-making processes?
- RQ2 What kind of functions do these networks perform?
- RQ3 What factors shape these networks' behaviour?
- RQ4 How do these networks contribute to the achievement of EU environmental policy objectives related to sustainable development?

By addressing these research questions, the main goal of this research is to shed light on the nature of governance networks in the environmental field in Europe, thereby contributing to a deeper understanding of their structures, functions, behaviours, and effectiveness in relation to EU sustainability policy objectives. To this end, I aim to provide an in-depth analysis of two networks individually, answering RQ1 to RQ3, in order to give the most complete insights on the nature of the networks, which I complement with a systematic comparative analysis, particularly seeking to come to generalisable results in terms of overlapping and required governance mechanisms and influencing factors to their behaviour. The latter is of particular relevance since it provides a solid understanding of aspects applicable to governance networks in general. Moreover, in answering RQ4, I aim to deduct aspects central to the effective promotion of EU policy objectives related to sustainability, hence contributing to the comprehension of how networks can actually contribute to the EU policy agenda.

Hence, for this analysis, European-level networks were to be identified, which are relevant to environmental and sustainability governance in the European setting, while at the same time not limiting themselves to a specific environmental topic, such as water or energy, as these kinds exist to a nearly uncountable number. The selection criteria were therefore, as anticipated previously, that the networks must operate at multiple levels of governance, include a wide range of stakeholders and act in line with EU-level policy objectives. The European Environment and Sustainable Development Advisory Councils Network, a network of 18 national and sub-national advisory councils on sustainable development and the environment from 14 European countries, and the European Environment Information and Observation Network, an information and organisation network consisting of the European Environment Agency and national bodies and institutes from 38 European countries, have proven to be suitable networks for a

comparative analysis for the following reasons. First, they are both European-wide networks containing a large number of participants, including public and private actors as well as other stakeholders from a variety of countries, which demonstrates the relevance of the two. Second, both the EEAC Network and the EIONET focus on environmental and sustainability issues, instead of merely specific parts of it, which implicates a cross-sectoral influence of multi-faceted networks. Third, they have EU policies high on their agenda, meaning that they specifically aim to link EU-level environmental policies with their network members. As stated on their websites, the EEAC Network "deploys activities to help its members to be informed about ongoing or forthcoming policy developments at European level that are of relevance to the councils' work" (EEAC Network, 2023), while the EIONET seeks "to give EU policy makers and the public the best available knowledge to reach the targets on environment and sustainability" (EIONET & EEA, 2023). Fourth, the networks show, however, organisational as well as operational differences, which can bring forward meaningful results in the identification of patterns across different contexts.

Despite the relevance of both networks in Europe, academic literature appears to be scarce in the two cases. For the EIONET, one strand of literature has studied the communication technological side of the network (e.g., Heatherington, 2012; Saarenmaa, 1998, 2001), since the EIONET embodies both a telematic and organisational network. Taking a more environmental governance stance, another strand has investigated the European Environment Agency (EEA), the coordinator of the EIONET. Trondal and Jeppesen (2008), for instance, have categorised various EU regulatory and non-regulatory agencies and identified their autonomy toward EU institutions, with the EEA being a network administration that contributes to the Europeanisation of domestic agencies. The EEA also enjoys a relatively high level of autonomy, with its own role, mission and identity, gradually having developed standard operating procedures for providing information, as well as forming stable patterns of inter-institutional cooperation (Martens, 2010). This aligns with Levi-Faur's (2011) finding of the EEA's unique approach to collaborate with networks and adopt network characteristics, and therefore become a "networked agency" benefitting from its interactions with various networks, which also includes EIONET. However, as of my knowledge, none of these studies has taken such a governance analytical approach for the EEA and the EIONET together, leaving the agency's main knowledge provider out of the picture. A starting point represents the EEA evaluations which are conducted every five years, to assess and evaluate the agency's performance. The latest assessment, coming from the European Commission, integrates more strongly the EIONET in the study, assessing the agency and the network based on the Better Regulation Guidelines including the elements of effectiveness, efficiency, relevance, coherence and European added value (European Commission, 2018). Despite giving valuable insights into the network's functioning, governance aspects are not included in this methodologically wide and analytically deep analysis. Nevertheless, the findings from the study were, as far as falling within the scope of this thesis, incorporated in the present work.

Regarding the EEAC Network, few publications exist on the network's structure and governance. Niestroy (2005) and Macrory and Niestroy (2004) looked at the national advisory councils part of the EEAC Network, in relation to their national context, their structure, roles and functions. Moreover, the establishment of the network was outlined, with concrete insights on the outcomes and objectives of the network's activities. Another analysis by Rehbinder and colleagues (1999) looked at the impacts of national environmental advisory councils in the different EU member states since at the time environmental advisory councils were a rather recent phenomenon. These examples show that in the past some fundament was poured what concerns literature on the EEAC Network, but since then, little to no progress has been made. A point of departure for this thesis poses a more recent contribution by David Baldock (2017), who has provided a review of developments, actors, working methods, and contributions of the EEAC Network – always in relation to EU and global policy themes.

2.2. Research design

In light of the scarcity of literature available on the two networks, a mixed-method qualitative analysis was carried out, in order to build a solid base on what concerns their governance dynamics and policy contributions. Precisely, semi-structured interviews with key figures (N=7) of the two networks were conducted, as well as a complementary document analysis was carried out to answer the research questions presented above. Regarding the interviews, interviewees were recruited via email request after an online search of some key figures within each network as well as via snowball system through

interviewees. Informed consent was obtained by briefly describing the research project in the email. This was orally explained again before starting the interview, along with assuring the interviewes' anonymity and obtaining their permission to record the interview. The records were transcribed in clean verbatim. Interviews lasted between 35 to 85 minutes, on average approximately one hour, and questions were adapted depending on the network as well as on the position the interview participants held. Hence, for the EIONET, interview guides were adapted to interviewees from the EEA, the national networks and expert centres, while for the EEAC Network, adaptations were made whether the interview partner holds a central coordination role or comes from a national advisory council.

Thus, to answer RQ1, questions concerning the networks' governance dynamics, structures and decision-making processes were asked, such as: "Can you outline the composition and structure of the national network in your country?" "According to what criteria are national experts or organisations selected?" "In what ways do you interact with other parts of the network?" "How is the network coordinated and who takes over the main coordinating position?" "How are decisions taken that concern the agenda, strategies or day-to-day activities?" Regarding RQ2, the functions of the networks, questions related to the functions and activities of each part of the networks were posed, which then enabled to conclude on the overall functions of the network as a whole. RQ3 sought to identify influencing factors to the networks' behaviour (i.e., how they operate and act, make decisions and function) so that the following questions were asked among others: "What factors influence the network's work programme and activities?" "Are there, in your opinion, any factors that challenge the operation of the network?" "Do you notice any difference in the operation among countries? What are the reasons for this?" "How are thematic areas of interest decided each year?" "Can you think of any influences that affect the engagement of countries/councils/partners in the network?" Since this question is more of an analytical nature in contrast to the other RQs, particular focus was paid in the interviews to it. Concerning RQ4, the network's contribution to the achievement of EU green policy objectives, the following questions assisted in finding its answers: "In what way does the EU policy agenda guide the network's activities and actions?" "How are EU-level objectives incorporated into the network's agenda?" "Are there any mechanisms for monitoring and evaluating the impact of the network's activities

and actions on EU environmental and sustainable development policies?" "What policies do you address specifically in your Working Group?"

Complementary to the interview data, a document analysis was carried out, especially concerning the networks' composition and structure. Hence, reports of the networks, annual and multiannual work programmes, strategies, and statutes were consulted in order to receive the most comprehensive picture of the two networks. For EIONET, all necessary documents were available online, whereas for the EEAC Network, some documents could be found on the website while some were sent by the network secretariat after request. The gathering of the documents was terminated by mid-September 2023, interviews were conducted from late July 2023 to early September 2023.

To analyse the gathered data in the most coherently, both the interviews as well as the documents were coded thematically, meaning that each research question was attributed a colour so that the parts of the answered interview questions and the ones of the documents applying to the respective research question were coloured the same way. Additionally, sub-categories were identified, which were mostly keywords specifying certain themes, such as 'decisions/decision-making' or 'structure' for *RQ1*, or 'policy objectives' for *RQ4*. Specifically for *RQ4*, the document analysis played an important supplementing role, since it allowed for a more detailed picture of activities carried out which support the achievement of EU sustainability objectives. Hence, document information was interpreted in relation to EU policies. For this analysis, annual work plans of the two networks were considered for a period of four years (from 2020 to 2023), as it aligns with major EU green policy objectives in place since late 2019/2020. A list of the interviews conducted as well as documents used for this research with the respective data analysed is available in the appendices of this thesis. This procedure to document analysis was guided by Bowen's (2009) much-cited contribution to the topic.

While the personal deadline for data collection was set to mid-September 2023, data analysis was due at the end September 2023. This was also the date for the milestone to be reached for writing the theoretical part (i.e., Chapter I), which started in July 2023 and was written simultaneously with data collection. The writing period for the empirical part of this thesis (i.e., Chapters III and IV) was set to one month, therefore, to be completed by the end of October 2023. The finalisation of this thesis entailed corrections and writing the remaining parts or paragraphs, to be concluded by mid-November 2023.

Chapter III The EEAC Network and the EIONET: analysing governance networks

3.1. Characteristics, structures, functions, and behaviours

Understanding the governance dynamics of networks involves the examination of their structure, characteristics and components, which will be a focus of this chapter. Hence, both networks, the EEAC Network and the EIONET, will be studied separately in-depth, considering interviews, documents, as well as extant literature. This entails the disassembly of each part of the networks and the illustration of the interactions of those, leading to a comprehensive image of the governance structures of networks. Moreover, their functions will be outlined, setting them in relation to activities and operations performed. These analyses will culminate in the elaboration of influencing factors to each network's behaviour, the latter referring to operations and activities carried out, and decisions taken. Hence, for both networks the focus lays first on their characteristics, composition, and governance, followed by their functions and in conclusion their behaviour. For the EIONET, an additional section will be inserted which outlines its recent modernisation process, highly relevant to new governance dynamics and behaviours. This chapter builds therefore the foundation for the comparative analysis in Chapter 3.2., which determines common factors to governance networks' behaviour.

3.1.1. The EEAC Network

The European Environment and Sustainable Development Advisory Councils (EEAC) Network started as an initiative of environmental advisory councils from Belgium, Germany, the Netherlands, and the UK in 1993 when they took a more systematic approach to exchange information on environmental issues in form of annual meetings (Macrory & Niestroy, 2004). The network then took gradual steps of institutionalisation: in 1996, a subscription fee was introduced to finance a secretariat post and a common website. Additionally, a small Steering Committee was elected to set an overall direction and to assist in representing the network throughout the year. In 2003, membership was broadened to affiliate sustainable development councils (Niestroy, 2005). After the annual conference in Budapest in 2014, the network decided to become a foundation under Dutch law to provide the network with greater stability and enhance management tasks. Currently, the network consists of 18 member councils, coordinated by a board and a permanent secretariat in the Netherlands. This section provides an in-depth analysis of

the EEAC Network's current composition and governance dynamics, as well as the functions and corresponding activities it performs. These insights allow to determine factors influencing the network's behaviour, which will be outlined at the end of this section.

Characteristics, composition, and governance

Member Councils. The European Environmental Advisory and Sustainable Development Councils Network currently gathers 18 advisory bodies from 14 European countries acting on a national or subnational level. Hence, each country may have one or more bodies participating in the EEAC Network. These councils are selected, in most cases by the national/regional governments or by parliaments, to advise their government on sustainability and environmental matters. In general, three different types of councils can be found in the EEAC Network. First, and most of the member councils, multistakeholder bodies consist of members who are chosen to be representatives of particular interest groups in society, ranging from academia, civil society, business and trade unions to religious groups. Thus, multi-stakeholder bodies seek to bring the various perspectives of these groups together. Second, in mixed expert bodies members contribute knowledge derived from their scientific background, and experience in business, public administration, NGOs and civil society organisations. They must act independently from the particular interest group they are connected to. Third, scientific expert councils are appointed solely ad personam. These councils can either be single-issue expert bodies which are set up to address specific issues such as air pollution or pesticides, or they can be multidisciplinary bodies of experts which bring together (usually academic) experts from various fields, including, natural science, social science, economics etc. (Baldock, 2017; Niestroy, 2005; EEAC Advisory Councils, 2019; Interview, 30 August 2023b).

For instance, the Hungarian National Council for Sustainable Development (NFFT) includes trade unions, the Hungarian science academy, NGOs, representatives of churches and parliamentarians with a total number of 26 members. The NFFT is thus a typical multi-stakeholder advisory body, whereby it is elected and supported by the parliament instead of the government. Contrarily, the Bulgarian National Advisory Council for Sustainable Development consists solely of deputy Ministers and Directors-General of the Ministries involved in sustainable development. The Council therefore acts as an interdepartmental consultative body, which is a unique composition in the EEAC

Network. The German Council for Sustainable Development consists of 15 members appointed by the federal chancellor, selected entirely based on their – scientific or not – expertise and background, which makes it a council of experts (*EEAC Advisory Councils*, 2019). Germany has two more member councils in the EEAC Network, namely the German Advisory Council on the Environment, consisting of university professors with specific knowledge of environmental protection, and the German Advisory Council on Global Change, which unites scientists from diverse backgrounds, ranging from natural sciences to social sciences, economics, engineering and psychology (*EEAC Advisory Councils*, 2019). Importantly, the network has currently two councils acting at the subnational level, namely the Advisory Council for the Sustainable Development of Catalonia as well as the Environment and Nature Council of Flanders. This means that the EEAC Network also brings a regional perspective into the spectrum, linking subnational, national and European-level viewpoints.

These few examples show the variety of councils present in the EEAC Network with differences in composition and expertise. As interview data has shown, it can be rather challenging to reach an agreement in multi-stakeholder councils, due to the divergent interests of, for instance, the economic sector and working unions to academia or civil society (Interview, 8 September 2023). In scientific expert councils, interests are much more homogenous which eases the decision-making process. Nonetheless, some key features share all advisory bodies: i) their advice is independent of the respective government, and it should be free from political opinion or private interests; ii) council work programmes are usually based on a combination of responses to requests from the government and topics the councils have chosen themselves; iii) councils decide whether to take on topics and to provide advice and, if so, what approach and working methods to employ, involving external experts and/or stakeholders as they see fit; iv) they are appointed by the national/regional government or head of state; v) they have their own budget and (mostly) secretariat, but the secretariats are in many cases administratively connected to the government they advise (Baldock, 2017).

Regarding secretariats, they represent a different tier within their advisory council. Although they are only indirectly related to the EEAC network, the secretariats, with full-time employees whose numbers vary from council to council, generate knowledge coming from the advisory bodies. Thus, the secretariats support the elected council

members, who are formally part of the EEAC Network but usually employed otherwise, in the advice they give to the governments. These secretariats benefit largely from the informal relation to the EEAC Network since informative sessions by the network on *how* to deliver advice, rather than *what*, to national/regional governments but also the press, which helps them communicate their findings (Interview, 30 August 2023b).

Over time, the composition of the EEAC Network member councils has varied significantly (Baldock, 2017). During the 1990s, the formative years of the network, the number of member councils increased steadily to 16 by the end of the century. The early 2000s meant a boom of new members as the network also started to include sustainable development councils (whereafter the addition was made to the network's name), and, on the other hand, a set of Eastern European councils joined, in some cases also prior to the EU enlargements. This led to a total of 32 member councils by 2008. However, the global economic and financial crisis impacted the network strongly, mainly due to national budget cuts for councils in several countries, which led to the dissolution of various. The Netherlands, for instance, have a deep-rooted tradition of advisory bodies grounded in the constitution and had placed three advisory councils in the network, which were merged into one in the years after the crisis (Interview, 8 September 2023). In other cases, councils were abolished entirely, so that the number of member councils sunk to twelve by 2012 and the permanent secretariat of the EEAC Network with an active office in Brussels had to be wound up and activities were pared back (Baldock, 2017). Over a period of ten years, only two councils, the Hungarian and the Dutch, paid the full membership fee to the EEAC Network, while others were either unable to pay the full amount or asked for a temporary reduction (Interview, 8 September 2023). This is an important observation in relation to the network's structure and stability since most councils, and by default their budget, are directly linked to their government. Hence, instability in the government can impact the councils and indirectly the EEAC Network. In the case of Hungary, the NFFT is established by the parliament, which thus can imply greater financial stability and, from a political point of view, greater independence as a rather government-dependent council may be more restricted in the selection of its topics (Interview, 8 September 2023).

Board. Another important part of the EEAC Network structure is the Board, which is particularly relevant in relation to the network governance. Overall, the network is

governed by the Annual Plenary Session (APS), which takes place once a year with a rotating venue and gathers all member councils of the EEAC Network. In the APS, member councils deliberate on past and future activities and goals, plus the Board is elected, which is responsible for facilitating the functioning of the network and representing the EEAC Foundation. The Board is elected for a two-year term and can be re-elected without limitations. The elected Board appoints a chair, a secretary and a treasurer, whereby one or more vice-chairs can be appointed from amongst the board members. Apart from the management of the Network, the Board is responsible for drawing up the annual work plans (AWPs), which have to be accepted by the APS before they come into force for the following year. Moreover, as representatives of the foundation, the Board may decide upon issues of a financial nature, such as the acquisition of properties up to certain limits, adopt resolutions on financial management issues, or amend and conclude other agreements up to a financial limit which were agreed by the APS. Resolutions are generally adopted by consensus whereby each board member holds one vote (Certified Statutes, 2015; Interview, 30 August 2023b).

Hence, what reveals the interview data is that the Board's role is threefold. First, it is administrative since it is, with the network being registered under Dutch law, liable for the foundation and has the responsibility to oversee and facilitate the network's functioning and financing. Second, it is managerial, as it gives the direction of the network's activities. A central aspect of this is the (approximately) monthly meetings of the board members where they deliberate and decide upon the agenda of the network. Third, the board has a representative role, "being the face of the network" (Interview, 30 August 2023b) and stands for the EEAC Network to the outside. Specifically, the board members, and in many cases the chair, speak on behalf of the network at conferences and talks or give workshops at European and international levels. The board members' informal links and partnerships with outsiders, ranging from other networks to European institutions, are a central aspect of the network's representation (Interview, 30 August 2023b).

In this regard, the board members are undoubtedly the central decision-makers in the EEAC Network. Interestingly, however, power distributions within the board are somewhat uneven as some decisions in certain issues concentrate around three board members. The treasurer of the board, who oversees financial matters, often possesses a

heightened influence in financial discussions or expediting requests related to financial considerations. Furthermore, other board members, the Chair of the network as well as the Vice-Chair, who are simultaneously chairs or co-chairs of EEAC working groups, which I will come back to later in this chapter, exhibit a deep commitment to the network. Their roles require more significant participation in daily decision-making, leading to a notable share of responsibility for urgent and routine decisions falling on their shoulders. Yet, it is important to emphasise that most decisions are typically collaborative in nature and consensus-based, involving input from all board members, precluding individual board members from unilaterally making decisions (Interview, 30 August 2023b).

Horizontal decision-making applies even more when it comes to the network's agenda. The challenge thereby lies in effectively conveying the network's intentions. Any proposed actions must undergo approval by the member councils. Additionally, Board members do not typically set a political direction. Consequently, the decision-making process is contingent on the desires of the member councils. This can slow down the process because proposing concrete ideas necessitates prior collaborative brainstorming. However, this collaborative process involves engagement without predetermined outcomes or a clear understanding of, in that case, working group sessions' objectives (Interview, 30 August 2023b). This situation underscores the tension between active engagement or participation and democratic decision-making processes.

Working Groups. Having mentioned working groups (WGs) of the EEAC Network, they are the core point of interaction between member councils as well as illustrate the network's path and momentary interests, being divided into themes. The WGs basically reflect, as interviews have shown (Interview, 30 August 2023b) the member councils' interests and their nature, meaning that there are mainly two types of councils present in the network, some that focus rather on climate change and environmental issues and others that concentrate on sustainable development. The latter has been a consistent WG theme over time as well as the one on climate change, while other WGs change their theme more frequently depending on the councils' interests. The WGs are set up informally based on the interest and availability of participants and chairs in these WGs. Hence, council members join WGs based on their current work within the advisory bodies at the national level. Often, the councils decide to engage different members of their council in distinct working groups, so that they actively participate in all WGs of the

EEAC Network. This engagement within WGs is of a voluntary nature. The decision regarding the positions of WG chairs, as WGs are usually led by a chair and a co-chair from two different councils as well as the network coordinator, is normally made in the Annual Plenary Session where the new chairs are introduced (Interview, 30 August 2023b).

Interestingly, the currently active WGs (climate change and energy, ecosystem services, sustainable development) are each chaired by a board member alongside nonboard members from other councils. Working group meetings, which take place approximately five to six times a year, are key encounters not only for the participating member councils but also for the board members. It is during these engagements that they have the opportunity to meet and discuss with council members about ongoing topics and activities in the WG. Subsequently, during board meetings, board members deliberate on the developments within their respective working groups and have the opportunity to formulate a plan of action for the forthcoming months, thus setting a direction for the network's activities (Interview, 30 August 2023b). This brings us back to the previously discussed issue of horizontal decision-making and considering councils' needs in effective mediation of those on a network level. Hence, regarding decision-making authority, it is important to acknowledge the pivotal role played by the working group chairs in shaping the network's agenda and annual work plans. The board has traditionally refrained from intervening in decisions regarding specific topics within working groups. Instead, such determinations rest largely with the working group chairs and co-chairs, of whom three are currently also holding a Board position and therefore take up a double function in the network (Interview, 30 August 2023b). Notably, interviewees have highlighted the difficulties the network encounters oftentimes when it comes to the selection of WG chairs, since, as already mentioned, council members are usually employed otherwise and have limited time resources. This also challenges efforts to balance chairs from a geographical as well as gender perspective (Interview, 8 September 2023).

Network Coordinator. During the EEAC's "years of blossom" (Baldock, 2017) it was up to three persons working full time for the EEAC network. Currently, the foundation has one single employee, who performs the role of network coordinator, being in charge of the day-to-day business of the EEAC Network. This involves tasks such as

organising meetings, communicating among member councils and bringing their interests forward if requested, organising common activities of the network, and also leading, along with the chairs and co-chairs, the EEAC working groups. Most interestingly, interviewees (Interview, 30 August 2023b; Interview, 8 September 2023) highlighted concordantly the importance of the coordinator's neutrality within the network. Having instead someone from a single council in the position could introduce political sensitivities or conflicts. For instance, the coordinator's role is not meant to push for certain activities, projects or topics, and should only take the lead in certain activities at the councils' request.

These issues have sparked discussion within the network about relocating the coordinator's position to Portugal, instead of the office of the Dutch Council for the Environment and Infrastructure in the Netherlands, and the consideration of rotating their location periodically (Interview, 30 August 2023b), which demonstrates the importance of the coordinator's position and how it might impact the network's functioning and decision-making. This is particularly important when it comes to sensitive decisions, which may also depend on meeting locations. While locations such as Brussels are normally convenient for Northern or Western European countries, it is not for Eastern European councils like Romania, Montenegro, or Hungary. Hence, the network has made an effort to work against this "mindset of central Europeanness" (Interview, 30 August 2023b) and balance councils' interests, which is also reflected in the APSs where venues rotate each year to another member country. In this context, central coordination plays a crucial role and according to interview results, this coordination is most effective neutral, without being biased by council preferences. The EEAC governance structure is illustrated in Figure 3.1.

Functions

Overall, the EEAC Network has three main functions, as found according to interview (Interview, 8 September 2023; Interview, 30 August 2023b) and especially document analysis data (The Board of Foundation E.E.A.C., 2022).

a) A knowledge exchange platform. As it is stated on the EEAC's website, "[t]he complexity of a transition towards a more sustainable Europe, which addresses the environmental, economic, social and cultural dimensions of sustainability necessitates numerous systemic transitions. The complexity of such transitions

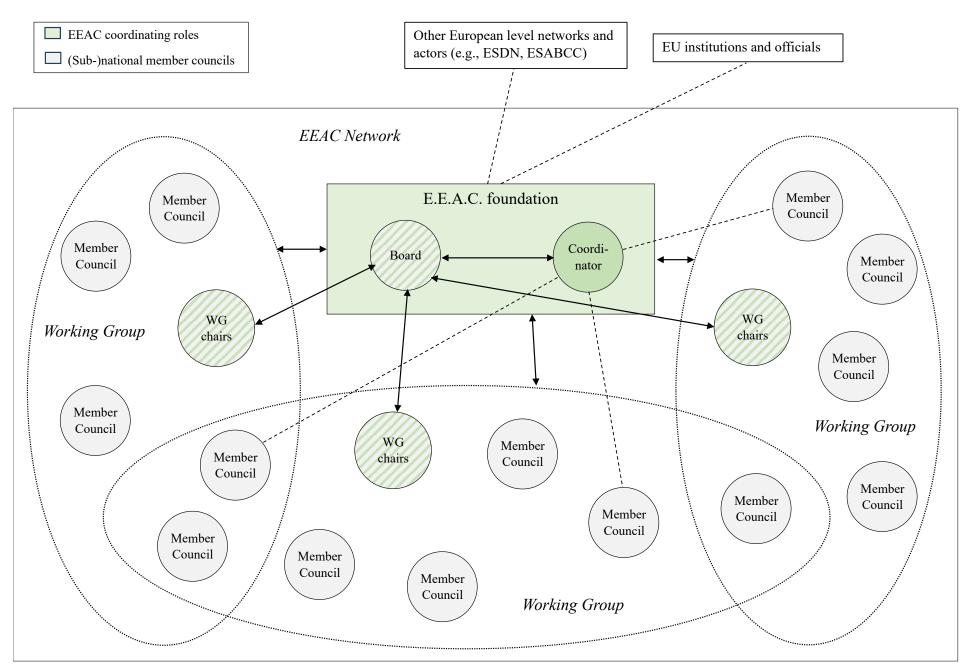


Figure 3.1 Governance structure of the EEAC Network. Source: Author's own illustration.

requires holistic, cross-silo and cross-border solutions" (EEAC Network, 2023). This is why the network seeks to connect experts and stakeholders from the advisory councils to share their knowledge, experience, and perspectives in order to exchange viewpoints and establish a space of mutual learning among its members. This framework transcends traditional borders and brings together individuals from different disciplines, trying to adopt a cross-sectoral and more holistic approach to environmental and sustainability governance, while also adopting a long-term vision of green policymaking.

- a) An operational framework for inter-council cooperation. Council members coming from academia, the public and private sector as well as civil society with experience in issuing independent advice to governments and parliament, interact through joint activities, knowledge exchange, dialogue and informed debate. The goal thereby is to enhance mutual support among these councils by enriching their viewpoints with transnational and trans-sectoral insights. This cooperative framework of the EEAC Network particularly aims to improve the advice the councils give on national and subnational levels.
- b) A liaison of the (sub-)national and the European policy level. The EEAC Network functions as an intermediary, bridging the efforts of national and subnational councils with those occurring at the European policy level. The network undertakes initiatives to ensure its members remain well-informed about imminent or ongoing policy advancements at the European level that pertain to the undertakings of these councils. Conversely, the network also seeks to bring to attention the work of its member councils to relevant European and, occasionally, global partners.

In the context of this, it is worth recognising that advisory councils play a pivotal role in fostering stakeholder inclusion, facilitating cross-border thinking, and inter-sectoral collaboration (*EEAC Advisory Councils*, 2019), whereby the network acts therefore as a 'broker', bringing these interests together. This synergy between advisory councils and the network showcases the horizontal, bottom-up governance approach of the EEAC Network. Factors such as collaboration, inclusivity, cross-sectoral and transnational integration as well as a long-term vision for environmental policymaking and advice result to be central to the network's effective functioning.

To perform the functions discussed above, the network makes use of a set of activities, ranging from conferences and workshops to the development of policy briefings and position papers. In the following paragraphs, I will particularly look at these activities performed in 2022, due to their detailed outline in the state of play report (The Board of Foundation E.E.A.C., 2022), in relation to its three functions. These insights are particularly relevant for a better understanding of the network's governance dynamics in relation to its functions and, eventually, what factors influence its behaviour. First, I will look at the activities on a network level, followed by the ones on a working group level.

On a network level, the EEAC holds, as already anticipated previously, an annual conference, which is organised each year by one of the member councils of the EEAC Network or a consortium of councils within their respective country. The conference gathers the members of the advisory bodies as well as invited speakers for panels, such as experts or other interested stakeholders (The Board of Foundation E.E.A.C., 2022). This event is fundamental for the functioning of the network as it is the only occasion where all members are gathered and in a face-to-face setting. This also applies to the working group sessions as the WG meetings take place in a virtual format over the year and this is the opportunity for the WGs to deliberate on the developments and activities within their respective groups. The conference is dedicated to one particular theme decided by the hosting organisation(s) and, as interview data (Interview, 30 August 2023b) revealed, this also illustrates the organisational as well as cultural differences among councils, as they tend to set up the event differently, putting distinct themes into focus. Moreover, at the end of the annual conference, the Annual Plenary Session takes place, where board members are elected or new WG chairs get introduced, but also where members discuss past and future activities of the network. This already sets a direction for the network in the subsequent year as it gives input on thematic areas of interest relevant to the elaboration of the earlier mentioned annual work plans. Hence, these observations align with earlier illustrated governance mechanisms, as the APS lays the foundation of the EEAC's thematic direction.

This foundation is further fostered by the Board. In this regard, another activity on the network level is the monthly board meetings, where board members deliberate on developments within the WGs but also discuss the network's plan of action in the medium to long term. This also entails the identification of the so-called thematic areas of interest, according to which the network sets up or continues with its WGs and their activities (Interview, 30 August 2023b). Thus, these areas of interest create a thematic orientation for the network and are approved by the member councils. This not only demonstrates the network's inherent participative and horizontal decision-making but also how its behaviour is closely tied to the member councils themselves and their interests. Based on the thematic areas of interest, the board elaborates the annual work plan. The AWP is the network's guiding document, where member councils are related to the thematic areas of interest they are planning to work on in the respective year. Moreover, the working groups articulate in the AWP more specific topics they are going to address, such as specific EU policies or strategies related to the areas of interest (The Board of Foundation E.E.A.C., 2022), which I will come back to in more detail in the last chapter of this work.

A third and rather new activity on the EEAC network level is the EEAC/ESDN European Council Presidency Exchange. This is a collaboration with the European Sustainable Development Network (ESDN) in order to establish recurring exchanges with delegates from the Council Working Party on the 2030 Agenda for Sustainable Development as well as delegates from the European Commission. The purpose of this exchange is to facilitate inter-collegial discussions regarding the sustainability challenges facing Europe, particularly with regard to the momentary Council Presidency and its priorities. This activity is particularly relevant for the third function of the network, namely the EU-network liaison, as the participants on the EU and member state level exchange thoughts, plans, and strategies two times a year. Hence, it is both about keeping track of policy developments on the EU level, but also delivering insights and ideas from a national council perspective to EU institutions (The Board of Foundation E.E.A.C., 2022; Interview, 30 August 2023b; Interview, 8 September 2023). Although this activity is primarily carried out by members of the EEAC WG on sustainable development, it exceeds the inter-working group collaboration and facilitates exchange on a network level.

Similarly, before the last elections of the European Parliament, and thus the introduction of the current Commission in 2019, the EEAC Network participated in a recurrent stakeholder consultation set up as an advisory body to the then-Juncker Commission. These formations are, however, oftentimes of a political nature: "Mr Juncker was not so committed to sustainable development policies and Mr Timmermans

wanted to make some efforts to increase the level of commitment ... I think that this working group partly was the tool of Mr Timmermans' political efforts to make himself more important as a politician on an EU level" (Interview, 8 September 2023). Being active for only about one and a half years, the members of this advisory body suggested a continuation of it after the election, which, however, did not succeed.

What we can take from these dynamics is that, for one, showing the enthusiasm of stakeholders and having received positive feedback from the collaborations, these set-ups are important encounters for participants, particularly from an advisory perspective. These are the few opportunities where national advisory bodies and stakeholders can come into direct contact with EU institutions and not only have an enhanced view of policy developments on the EU level but, more importantly, they can deliberate directly on their ideas, perspectives, and developments on a national level with EU delegates, which therefore exceeds the communication of position papers, for instance. In short, direct encounters with EU institutions represent an added value for the EEAC members, enhancing their position on an EU level. On the other hand, these encounters depend largely on the willingness of EU institutions or even single delegates to establish and sustain such cooperations, often bound to momentary circumstances. However, being a member council of the EEAC Network represents an added value for these advisory bodies since it enables them to establish connections at the EU level.

On a working group level, most of the detailed work takes place, including regular meetings, publishing occasional papers and drawing up formal statements on positions. More specifically, the WGs decide on their activities based on the focus areas, they want to orient themselves during a year. For instance, the WG on climate change and energy focused in the last year on areas such as geopolitical developments and their impact on the European energy system, the European policy processes, the exchange between advisory councils, as well as the building of a relationship with the European Scientific Advisory Board on Climate Change (ESABCC). Hence, the WG conducted the following activities: preparing briefing notes on policy developments; hosting online policy briefings with external experts; facilitating discussions on topics like climate change and agriculture, hydrogen, and decarbonization; engaging with European institutions to support advisory councils (The Board of Foundation E.E.A.C., 2022).

The WG on ecosystem services held internal workshops on sustainable food systems, organised an expert hearing, facilitated interaction with European institutions, and issued briefing notes on policy developments. WG on sustainable development, conducted internal workshops on sustainability priorities, engaged with European institutions through exchange sessions, organised webinars, workshops, and policy briefings, and launched a podcast series on sustainability topics (The Board of Foundation E.E.A.C., 2022). Due to a lack of interest coming from the member councils (Interview, 30 August 2023b), the currently paused WG on Planetary Health hosted, in 2022, online meetings and an in-person conference with the Planetary Health Alliance and facilitated exchanges for the participating advisory bodies on Planetary Health. Additionally, the network provides other activities and services, mainly under the collaboration of the Board and the WGs, such as weekly EU Green Deal news updates, collegial online coffee breaks, and digital communication through the website, newsletters and social media (The Board of Foundation E.E.A.C., 2022).

This overview of the network's activities is particularly relevant to understanding how concrete actions contribute to its functions. In sum, the network supports its function as a knowledge exchange platform through WG meetings, workshops, conferences, WG or council-produced policy briefings as well as other network-level communications. WG and annual meetings, but also internal workshops contribute simultaneously to enhanced inter-council cooperation. Yet this function has the potential to be supplemented by more variative activities. The network and EU policy-level liaison function is strongly supported by EU-level exchange with EU institutions, the most apt example is the Council Presidency exchange. However, this kind of activity is often determined by the willingness of EU bodies to participate in such exchange. The network must therefore ensure its relevance and visibility while strengthening its EU level collaborations, since other liaison activities, such as the production and delivery of decision papers and the communication of EU policy developments to member councils have a limited power to effectively contribute to the policymaking process. As the EEAC Network's success is somewhat contingent on the engagement and commitment of its advisory bodies, central and strong coordination can facilitate and strengthen an active and relevant network. Additionally, efficient and transparent communication of member councils' interests at a

network level but also of salient developments at the EU level must be ensured in order to address those effectively in comprehensively.

Moreover, the network's activities, in their nature, frequency and type, can also be looked at as expressions or rather indicators of its behaviour, along with its operations and decisions taken. This research has found that there are both internal and external factors influencing the network's behaviour (summarised in Table 3.1). Regarding the former, interviews (Interview, 30 August 2023b; Interview, 8 September 2023) revealed that one of the driving factors is the member councils' interests, and related to this, their engagement with them, i.e., translating them into activities and actions on an EEAC Network level. Activities are mostly initiated by councils themselves, willing to collaborate on certain topics with other councils. For example, a webinar on green finance, held by the EEAC Network in spring 2023, was initiated by the Belgian Federal Council for Sustainable Development. Similarly, the Hungarian NFFT took the lead within the WG on Sustainable Development in the preparation of a position paper concerning environmental taxation in the EU. At the same time, the translation of councils' interests into concrete projects which are of value for them poses a great challenge, "because there is always this nagging feeling of wanting to do more" (Interview, 30 August 2023b): Particularly some councils actively seek greater engagement and participation, for instance by pursuing international representation and participation in events to enhance their standing and secure funding. Others, however, prefer a more selective approach, only engaging in activities they see as directly valuable. This diversity in approaches often leads to differences in opinions about what is truly useful or necessary for the network, creating tensions among member councils.

Another key factor influencing the network's behaviour is the member councils' compositions and working methods. As especially revealed in the first part of this section, advisory bodies of the EEAC Network differ greatly in terms of participating members and structure, but also in decision-making processes. Councils often navigate sensitive issues, with decisions typically made through voting and sometimes involving time-consuming bureaucratic processes. Hence, council secretaries may feel held back by administrative duties before committing to other engagements related to the network. As one interview partner stated: "I don't expect any explosion in the activities of the EEAC Network" (Interview, 8 September 2023), which is also related to the resources available

to the councils, which are generally rather limited as we have seen previously. Withincouncil working methods and circumstances are thus an important aspect to be considered when analysing the EEAC Network as a whole. This is also reflected in the cultural differences of these bodies. The distinctions between certain councils are quite apparent when it comes to their approaches to preparation. Some councils exhibit a proactive stance, preferring comprehensive information and weeks of planning before providing advice. In contrast, other councils adopt a more informal approach, with varying interpretations of deadlines. Additionally, some councils have less rigid hierarchies, with the secretariat and council members operating at similar levels of influence.

Due to the horizontal decision-making in the network, the agenda strongly reflects the member councils' priorities, as illustrated earlier in this section. However, the central steering of both the board and the network coordinator remains central to the network's effective functioning, which also includes balancing interests with relevant activities. While decisions are typically based on consensus, the board members' dual roles as WG chairs afford them a central influence on the network's strategy and direction. The network coordinator, acting as a 'neutral core', facilitates communication and collaboration among member councils, and leads, together with the chairs, WG activities. This underscores the importance of a central steering mechanism free from bias toward any specific council's interests.

With regard to external factors influencing the network's behaviour, I found European and international developments to be of great relevance. The councils within the network convene to discuss European policies and one of their valuable resources is the provision of information on EU-level developments. As a result, the activities often stem from these discussions. In the case of the ecosystem services WG, for instance, dialogues revolve around EU soil policy, EU water policy, and cross-border cooperation among countries. Many of these issues present shared challenges for various nations, such as soil quality and water scarcity, which opens possibilities for two or more councils to collaborate on cross-border initiatives, bringing a national perspective into the dialogue (Interview, 30 August 2023b). The EU agenda significantly influences these discussions, and it is not uncommon for national councils to feel somewhat overwhelmed by the pace of EU-level developments, as they act primarily at the domestic level. This aspect will be further discussed in the last chapter of this thesis. Similarly, the EEAC Network keeps an

eye on developments on a global level and seeks to act accordingly. As interviews showed, the WG on sustainable development is particularly active in this regard. For instance, councils in the WG have looked at the Voluntary National Reviews (VNR) process of the United Nations (UN), which seeks to identify challenges concerning the implementation of the SDGs of the 2030 Agenda. In the WG, the councils specifically seek to gain an understanding of how to produce meaningful reports to deliver on an international scale. In the EU's VNR of July 2023, the WG on sustainable development actively contributed to this review, participating in consultations with European Commission staff to ensure its quality and transparency.

Table 3.1 Factors influencing the EEAC Network's behaviour.

Internal factors	Member councils' priorities and engagement
	Member councils' structure and working methods
	Resources (on both member council and network level)
	Steering by board and network coordinator
External factors	Strategies and policies on EU level
	Developments on a global level (e.g., SDGs)

Source: Author's own findings.

3.1.2. The EIONET

The European Environment Information and Observation Network (EIONET) was established in 1994 by regulation together with the European Environment Agency (EEA) under Council Regulation (EEC) No 1210/90 / 07.05.1990, revised afterwards and consolidated under (EC) No 401/2009 / 23.04.2009. EIONET provides data, information and sustainability assessments for Europe aiming to give "EU policymakers and the public the best available knowledge to reach agreed environmental and sustainability targets" (EEA, 2023) but also to monitor the effectiveness of existing policies and measures.

The EIONET is a partnership network of the EEA and its 32 member and six cooperating countries. The EIONET therefore consists of the EEA itself and a network of more than 400 national institutions. Each country has an assigned institution as National Focal Point (NFP), which is represented by usually an individual expert, as well

as a number of thematic institutions called EIONET Groups. Moreover, the network is supplemented by currently seven European Topic Centres (ETCs), which are consortia of organisations dealing with specific environmental topics. This structure will be looked at in more detail in the present section, in order to understand the governance dynamics within EIONET.

Characteristics, composition, and governance

European Environment Agency. The EEA is an independent EU agency consisting of 32 member countries (the EU member states as well as Iceland, Liechtenstein, Norway, Switzerland and Turkey) and six West Balkan cooperating countries (Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, Serbia and Kosovo), which are integrated into the EIONET. Regarding the EIONET, the EEA is responsible, according to its regulation, for its set-up and coordination. This includes various tasks related to data collection, analysis, and coordination, supporting monitoring efforts, stimulating the exchange of information among members, and diffusing available data and information to policymakers and the public (EEA, 2019a, 2023).

Concerning its governance structure, particularly the EEA Management Board, the Executive Director and the Scientific Committee are relevant to the EIONET (EEA, 2019a). The Management Board (MB) is the decision-making body of the EEA, consisting of one representative from each member state, two members from the European Commission and two representatives designated by the European Parliament. It decides on the adoption of the EEA strategy and budget approval, appoints the EEA's Executive Director and elects a bureau, which takes executive decisions within the Agency. The Scientific Committee is an independent advisory body, providing the MB and the Executive Director with scientific advice on the areas addressed by the EEA, this includes issuing opinions on the EEA's work programmes, the recruitment of scientific staff as well as other issues related to scientific activities. The Executive Director is responsible for the day-to-day management of the EEA, assisted by the Senior Management Team. The latter consists of the Executive Director, a scientific advisor and the heads of programmes, which are responsible for the operational functioning of the EEA's programmes. Their focus ranges from administration, communications, data and IT, environmental issues such as biodiversity, climate change and sustainability transitions, to coordination. The latter, the Programme on Coordination, Networks and Strategy (CNS), is of particular relevance as it is responsible for the coordination of the EEA interaction with the EIONET. This includes tasks such as networking and communication exchange with the EIONET countries, ensuring continuous information flows to the network on EEA activities, following the projects with EIONET involvement, or liaising between the EIONET and other networks (such as EPA – the network of heads of European Environmental Protection Agencies). This coordinative task takes a rather cooperative approach between the EEA and the National Focal Points, which represent the liaison between the national and the European level (see below). Moreover, the CNS Programme has been particularly important for the EIONET restructuration starting in 2021, which brought changes to the governance but also the priorities of the network, which I will come back to later in this chapter. Additionally, the CNS Programme is responsible for the implementation of the EEA-EIONET Strategy 2021-2030 (Interview, 30 August 2023a).

Besides the EEA-EIONET Strategy, the EEA's Single Programming Document (SPD) sets out the work plans for the EEA and the EIONET, covering a three-year period, yet with a focus on the first year, as it contains the annual work programme (AWP), and a new version is prepared in advance to each year. The SPD is developed by the EEA with approval from the EEA MB, though during the drafting period, National Focal Points organise a national consultation process which includes a set of comments by the national EIONET networks to the EEA. After a revision of the SPDs, more detailed activities are set out by the EEA, such as the European Topic Centre work plans. According to interview data, the principal guidance in the development of the SPD is the EEA-EIONET Strategy, yet certain aspects are taken into consideration, particularly requests coming from the European Commission as well as the member countries. Moreover, certain aspects within the document are tied to obligations within the regulation requirements, which especially applies to report obligations on the state of the environment. Put simply, there are "some elements that are not really up for discussion ... but there are other elements where we [the EEA] think we could benefit from more input from our stakeholders" (Interview, 30 August 2023a).

Hence, for the SPD of the current year 2023, the EEA requested a consolidated set of comments from the national networks, thus demanding a more strategic approach to this collaboration: "It requires a bit more work from the other side [the national networks],

but ... it creates a more thorough discussion amongst the member countries about the content of the work programme and for us [the EEA] it's easier to comment on 20 points that they have in common instead of 120 points that come from all different countries. So, I think it's from both sides perceived as successful" (Interview, 30 August 2023a). However, the input coming from member countries is still based on comments *after* a draft has been created by the EEA – an approach that has potential to undergo certain improvements regarding co-creation, as one NFP also noted: "[I]t has improved and I'm sure that it should improve more because now we still get a draft of a work programme, but I think that EIONET Groups should be involved before there is a draft because ... they should be making *input to* the draft instead of just making *comments on* the draft" (Interview, 15 August 2023). Indeed, under the modernisation process, the network is working on involving the EIONET Groups earlier in the planning for the work programme.

National Focal Points. The National Focal Points (NFPs) play a central role in the EIONET's governance structure as they bridge the national networks, consisting of NFP and EIONET Groups (see below) with the EEA. NFPs are national institutions, often environmental ministries or agencies, and are mostly represented by an expert or a group of experts, who are responsible for establishing and coordinating their national network and the information flow between their country and the EEA (EEA, 2019a). NFPs have regular contact with their national network, the EEA MB, the EEA, and often other NFPs. However, working methods as well as organisational set-up of NFPs and their national network differ in each member country. This is partly the result of the varied structures in the countries' environmental administrations, as well as the corresponding information systems and networks.

Considering these aspects, it is important to look at the NFPs' interactions with other parts of the network in order to understand the governance dynamics of EIONET. First, the interaction between the NFPs and the EEA MB is an essential connection between the European and national levels for EIONET, as this exchange feeds the decision-making process of the MB. These interactions entail joint MB/NFP seminars organised often on an annual basis, guidance and support by MB and bureau members to NFPs, and the NFP/EIONET meetings, where MB members and NFPs deliberate on MB agenda items, especially key areas of the EEA work relevant to NFPs. During these meetings, taking

place three times a year, proposals and perspectives can be raised from part of the NFPs with the aim of briefing MB members previous to their MB meetings. This includes discussions related to information and status reports on key areas, arguments put forward by NFPs for MB members, deliberations on how to enhance EEA support, impact and visibility among member countries, as well as necessary actions to increase the EIONET's contribution to major European initiatives, which also comprises possible ways to better cooperate with other relevant networks. Concrete examples of these items for discussion include EEA strategies, plans and programming documents, ETC programmes and plans, proposals for launches of major reports, developments related to EIONET data and information flows and indicators, and developments on the national network level. Besides these formal encounters, NFPs often interact closely with their respective EEA MB member country representative, whereby the NFP assists them with day-to-day decisions. This is also a result of the EIONET modernisation (see below), as these MB members now receive a country view on certain issues which impact their decision-making. Moreover, NFPs also engage with National Data Flow Coordinators (see below), which particularly involves tasks related to national data delivery and troubleshooting thereof (Interview, 9 August 2023; Interview, 15 August 2023).

As anticipated interact NFPs often with each other. One format for this interaction is the so-called Troikas, which are teams of three NFPs supporting the EEA in the preparation of the NFP/EIONET meetings (EEA, 2019a). Based on a rotation system, which seeks to balance the composition with experienced and new NFPs as well as with a variation of countries, a Troika serves for three NFP/EIONET meetings (Interview, 9 August 2023). Tasks related to the Troika include the preparation and chairing of the NFP pre-meetings, which are encounters of the NFPs prior to the NFP/EIONET meetings in order to draw a consolidated opinion on key issues but also exchange ongoing issues within their national networks and issues on EIONET level. Additionally, the Troika prepares the NFP/EIONET meetings by assisting the EEA to set up a draft agenda and consulting NFPs on it, and reporting on the pre-meeting (EEA, 2019a).

Another format of interaction of NFPs is the NFP Working Groups (WGs), set up rather informally, either by NFPs themselves or the EEA, when considered necessary to work on a specific task or topic. WGs normally consist of NFPs, ETCs and EEA representatives and are established voluntarily, based on the time, interest and

commitment of the members (Interview, 9 August 2023). Hence, these WGs are set up for a limited period of time. For instance, the WG on the EIONET modernisation and implementation has been set up to facilitate an efficient restructuration process of the network, while the long-running WG Copernicus, a project focusing on satellite data, sought to understand how environmental monitoring can be enhanced. This can also be seen as a response to the lack of efficiency with regard to Copernicus activities, particularly what concerns the use of new technologies (European Commission, 2018). Rather than focusing on specific topics, NFPs can also collaborate in a steering group, for instance, to bring national interests forward within the network and at the EEA. Hence, WGs can serve for distinct purposes, ranging from increased efficiency of the network and coordination to national interests. Ideally, to represent the most complete view, the WGs should consist of experienced as well as new NFPs, geographically diverse participants, and representatives from countries of different sizes (EEA, 2019a). Thus, the WGs have mainly an added value for the NFPs themselves, serving as knowledge exchange platforms.

In sum, the NFPs' work is strongly based on communication, networking and exchange, which seem to be vital factors for a well-functioning and effective EIONET. Their position as the intersection between EEA and member countries within EIONET appears to be fundamental to effectively communicating the needs of the countries to the EEA and thus serve a as port of call for the national experts in the EIONET Groups and sub-groups when it comes to the delivery of information. The exchange with colleagues throughout Europe on ongoing issues, ranging from reporting obligations to data delivery matters, creates an added value as NFPs and other parts of the network "don't work in a vacuum" (Interview, 9 August 2023). Along with this, another important factor in this regard, which particularly applies to the roles of the NFPs, is trust. Interviews with NFPs revealed that especially experienced NFPs seek to foster professional relationships with NFPs from other countries since it turns out to be simpler to tackle common issues together. However, this collaboration also depends on the consistency of the national setups for EIONET, meaning that in some countries NFPs change more frequently, which is related to the domestic institution in charge of EIONET. In some countries, NFPs are in the ministerial setting, which means that they might change when their government changes. This inconsistency may also affect the overall quality of the national network in

terms of data delivery and knowledge base, as such countries "don't put so much effort into that ... So, it would be better if we [NFPs] were EEA employed ... or at least not employed by ministries" (Interview, 15 August 2023). These insights demonstrate the need for a certain level of stability within the network, which, however, is challenged by national varieties and working cultures. Moreover, the degree to which NFPs can engage in the network also depends on the resources available. Countries which provide fewer resources to their national EIONET network, usually have a NFP who only uses part of their time to dedicate to their role as NFP and thus to the network. This eventually affects the capacity of the country to deliver timely and qualitative information to the EEA but also diminishes the overall integration of the country in the EIONET.

National Data Flow Coordinators. As national-level counterparts to the NFPs, the National Data Flow Coordinators (NDFCs) are responsible for ensuring a coherent and coordinated data flow between the member countries and the EEA, overseeing the collection, collation and sharing of data. This contains tasks such as monitoring the timely delivery of national data, coordinating country consultation of the annual evaluation of the EIONET Core Dataflows and offering feedback on evaluation scores at annual meetings, keeping an overview of reporters' practices, and contributing to the building of data sharing capacities at national level (EEA, 2023). Hence, the NDFCs work closely with data reporters, who are appointed individuals responsible for the communication of environmental data such as water, soil, air, forests etc and quality check it. The data collected is then gathered on EIONET's reporting system Reportnet, making available a series of data and information on the various environmental issues of competence of EIONET. Depending on the country, largely on its size, data is either collected on a national or regional level, in some cases also local, contingent on the type of data. The role of the NDFCs is thereby to coordinate this process and ensure timely delivery. This function is, since the NDFC's position was only established in 2021, assisted by the NFP. (Interview, 30 August 2023a)

EIONET Groups. EIONET Groups (EGs) have replaced, since 2022, the previously called National Reference Centres (see below for details about the EIONET modernisation) and consist of designated national experts. For some larger and more integrated groups, thematic sub-groups support the EGs, especially to provide clarity on the roles of specific technical expertise included within the larger and more integrated

EGs, and to make the contributions of the thematic experts visible in the new structure. For instance, the EIONET Group on human health and the environment is supplemented with the thematic groups air pollution, air quality and emissions; chemicals; and noise. Since January 2022, there are 13 EGs on the following topics: biodiversity and ecosystems - integration of knowledge for policies; biodiversity and ecosystems - cumulative pressures and solutions; circular economy and resource use; climate change impacts, vulnerability and adaptation; climate change mitigation and energy systems; communications; data, technologies and digitalisation; food systems; foresight; human health and the environment; land systems; mobility systems; and state of the environment (EEA, 2023). By having 13 EGs supplemented with some subgroups, the EIONET seeks to establish a more integrated approach to the topics. While the subgroups on a national level may exert very distinct activities, group leads at a both national as well as EEA level facilitate the overall coordination and communication of each of these subgroups (Interview, 30 August 2023a).

EGs contribute to EEA-EIONET activities and have three fundamental roles: i) facilitating the work between EEA and the countries; ii) to ensuring the two-way sharing of knowledge and information through regular interaction between the EIONET Groups and the EEA; iii) supporting the implementation of the EEA-EIONET Strategy 2021-2030 (ISPRA, 2023). These groups have therefore a set of tasks, including the development and knowledge sharing on the group topic and integrated cross-cutting activities, aiming to encourage active participation in various activities such as workshops, webinars, and co-creation projects, where examples of good practice, national views, and expert input can be shared. Concrete technical contributions are also expected, including the development of new indicator evaluation methodologies, EIONET reports, and innovative uses of data and digitisation technologies. Moreover, EGs collaborate in cross-cutting processes such as the implementation of environmental agreements and frameworks, such as the 8th EAP. EIONET member countries and the EEA are called upon to jointly define priorities for the group's work and develop an action plan. Additionally, EIONET Groups should liaise with relevant national organisations and networks, climate advisory bodies and research institutions (EEA, 2023; ISPRA, 2023).

As the EIONET underwent a modernisation process in 2021-22, which affected the structure of the EGs substantially, the EEA initiated a consultative process with NFPs in

order to meet needs on both sides – for the EEA in terms of their mandate and objectives and for the member countries in terms of capacity development. This way, thirteen EIONET Groups under the themes named above were established whereby NFPs together with the EEA MB country representatives were responsible for recruiting suitable members coming from a wide set of organisations aligning with a certain rationale and type of profile set out for each group. Hence, the purpose of this process was twofold. On the one hand, to ensure that the correct information from the countries is delivered to the EEA and, on the other hand, to enhance capacity building on a national level. The latter has been of particular relevance as countries' capacities but also expertise generally differ from each other (Interview, 30 August 2023a). Thus, while the EEA was giving guidance on what kind of expertise is required within the EIONET Groups, the NFPs were responsible for setting up their national networks (largely independently) following the approval from the EEA MB (Interview, 9 August 2023). Each EG is further led by one or more EG national coordinators, responsible for the overall coordination of their respective EG and the thematic subgroups (Interview, 15 August 2023).

What stands out from the interviews conducted is that the EEA is seeking to work with the EGs, and member countries in general, on equal footing:

"[W]e're not looking at compliance, that's not our job. We are not policing. We are trying to work together with the countries on an equal basis. If you look at the European Commission ... they have a different role. They can start infringement procedures if countries are not delivering, we are not, and I think that's a huge difference. And that's a huge advantage in our work ... so we can develop knowledge together, we can understand what their [the countries'] needs are and help them to develop capacities to help us" (Interview, 30 August 2023a).

In other words, although the work programme and orientation of activities of the national networks are set rather by the EEA, the collaborative approach is rather different, seeking cooperation and enhanced inclusion.

European Topic Centres. Particularly relevant for knowledge generation within EIONET are the European Topic Centres (ETCs), which are consortia of organisations across EEA member and cooperating countries focusing on specific environmental topics. These thematic centres of expertise are selected and contracted by the EEA following a European-wide competition and perform specific activities defined in the EEA's Multi-Annual Work Programme (MAWP) and the annual plans. Hence, being formally part of

the EEA, the consortia work on the EEA's arms-length under a multi-year contract. Each ETC consists of a lead organisation and a set of partner organisations, which pool together their resources in a specific area of expertise. Coming from various countries, ETCs facilitate information and data sharing, develop European datasets and indicators, and issue reports to the EEA and EIONET. There are currently seven ETCs working with EEA and EIONET: Biodiversity and Ecosystems (ETC BE), Circular Economy and Resource Use (ETC CE), Climate Change Adaptation and LULUCF (ETC CA), Climate Change Mitigation (ETC CM), Data Integration and Digitalisation (ETC DI), Human Health and the Environment (ETC HE), and Sustainability Transitions (ETC ST) (EEA, 2023). The themes of these ETCs are highly influenced by the EEA's strategy and with the current EEA-EIONET Strategy the EEA also sought to innovate their topic centres. For instance, the ETC ST has only been in place since January 2022 and focuses on crosscutting issues rather than on single environmental policy issues (Interview, 27 July 2023).

As extended desks of the EEA, the ETCs follow a work plan which is strongly in line with the EEA's work programme. Yet, the creation of the ETCs AWPs is a rather collaborative process between the EEA and the consortia. More precisely, the EEA defines the priority areas for each year, whereafter a planning meeting follows between the EEA and each ETC in order to discuss the topics and deliberate on possible activities, deliverables and products to be done by the ETCs in the upcoming year. The draft plan is developed by the EEA with inputs coming from the consortia, whereafter the ETCs further comment on the draft, which, in the end, requires formal approval by the EEA MB. Since the ETCs are mainly set up to support the implementation of the EEA's programme, not all its activities are directly related to the EIONET (Interview, 27 July 2023; Interview, 2 August 2023).

Hence, the coordinating organisation within an ETC is in frequent contact with EEA staff (Interview, 2 August 2023), particularly with their assigned focal point as well as the technical group in charge of a certain topic, for instance, the ETC CA collaborates with the EEA's group on climate change. Concerning the EIONET, it is merely the ETC managers within the coordinating organisation of an ETC to interact with other parts of the EIONET. Most importantly, ETC managers participate in meetings together with NFPs three times a year, where they discuss topics related to the ETCs' core work. However, the interaction between ETCs and especially NFPs depends largely on the

participating organisations, meaning that in some cases, particularly when NFPs and the ETC managers work within the same institution, they tend to interact on a weekly or even daily basis. Regarding other parts of the EIONET, ETCs also engage in exchanges with EIONET Groups on their respective topic of expertise, particularly in the NFP Working Groups (see above). ETCs thereby participate in meetings of EGs and contribute to their work regarding the production of reports and assessments or updating indicators. These collaborations, might, in a later stage, impact the EEA-NFP consultations on the draft documents of the work plans drafted by the EEA. The ETCs play, therefore in a certain way, a supporting role to the EIONET Groups. This is important to highlight since the ETCs and the EGs are the main knowledge-generating parts of the EIONET and since the ETCs are EEA-contracted and funded consortia their activities exceed the ones from the EGs, which are rather national-level expert networks dependent on country contributions (Interview, 2 August 2023).

EIONET Modernisation: towards horizontal governance?

The EIONET was, around three decades ago, mainly created to ensure effective data delivery from a national level to a European level – a process which became more and more routinised but also automated over time. Hence, to remain relevant, the network set its focus more on knowledge development and co-creation, moving from a data-oriented to a knowledge-oriented network. This shift sparked a reflection on the set-up and structure of the EIONET, questioning how the network can adapt to act effectively as a knowledge network. Hence, this renovation has entailed a shift of priorities, reflected in the EEA-EIONET Strategy 2021-2030, which orients itself on five strategic objectives, containing evidence-based policy implementation support, the provision of timely input of solutions to sustainability challenges, the establishment of stronger partnerships, the support of the use of digital technologies, as well as restructuring resources and building capacities. The objectives are supported by various areas of work, such as biodiversity, climate change, health, circular economy, and sustainability trends (EEA, 2021a). Put shortly, the current strategy with a shift in priorities aims at enhancing capacities to support sustainable solutions.

On the other hand, in light of its updated priorities, new governance dynamics and working methods shall support the functioning of the EIONET, which is a rather continuous process throughout the strategy period. The most significant change concerns

the EIONET Groups, which were previously called National Reference Centres (NRCs) and divided into 24 groups focusing on single issues, such as water quality, air quality, waste, or energy. According to the EEA-EIONET evaluation, this structure was a "siloorganisation", challenging cross-sectoral integration (European Commission, 2018). With the EIONET modernisation, these NRCs were blended into 13 EIONET Groups taking a more holistic approach to the subjects and at the same time reflecting the priorities of the EEA-EIONET Strategy. In other words, instead of focusing on single topics, such as air quality, the respective EG looks at the health effects of air quality in relation to traffic, for instance. Similarly, while one NRC was mainly focusing on waste management, the EIONET Group on circular economy seeks to take a more integrated approach by considering aspects such as consumption in relation to waste. Besides, additional changes also influenced the functioning of the EIONET. This entails the creation of the position of National Data Flow Coordinators (see above) as well as a different approach to the communication between the EEA and the member countries. The latter specifically refers to the collaboration between the EEA Management Board and the NFPs, particularly because decisions taken by the Management Board affect the NFPs in terms of resources. Interestingly, interview data revealed that with the renovation of the EIONET, a more horizontal approach with the NFPs has been targeted by the EEA: "[E]ven though ... what happens at the national level is not so much of our business, we are a European institution and of course, it affects the way we work with them [NFPs]. So, we try to help them and to work with them also on a national level" (Interview, 30 August 2023a).

This reflects the new approach to working within the EIONET, based on the principle of co-creation. In its essence, it aims at establishing a collaborative environment between EEA and countries on equal footing, with both having a shared role and responsibility in designing, implementing, and promoting co-creation projects, whereby the EEA merely provides policy guidance and a strategic direction instead of commanding what needs to be done. As an interview partner from the EEA stated: "If you ask me ... there's a tendency to dictate a lot from the European level towards the national administrations, while I think we could benefit all from a more equal way of working together where we all have equal inputs" (Interview, 30 August 2023a). This approach has been highly welcomed by the countries: "Before, we were looking at the EEA as a demand-driven

organisation, just asking us to do report data or check it. But now, we also have to put an effort to make sure that the knowledge is developed that we need. So, it's not just what the Commission needs, it's what the countries need" (Interview, 15 August 2023). Nevertheless, challenges come with this adaptation. First, on the side of the EEA, the agency faces coordination challenges attributed to resource allocation. Specifically, resource differences at the national level seem to determine active participation in cocreation activities, as some smaller member countries' NFPs as well as experts from the EIONET Groups only dedicate partly their time to work with the EEA and EIONET. Second, EIONET Groups still seem to be in the adaptation process of their restructuration, meaning that due to the pandemic, many EGs have still not been able to meet and interact face-to-face, which is perceived as an issue when it comes to smooth and efficient collaboration. Moreover, the way in which EGs were restructured, particularly the thematic composition of the groups, might not be fit for purpose in every case, in the sense that further adjustments concerning the EGs may be required. Third, NFPs, in particular, consider that co-creation could be enhanced stronger, as for instance, they still only comment on work programming documents, instead of co-creating them (see above for details). This indicates that a horizontal collaboration culture is still not internalised in the EIONET working methods and day-to-day governance approach. The EIONET governance structure is illustrated in Figure 3.2.

Functions

The document analysis and interviews conducted for this thesis found that the EIONET has four main functions:

- a) Facilitate institutional cooperation across governance levels and countries. The EIONET brings together around 2000 experts from over 400 institutions and organisations across Europe, acting on a European, national and sometimes regional level. This, together with an almost comprehensive participation of European countries, seeks to contribute to knowledge exchange and generation on environmental issues throughout the continent.
- b) **Support policy implementation**. With the EEA being a European agency, its work programme is strongly oriented to current EU-level strategies and policies. This way, the EIONET contributes actively to EU policy implementation by producing evidence-based information and accelerating the development of

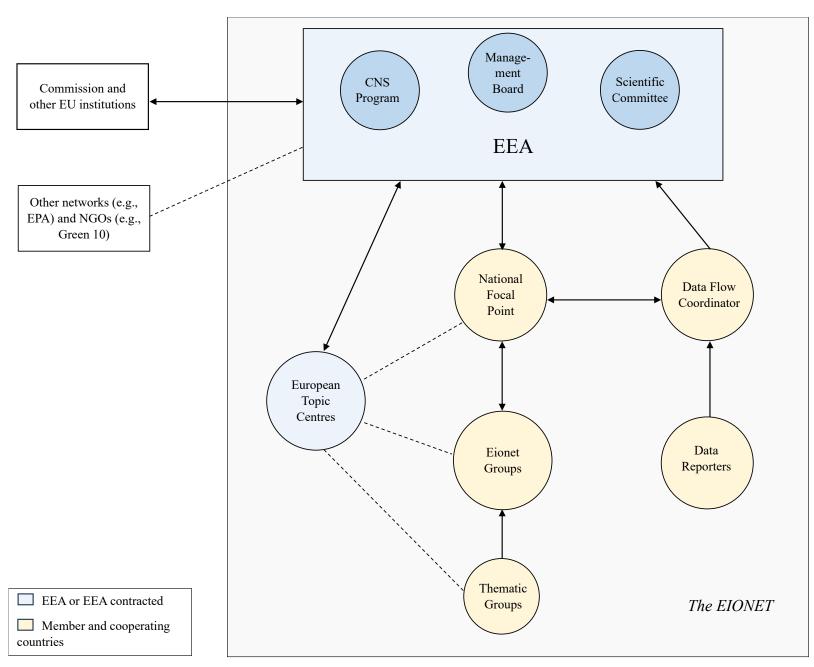


Figure 3.2 Governance structure of the EIONET. Source: Author's own illustration.

- potential solutions towards sustainability. This function is also critical for using data to inform and influence policy decisions.
- c) Create common content (data, information, indicators, analyses). Crucially, as the EIONET was born as a data-driven network, it harmonises and standardises environmental content, including data, information, indicators, and analyses. Hence, the EIONET establishes common definitions and formats for collecting and reporting environmental data, which ensures that all member institutions and organisations are on the same page regarding what data to collect, how to collect it and how to report it. This common content is essential to achieve data consistency, which is crucial for producing accurate and reliable environmental assessments on a European level.
- d) Provide shared infrastructure, standards, and tools. To process the data and information gathered, the EIONET provides the operational and technological framework which supports data collection, management, and sharing. This refers to the platforms, systems and databases EIONET members use, such as the Reportnet, the EIONET's infrastructure for supporting and improving data and information flows. The system is designed to be collaborative and accessible to all members of the network and holds, additionally, some of the DG Environment's reporting tasks, making it an important tool to streamline reporting processes as well as data management.

Hence, what is noteworthy about this finding is that the EIONET's functions divide into two main strands; one that is rather data and information-system-based and the other rather being knowledge-based. More precisely, the latter has been particularly strengthened over the last years, especially since the implementation of the EIONET modernisation in 2021. Facilitating cooperation across various levels of governance and supporting (EU) policy implementation have gained importance to remain a relevant, knowledge-generating network. Although data collection and reporting have largely become automated processes, creating common content and using the same technological infrastructure and tools is not only important to meet the EEA's reporting obligations from the side of the countries. It simultaneously creates added value for the member countries as the assessments and reports produced by the EEA become valuable and

relevant information for the countries themselves. However, this added value is, in practice, more complicated to achieve:

"One of the challenges is to really have the countries use all the information, all the knowledge, all the assessments that are produced at the European level and to make them, instead of all the countries doing the same, use more of the works done at the European level at the national level. We [the countries] need to get more involved and make sure that our prioritised issues are assessed. I think that's the challenge at the national level and also to get the reports, the indicators, used in the countries ... Because there is a lot of good knowledge that's coming from EEA that people don't know about, and the challenge is that we need them ... to dig further and to use the information there instead of just all countries making their own." (Interview, 15 August 2023)

This shows how important the effective realisation of the cooperation function is, but also how interconnected the functions are. This observation demonstrates the salient role of communicating roles such as the one of the NFPs. The latter have, as the analysis above shows, a central position in the contribution to achieving effective and efficient communication from a national to a European level and vice versa. This responsibility is a determining factor in both how data and information are delivered as well as how knowledge is used on a national level. This result should by no means indicate that the entire network's effectiveness stands and falls with NFPs. What it does imply, however, is that cross-level and institutional collaboration and cooperation are strongly tied to effective communication tools, which are essential throughout all parts of EIONET. This has also been recognised by the EEA so that for the coming year 2024 the agency will organise a one-week event where all parts of the EIONET, including NFPs, the EEA MB, the Scientific Committee, and ETCs, come together in the EEA's office in Copenhagen with the goal to enhance exchange among EIONET members.

An influencing factor in this behaviour is the Covid-19 pandemic. Since the outbreak of the pandemic was when the reconstruction process of EIONET started, its implementation has faced a significant setback. This particularly refers to the restructured EIONET Groups, as already anticipated above: "We are working with groups that haven't met in person yet and I hear from many team leads that it's a huge issue for them and for their group members because ... it's not a coherent group, simply because people don't meet in person" (Interview, 30 August 2023a). According to interview participants, there

is a significant difference between activities held online and in-person, affecting the interaction in workshops, capacity building activities, trainings etc. Additionally, budgets for EIONET activities have decreased over time, affecting working methods, including in-person meetings, thus setting a limit to, often more effective, communication and interaction methods.

Another aspect worth noting in the context of cooperation within EIONET is the interactions among member countries, specifically among NFPs. As the analysis above has shown, the relations and collaborations between NFPs vary strongly depending on the people involved as well as the countries. The latter is particularly interesting as the countries reveal influencing factors to the NFPs' and thus the network's behaviour. Hence, the member countries' influencing factors are twofold. On the one hand, the institutional set-up for the national EIONET network differs from country to country. This affects, as we have seen above, the consistency of NFPs working within EIONET as in countries where NFPs are employed by ministries, the responsible personnel tend to change more frequently, while in other countries where NFPs are contracted by, for instance, an agency NFPs are more consistent, which appears to be an important aspect for effective collaboration between countries but also towards the EEA. On the other hand, resources have resulted in being equally or even more important on a national level than on the EEA level. In fact, countries facing greater budget restrictions may show a lower level of involvement and active participation within the EIONET than other countries. For instance, an appointed NFP having only very limited time to dedicate to the network is logically less committed to additional EIONET activities, such as working groups (see above for details). Similarly, appointed EIONET Group experts easily do not prioritise EIONET-related tasks, as it represents an extra effort beyond their regular responsibilities. At the EEA level, resource shortages express themselves in the neglect of strategic areas due to staff shortages, as it happened for instance in the period between 2013 and 2016 in urban, land use and soil (European Commission, 2018).

The countries' commitment to the EIONET also tends to differ, and this deserves a separate investigation, depending on whether they form part of the EU or not. Surprisingly, interview data has shown that countries not forming part of the Union tend to be more active and engaged in the EIONET:

"They [non-EU countries] have a different motivation ... When you are an EU country, you are by default member of the EEA. When you are a non-EU country, you actively wanted to become a part of the EEA and I can see that when it comes to the engagement of those countries ... So, the countries need to understand what is in it for them to be an EIONET member ... Turkey is a good example. Turkey pays more than three million Euros every year to be an EEA member. That means that there's obviously some added value for them. It also means that they have some demands towards the EEA. So, I think the EIONET should make sure that it's relevant and that's why it needs to develop all the time and it needs to adapt to the policy agenda" (Interview, 30 August 2023a).

Speaking about policy agenda, it leads directly to the last influencing factor to the EIONET's behaviour. As will be illustrated also in the last chapter of this thesis, the EU's policy agenda has a substantial influence on EIONET activities. Yet, as already the analysis so far has shown, are momentary political priorities and objectives on the EU level a main driver for the EEA's work programme and thus the EIONET's. Interviewees have commonly highlighted the impact of the European Commission and its priorities on their work within the EIONET. Hence, a changing Commission always influences the work programme and strategy for the EIONET, which can be traced back to the EEA's central steering role within the network. The influencing factors to the EIONET's behaviour are summarised in Table 3.1.

Table 3.1 Factors influencing the EIONET's behaviour.

Internal factors	Resources (on both EEA and member country level)
	Institutional set-up for the national EIONET networks
	Commitment at national level (coming from the need for network competencies – i.e., perceived added value of the EIONET)
	Steering by the EEA
External factors	Priorities and objectives on EU level
	International developments and influences (e.g., Covid-19)

Source: Author's own findings.

3.2. Transnational governance networks: a comparative analysis

The in-depth analysis provided in the foregoing section has established a solid foundation for the understanding of the governance dynamics for the two networks under scrutiny. Both governance networks are operating transnationally, governing a variety of institutions that interact with each other primarily for the exchange of knowledge. More precisely, the defining characteristics align with Torfing and Sørensen's (2014) definition of governance networks, being a somewhat stable horizontal arrangement involving interconnected, yet functionally independent entities from either the public or private sector; these entities engage in ongoing negotiations with each other; all of this occurs within a somewhat institutionalised framework encompassing regulatory, normative, cognitive, and imaginative aspects; this setup enables self-governance while coexisting with some degree of authority, acting in the shadow of hierarchy; and contributes to the creation of public objectives in a broad sense, including public values, visions, plans, standards, regulations, and concrete decisions.

Moreover, both the EEAC Network and the EIONET aim for increased cooperation to tackle environmental and sustainability issues in Europe by providing guidance to facilitate well-informed policy choices. The latter is addressed by the EEAC Network by gathering advisory bodies to governments and parliaments to enrich their policy advice and thereby support well-informed decision-making. EIONET seeks to provide highquality data, information, and environmental assessments to policymakers on a European and national level. This aim is by both networks supported through collaboration and information sharing. While the EEAC Network focuses rather on including a wide range of actors such as academia, civil society, as well as private and public sector actors to establish a platform to share perspectives, expertise, and advice on sustainability matters, the EIONET concentrates on knowledge and information generation across various levels through the cooperation of national institutions from multiple countries and centres of thematic expertise coordinated by a supranational institution. This aligns with the network's function to establish a cooperative framework across various levels of governance. The EEAC Network acts thereby as a liaison between the national and European policy level, informing members about developments on a supranational level. The EIONET puts its focus on coordinating activities with national networks to enhance this cooperative approach. Lastly, both networks promote holistic approaches to address

environmental and sustainability issues. In the case of the EEAC Network, this is mainly addressed by the inclusion of perspectives and experiences coming from different kinds of stakeholders, but also by establishing working groups under rather broad themes addressing a variety of topics. For EIONET, this holistic approach has been particularly pushed since its recent modernisation process and collaboration within wider thematic groups. In sum, both the EEAC Network and EIONET aim at fostering collaboration, providing reliable and variative information and advice to support informed policy decisions at various levels of governance, and promoting holistic approaches to address environmental and sustainability challenges in Europe. Hence, they share a set of objectives related to the advancement of sustainability and environmental management, though their focuses and mechanisms differ.

Indeed, the analysis provided in Chapter 3.1. has revealed that, despite the similarities regarding certain objectives and functions, the EIONET and the EEAC Network show significant differences concerning their governance mechanisms, composition, structure and decision-making processes. These differences already took their start with their establishment, as the EIONET was founded, together with the EEA, by Council Regulation (EEC) No 1210/90. The EEA is, as a European agency, responsible for the network's set-up and coordination and assumes therefore the central coordinating role representing EIONET's lead organisation. Nonetheless, the EEA's coordinating role should not be overestimated within the network, meaning that in a number of areas, the involvement of the EEA to foster knowledge exchange and best practices among national experts in the countries as well as the EEA's coordination of some activities between countries, are not considered to be crucial (European Commission, 2018), so that the EEA may also act as a mere facilitator when deemed necessary. Contrarily, the EEAC Network was an initiative by its Member Councils themselves, representing a classical bottom-up establishment approach. Nowadays, the EEAC is a network administrative organisation, an NAO, governed network, namely by the EEAC foundation (i.e., its coordinator and the Board), which takes over a coordination and organisational function, acting somewhat as a 'network broker'. However, the network was initially established as a participantgoverned network without a central steering role. Yet, with increasing institutionalisation and number of participants a central level of coordination and steering seems to be necessary to maintain an effectively functioning network, as Schout and Jordan (2005) have also argued (see Chapter 1.2.). Hence, both networks show a central coordination approach while differing in terms of governance and hierarchical structure.

The latter is particularly visible in their power distribution. Power in the EEAC Network is equally distributed among its Member Councils as the NAO only has the role of coordinating them. However, it is noteworthy that the network's Board plays a central role when it comes to decision-making as it brings forth the members' interests in key decisions, such as activities and annual work plans. Hence, instead of presuming a central leadership role with increased power, the EEAC Board takes over, together with its coordinator, a steering role advancing the network's interests and priorities. Consequently, leadership in the EEAC Network is rather weak. Conversely, power in the EIONET is rather concentrated in its lead organisation, the EEA. This is most visible in decisions regarding work programmes, which align with the EEA's own agenda and strategy. This results in uneven power distribution within the network with the EEA having stronger decision-making influence. Nonetheless, its leadership role is rather of a medium degree than strong, which can especially be attributed to the recent EIONET modernisation, aiming to establish a more horizontal governance approach. Indeed, although member countries within EIONET have reporting obligations when it comes to environmental data delivery, EEA has no power to 'police' its members. Moreover, as a cooperative knowledge network, takes EIONET in several aspects a collaborative working approach, instead of the EEA dictating from top to bottom. Co-creation projects and the inclusion of the national networks in earlier stages of work programme drafting are expressions of a shift towards more horizontal methods of governance (see Chapter 3.1.2. for details). These results also align with Levi-Faur's (2011) finding that the EEA, rather than creating, employing, and controlling the network and thus establishing an "agencified network", is a "networked agency", empowered by its relations and involvement to and with networks, including the EIONET. This is expressed in the above illustrated limited value of the EEA to be involved in the coordination of certain activities within and between countries (European Commission, 2018), so that the network benefits from actions initiated from below.

Apart from these diverse characteristics, the two networks perform distinct kinds of functions, yet show parallels along with the similarities in their objectives as discussed above. As already touched upon, both networks emphasise the importance of cooperation

and collaboration, bringing together different entities on various levels of governance to work towards common goals. Moreover, both networks recognise the significance of knowledge exchange and information sharing, promoting the dissemination of information, best practices, and expertise. Both the EEAC Network and the EIONET provide an operational framework to establish such cooperation. Yet, in addition to enhance policy advice, the EIONET also supports policy implementation by orienting itself on the current policy landscape of the EU and generating the necessary information and tools. Undoubtedly is the EIONET a more sophisticated network bringing together a high number of entities and experts. This is demonstrated, as illustrated in the foregoing section, by a more structured, coordinated and complex architecture and interaction model of its parts. This aligns with Schout and Jordan's (2005) argument, that the more tasks, actors and issues to address in a network, the higher the need for a high-level, more coordinated type of network. Hence, the EEAC Network's functions are by default – due to the nature of its governance architecture – limited to rather informal activities enhancing collaboration and exchange. This aligns with the view of one interview partner: "I don't expect any explosion in the activities of the EEAC Network ... There is a clear limit to expand the operational level of the network, but in this level of activities, there is no chance that in the next years that the EEAC Network will dissolve or ending the operation. So, in this way this network is in a very good condition" (Interview, 8 September 2023). The insights from these paragraphs are summarised in Table 3.3.

Studying governance structures, dynamics, and mechanisms not only contributes to the understanding of the functioning of governance networks but also reveals how these networks behave. The present Chapter III has particularly sought to respond to three of the four research questions, concerning the networks' characteristics and governance structures, functions as well as their behaviour. The latter refers to specific factors influencing their behaviour and, despite significant differences between governance structures, the EIONET and the EEAC Network share certain factors in this regard. These are particularly pertinent insights for studying network governance since they apply to other networks too, a relevant aspect for future research. A comparison between the two networks therefore uncovers determinants that affect how they operate, make decisions, or function. First, and unsurprisingly, one such factor is resources. As interviews have commonly shown, the number of activities as well as their nature strongly depend on the

resources available, on both a national and European level. For the EEAC Network, resources are a determining factor in how much member councils can engage in the network and its activities. Similarly, resources for the national EIONET networks vary strongly from country to country meaning that members, such as the NFPs or appointed national experts, only invest partly their time to contribute to the EIONET in case they receive fewer resources. Additionally, in the case of EIONET, resources on a network level – and thus EEA level – impact its working methods, coming down to the frequency of in-person meetings. Nonetheless, in both cases, resources on a member state level have a greater impact on the networks' behaviour.

Table 3.3 EIONET and EEAC Network governance models with coordination capacities, characteristics, and functions.

	EIONET	EEAC Network
Network type	Lead Organisation-Governed	Network Governance by NAO
Description	A single participating member assumes a central coordinating role: the EEA	A dedicated, external administrative entity oversees network functions (network broker): EEAC foundation (coordinator and board)
Establishment model	Top-down	Bottom-up
Coordination Approach	Centralised	Centralised
Type of organisation	Enduring	Enduring
Power distribution	Power is concentrated in the lead organisation, resulting in uneven distribution.	Governance and coordination are handled by the NAO, but members have equal power.
Leadership	Medium	Weak
Functions	 Facilitate institutional cooperation across levels and countries Support policy implementation Create common content (data, information, indicators, analyses); Provide shared infrastructure, standards, and tools. 	 Serve as a knowledge exchange platform; Provide an operational framework for inter-council cooperation; Create a liaison between the (sub-)national and the European policy level.

Source: Author's own findings based on the analysis in Chapter 3.1.; adapted theoretical framework according to Schout and Jordan (2006; 2005) and Provan and Kenis (2007).

Second, and again related to domestic conditions, is the institutional set-up for the members on a national level a key driver of how they can contribute to the networks' operations and functions. For both networks, this refers to the matter of whether the national experts and members part of the respective network are linked to their government or not. In the case of EIONET, this applies especially to the NFPs, who have a time-consuming role and great responsibility for the efficient functioning of the network. As illustrated in the foregoing analysis, assume NFPs employed by national environmental agencies a more stable position than the ones contracted by the government. This is because government-related NFPs may change once the government changes too. In the eyes of NFPs, this is a rather problematic situation as the role of an NFP requires large insider knowledge and experience to deliver effectively the roles and responsibilities of an NFP, as "it takes three years to learn the role as NFP and after that you can start being effective in that sense" (Interview, 15 August 2023). Similarly, member councils of the EEAC Network set up by their national parliament instead of their government appear to be an indicator of increased stability, particularly from a financial perspective. However, most advisory councils in the network are part of their government, which explains the significant decrease in members during the financial crisis. Moreover, a ministerial setting might entail less operational independence, a factor particularly relevant for some Eastern European councils, as interviews have revealed. Another aspect to be considered within the institutional set-up is the country-specific administrative burdens which may come with activities related to the networks. For both networks, those can represent obstacles in the realisation of certain tasks. For instance, as a northern European interview partner from the EIONET stated: "[W]e don't need the legislation behind us if we think it's a more effective way then we'll do it ... But other countries like Greece normally need to have a legislation, otherwise they don't get the resources" (Interview, 15 August 2023). This aligns with observations from the EEAC Network: "Things can seem quite slow and a bit bureaucratic ... I think the secretaries of councils feel hindered just by the administrative kind of duties that they have before they can actually give their full commitment" (Interview, 30 August 2023b). Hence, national institutional cultures and settings strongly influence the way actors participate on a network level and therefore affect the overall behaviour of the networks.

Third, the individual motivation and engagement of members on (sub-)national level to network activities can be crucial, independent of national conditions outlined above. Engagement and motivation deal in this sense with members' interest in contributing to the network activities. In other words, how much members invest in their network depends on the added value they obtain from their participation in specific activities or projects. Voluntary engagement is in this sense an interesting aspect to consider since this research has found that voluntary commitment in the networks relates to an increased engagement of network members. In the case of the EIONET, this is visible, as already demonstrated previously, with a tendency to enhance participation from part of non-EU countries within the EEA and thus within EIONET. This result is also supported by the EEA-EIONET evaluation, finding that non-EU member and cooperating countries see an added value in the network's ability to pool resources and provide cost-effective datagathering schemes, indicating enhanced efficiency to the individual countries (European Commission, 2018). As participation in the EEAC Network is of a voluntary nature, members are logically active in the network as the added value for them is likely to be more directly visible. The challenge thereby is, however, to translate the various interests of all parties into concrete projects from which all see an added value.

Fourth, steering by the coordinating organisation particularly determines the number and type of activities pursued by the network as well as decisions taken. This factor thus applies to centrally steered networks, independently of whether their leadership is weak, medium or strong, as identified in Table 3.3. Although the EEA seeks for its activities related to EIONET a stronger horizontal, cooperative approach, the agency has undoubtedly the strongest say in the network's agenda. Regarding the EEAC Network, on the other hand, the activities conducted are strongly in line with the priorities and interests of its member councils. Nonetheless, the board is responsible for bringing these matters forward by drawing the agenda and work plans accordingly, whereby the coordinator takes over a supporting role in the implementation of these decisions. Hence, in both cases, the central coordinating organisation takes over a guiding role in terms of agenda and activities carried out by the networks with weak to medium leadership and a salient organising function.

Fifth, priorities, objectives and strategies on the EU level have proven to be a key driver in influencing governance networks' agendas. Logically, as a European agency is the EEA's work programme built around the EU's policy agenda which therefore impacts EIONET's agenda substantially, whereby the Commission's priorities are central: "DG Environment specifically, but also DG CLIMA are two of our [the EEA's] main stakeholders. So, of course, we have to listen to their needs ... We also need to understand it is now getting wider than just DG CLIMA and DG Environment because with the Green Deal, I think environment has spread out – or should have been spread out – over all the DGs in the European Commission, so we're trying to diversify there" (Interview, 30 August 2023a). Hence, despite being an independent EU agency, the EEA perceives it as important to act according to the EU's policy developments in order to maintain a relevant EIONET on a European level. This is also perceptible at a national level since these developments determine to a certain extent the involvement of national network members in the EEA work. The EEAC Network, on the other hand, is formally less tied to the EU policy agenda, yet a certain degree of orientation to it is observable. This is particularly due to the network's function to act as a liaison between European and national policy levels. The network plays thereby an important supporting role in keeping its advisory councils up to date about EU policy developments, especially since these advisory bodies often lack the capacities or resources to dedicate themselves to both national and European matters. Furthermore, when dedicating itself to a specific topic, a point of departure often represents ongoing discussions on the European level. As one interview partner from the EEAC Network has put it:

"Councils come to the network to talk about European policies and one of the added values is to provide information on what's happening at EU level and kind of arising from that will be activities. Especially in the ecosystem services group, we talk a lot about EU soil policy, EU water policy, cooperation between countries because [e.g.,] the water scarcity... it's problems that are that will be similar for a lot of countries ... There's a lot that gets determined over the EU agenda, and I think that the national councils sometimes are also a bit overwhelmed because they are tasked to follow national discourses and it's good to have a sort of haven for accumulating what's happening at EU level." (Interview, 30 August 2023b)

In sum, EU policies and priorities are for both networks of central importance to their actions, activities and functions, hence being a determining factor to their behaviour.

Sixth, global developments have shown to be influencing in terms of networks' working methods and, to some extent, activities. Concerning the latter, conventions and agreements such as the UN Agenda 2030 may have an impact on the focus of certain activities which apply to both networks more or less equally. For example, as already demonstrated in Chapter 3.1.1., within the WG on sustainable development of the EEAC Network the councils seek to collaborate and improve the UN's VNRs on the 2030 Agenda. As the latter is currently probably the most relevant international programme concerning sustainable development, it is no surprise that it finds attention on all levels of governance, from European to national and sub-national levels. Logically, networks "have to adapt depending on what's the issues in the EU or in global conventions" (Interview, 15 August 2023). Apart from international programmes and conventions tackling environmental issues, any other kind of happenings that influence the way we live and work have also affected the networks' behaviour. These developments particularly affect the networks' working methods and interactions among their members. Crucially, during the pandemic, both networks found themselves in the situation of working only virtually with each other, which was perceived as challenging from all parts, yet for the EIONET perhaps even more so due to a more sophisticated interaction model and diverse structural part. Worth mentioning is thereby the restructuring process of the EIONET which occurred during the pandemic and challenged to a great level a successful modernisation, particularly concerning the new EIONET Groups. In short, these global developments have significantly shaped the dynamics and adaptability of networks in the face of unprecedented challenges. The findings presented in these paragraphs regarding the influencing factors on networks' behaviour are summarised in Table 3.4.

Table 3.4 Factors influencing transnational governance networks' behaviour.

Internal factors	Resources (on both European and member country level)	
	Institutional set-up of the national network members	
	Engagement and motivation of network members on (sub-)national level (perceived added value for participants) Steering by coordinating organisation	
External factors	Priorities, objectives, and strategies on EU level	
	International developments (Covid-19, global conventions etc.)	

Source: Author's own findings.

Chapter IV The role of networks in promoting EU sustainable development policies

4.1. EU policies and objectives addressed by the EEAC Network and the EIONET

Both the EEAC Network and the EIONET address a set of EU policies, the former in its function to serve as a liaison between the European and national policy level and the latter in its function to support policy implementation, while both aim to enhance decision-making at both levels of governance. This chapter seeks to answer the research question of how the two networks promote EU environmental policy objectives related to sustainable development. To do so, in the following paragraphs, I will outline the most important EU policies both networks address, followed by studying each network individually concerning their contributions and assessing their effectiveness.

To begin with, overarching policy frameworks are important guiding structures which include general objectives to be pursued in the long term as well as more specific sector-related policies. The currently most evident one is the European Green Deal (EGD), a package of policy initiatives aiming to enable Europe's green transition to be the first climate-neutral continent by 2050. Launched in December 2019 by the European Commission, the EGD has since then adopted a wide range of regulations and directives in various policy areas, including climate, environment and biodiversity, circular economy, transportation and mobility, industry, energy, and agriculture. The Green Deal therefore aims to adopt a holistic, cross-sectoral approach to meet its long-term goals effectively, namely, to reduce net emissions of greenhouse gases by 2050 to zero, to ensure economic growth decoupled from resource use, and to leave no person and no place behind. These goals resemble the logic of sustainable development by including the ecological, economic, and social spheres. The EGD is the thus far most ambitious and most integrated approach to addressing environmental crises and achieving sustainability in the European Union (Council of the EU & European Council, 2023b; The European Green Deal, 2019).

As anticipated, the Green Deal is broken down into various initiatives addressing distinct sectors. In this regard, the Fit for 55 Package translates the EU's climate ambitions (i.e., 55% of emissions reduction until 2030 compared to 1990 levels) into concrete laws, particularly by revising and updating climate-, energy- and transport-related legislation. This applies to, for example, the 2005 adopted Emissions Trading

System by expanding it to additional sectors such as maritime transport and aviation, as well as buildings, road transport and fuels, but also by going beyond EU borders with the Carbon Border Adjustment Mechanism. Moreover, the Fit for 55 Package tackles the energy sector with the adoption of renewable and efficient energy directives, the fuel sector, as well as land use, forestry and agriculture with the LULUCF Regulation, setting binding emission reduction targets for EU member states. Additionally, the Social Climate Fund aims to provide support measures to households, micro-enterprises and transport users. The overall goals of the package to cut at least 55% of net emissions by 2030 and to reach climate neutrality by 2050 are further anchored in the European Climate Law, making them a legal obligation and demanding progress monitoring with measures to keep track and adjust measures accordingly. To adapt in the best way to this transition, the EGD also contains a strategy on adaptation to climate change in order to build a climate-resilient society, including measures to create nature-based solutions to protect ecosystems, adaptation of macro-fiscal policies, and improvements concerning data sharing to improve knowledge about climate change (Council of the EU & European Council, 2023c; European Commission, 2023c).

Other policies and strategies included in the Green Deal and relevant to the understanding of the subsequent sub-chapters are, first, the Biodiversity Strategy to recover Europe's biodiversity by 2030, which includes actions related to extending protected areas throughout Europe, reducing the use of harmful pesticides so to restore degraded ecosystems, enhancing monitoring efforts of progress by increasing funding. The strategy also contains the Nature Restoration Law, which is currently discussed in the trilogues and is pending its implementation. In a nutshell, the law will require member states to develop national restoration plans, which include measures and timelines to meet the targets in the law, affecting land and sea habitats, pollinators, agricultural ecosystems, urban areas, rivers and floodplains, as well as forests (Council of the EU & European Council, 2023a).

Moreover, the Farm to Fork Strategy aims to shift the current food system toward sustainability by ensuring sufficient, affordable and nutritious food within planetary boundaries, supporting sustainable food production, and promoting more sustainable food consumption and healthy diets. In line with this strategy, but also the Biodiversity Strategy, is the new Common Agricultural Policy, which entered into force in January

2023. The CAP has been central to the EU's policy landscape since the Union's early days, once having received the largest share of the EU budget. In light of the EGD, the reformed CAP seeks to strengthen greener ambitions, support farmers more fairly through redistribution and income support and other measures, and increase the competitiveness of the agri-food sector (European Commission, 2023e).

The Circular Economy Action Plan (CEAP) also existed prior to the EGD since 2015 but has been under revision in the context of the new targets, now being one of the main building blocks of the Green Deal. The new CEAP includes actions in various sectors, including electronics and ICT, textiles, chemicals, plastics, food and packaging, as well as waste. For the sake of completeness regarding the parts of the Green Deal policy framework, it further includes strategies related to the industrial sector, chemicals, forests and deforestation, and a just transition. The latter provides financial and technical support to the regions most affected by the transition to a low-carbon economy (Council of the EU & European Council, 2023b).

Building on the EGD, the 8th EAP entered into force in May 2022 and serves as a broad guidance for the EU environmental policy until 2030. Hence, the programme's six priority objectives go mainly along the ones of the Green Deal, while its enabling factors include a range of measures, such as boosting sustainable finance, realising the full implementation of existing legislation, incentivising sustainable alternatives to harmful subsidies, improving monitoring and evaluation tools, and indicators for nature-based solutions, and making use of environmental taxation (Decision (EU) 2022/591, 2022).

Beyond the EU's own policy frameworks and initiatives, is the EU a supporter of the UN Agenda 2030 and the achievement of the Sustainable Development Goals (SDGs), by seeking to integrate the goals into its policies and programmes, above all in and through the EGD. To do so, the EU reports on the SDGs via the UN-level voluntary reviews on SDG implementation and monitors regularly its progress in Eurostat publications, as well as provides tools to support the evidence-based implementation of the SDGs (European Commission, 2023d).

4.2. Contributions to the achievement of policy objectives and limitations

The overview of the above outlined policy objectives, strategies and initiatives shall serve as an input to the present chapter, in order to comprehensively guide through the sections

following hereinafter. They will focus on the contributions the EEAC Network and the EIONET make to EU policy objectives in terms of their objectives pursued, actors involved, and activities performed. Moreover, network-specific limitations will be discussed which may inhibit the effective promotion of sustainable policy objectives. This leads to the deduction of aspects central to an effective promotion of policy objectives in the sustainability field.

4.2.1. The EEAC Network

Objectives

The EEAC Network's main objective in relation to the EU green policies is to align and liaise the work of its member councils with the work at the EU policy level (EEAC Network, 2023). More precisely, based on the documents consulted for this analysis (see Annex I) and interviews, the network aims to establish a dialogue about relevant topics on the European policy agenda in order to keep national and sub-national advisory councils informed, which, in turn, should foster enhanced advice for their respective governments. Additionally, the network seeks to the enhance visibility of the advisory councils' perspectives on a European level, especially by creating a discourse with EU officials as well as with other networks acting at the European policy level.

This overarching goal is accompanied by a set of sub-objectives. First, the EEAC Network aims for active participation in the alignment of EU environmental and sustainability policies with global goals, such as the UN Agenda 2030, and national policy advice. This policy alignment objective contributes to an enhanced focus on relevant issues throughout the continent and challenges a tunnelling perspective of merely national policy matters. Second, policy advocacy intends to promote policies and initiatives, mainly at the national level by the advisory councils, that foster sustainable development. Examples include advice related to carbon reduction targets, biodiversity conservation, or green finance. Yet, policy advocacy can also take place on a European level by bringing perspectives and insights from the national councils forward to EU policymakers, seeking to influence the decision-making process on the EU level. Third, policy monitoring and research should keep councils on track with policy developments but also improve learning, both what concerns policies and initiatives on the European level as well as the national level in other member countries. Along with this goes, fourth, the cross-sectoral

policy integration objective which seeks to integrate various sectors, such as climate change, energy, biodiversity, health, agriculture etc., in the network's actions, aiming for a holistic approach to sustainable development advice. Sixth, capacity building and knowledge transfer are a key objective to ensure the advisory councils' ability of informed policy advice to policymakers, supported by workshops and inter-council dialogues, for instance.

Actors

The various parts of the EEAC Network, as illustrated and analysed in detail in Chapter 3.1.1., have different roles and responsibilities in achieving the above outlined objectives. The main role play, as has come forward from the document analysis considering annual plans and a report (The Board of Foundation E.E.A.C., 2020, 2022, 2023), the EEAC Working Groups and/or specific advisory councils. This applies especially to actions based on specific environmental themes. Oftentimes, member councils address a specific topic commonly within their respective WG. For instance, the WG on ecosystem services facilitates the actions related to biodiversity on the EU policy level, sustainable food systems and agriculture in times of climate change, environmental degradation and growing social pressures, whereby the specific activities are further coordinated by the WG co-chairs or an appointed rapporteur. This approach is often used for topics requiring certain expertise in a field, such as for the theme on biodiversity at the EU policy level, which focuses on the EU's new nature restoration regulation and how it impacts national and regional policies. Rather cross-cutting issues are often tackled by the WG on sustainable development, such as the EU Presidency Exchange sessions on the 2030 Agenda at the EU level or actions regarding priorities for the newly appointed European Commission in 2024 for the achievement of the SDGs. However, on some occasions, councils outside of the responsible WGs are often invited to appoint experts or rapporteurs from other WGs with the aim of fostering the network's cross-sectoral approach.

Regarding actions related to overarching policy frameworks as well as initiatives that facilitate collaboration on a European level, the Board, the network coordinator, WG chairs or the EEAC Network as a whole are responsible for their implementation. Such an overarching policy framework is the Fit for 55 Package, requiring the support of the EEAC's secretariat as well as WG chairs and/or individual councils, whereby the WG on Climate Change and Energy is more strongly involved. Concerning cooperation on a

European level, the initiative to facilitate exchange with the European Scientific Advisory Board on Climate Change (ESABCC) is largely led by the EEAC Board and WG chairs, whereby member councils are merely invited to contribute to the process if they wish. The engagement with the ESABCC, in conjunction with the above-mentioned EU presidency exchange, signifies the involvement of EU agencies and officials in advancing the EEAC's goal of promoting EU green policies. This is further supported by the contacts individual members maintain with EU officials, which therefore represents a more informal exchange on certain issues, as interviews have revealed. Moreover, exchange is fostered with specific DGs depending on the topic at stake; for example, for issues related to agriculture and food, interchange with the DG Sante and DG Agri was sought, but also with experts from Eurostat to discuss about sustainability indicators and progress reports. In short, external actors on the EU level, including EU officials as well as experts from independent EU agencies are evidently relevant to the EEAC Network's goal in the promotion of green policies on the EU level.

Other European-level actors not related to EU institutions and outside of the network further share ties to the EEAC. The most significant relationship is with the European Sustainable Development Network (ESDN), a network of public administrators and other experts dealing with sustainable development in Europe, with which the EEAC Network has maintained interchanges for around two decades. This can be traced back to the shift of some EEAC member councils to the ESDN around 2010, therefore "two related and complementary networks have evolved, enjoying a good relationship and continuing to exchange experience and knowledge" (Baldock, 2017, p. 6). An example of this cooperation is the yearly EEAC-ESDN workshops, where members of each network exchange on sustainability topics; this year's workshop focused on the topics related to sustainability and culture as well as SDGs in policy implementation. Crucially, together with the ESDN, the EEAC Network, or rather its WG on sustainable development, established the EU Presidency Exchange to discuss, on a European level with Commission representatives, sustainability challenges.

European-level cooperation is also linked to the external representation of the network, whereby key figures of the EEAC Network take the leading role. This is the case for events such as conferences, on which the EEAC chair, vicechair, other board members or WG chairs speak on behalf of the network and/or their advisory council

(Interview, 30 August 2023b). This not only enhances the network's visibility on the European stage but also facilitates the exchange with other experts, stakeholders, associations, and NGOs, as was, for instance, the case in the European Water Association Conference held in the spring of this year.

Overall, the EEAC Network has a great variety of actors within its network, especially what concerns the member councils' composition. As identified in the analysis of the previous chapter, the EEAC Network consists of different kinds of advisory councils, namely mixed expert bodies, scientific expert councils, and multi-stakeholder bodies. The latter are particularly interesting as they bring together representatives and individuals, who therefore establish the most comprehensive stakeholder view on various issues. The Belgian Federal Council for Sustainable Development (FRDO-CFDD) is a good example as it consists of 24 members representing social partners, environmental, youth, consumers' and development NGOs, or are representatives of scientific bodies, trade unions, employers, and the business community. Moreover, representatives of federal and regional ministries also participate as observers of the council (EEAC Advisory Councils, 2019). These are relevant considerations in light of the present research question to be answered as the council advises and provides opinions to the Belgian government on sustainability policies, strongly under consideration of the current legislative landscape on the EU level, as has come forward from the document analysis delving into a recent opinion on biodiversity policy (FRDO-CFDD, 2022). This is of direct relevance to the network in fostering a more comprehensive and multi-stakeholder approach to shaping EU sustainability policies, aligning with its overarching mission.

Activities

Beyond the roles specific actors perform in relation to liaising the network and its member councils with EU green policy, are specific activities the network performs a meaningful indicator to understand how the EEAC Network contributes to the promotion of sustainable development policies. In Chapter 3.1.1., some activities have already been analysed in relation to the network's functions. The following paragraphs shift its focus on activities pursued or planned for the past four years (2020-2023, after the adoption of the European Green Deal), specifically related to the promotion of EU sustainability policies and the objectives outlined above in this section. To do so, each paragraph focuses on a certain policy area and discusses the relevant activities performed by the

network, considering the annual work plans (The Board of Foundation E.E.A.C., 2020, 2021, 2022, 2023).

Climate change and energy have been a persistent topic in the EEAC work plans, along with its consistent Working Group addressing the issue. To address this area, the network often made use of exchange tools, such as webinars, inter-council and expert meetings, and online exchange platforms. These kinds of activities particularly enhance information and knowledge exchange among councils and other external actors, which further fosters informed policy advice on the topic. Specific examples are webinars addressing complex subjects related to energy, climate change, and affordability, or also agriculture in the context of climate change and energy policies, which contributes to EU -level policies by addressing the environmental impact of agriculture and working on solutions at national and regional levels, in line with EU goals for sustainable agriculture and reduced greenhouse gas emissions. Apart from rather specific policies, the Fit for 55 Package is consistently tackled by the WG for Climate Change and Energy, particularly by the dissemination of information on policy developments but also by the exchange with the ESABCC. Moreover, the WG has organised policy briefings with external experts and hosted podcasts to disseminate insights on European climate and energy developments.

Often discussed in the context of climate change is sustainable agriculture, which has particularly gained prominence in the network's activities since the discussions for the new CAP. As the policy affects agriculture on national and sub-national levels, the WG on Ecosystem Services has organised inter-collegial exchange sessions to enhance the advisory bodies' knowledge on the implementation of the new CAP. Hence, by focusing on practical solutions, the EEAC directly contributes to EU sustainability policies.

Biodiversity on EU policy level has been continuously on the EEAC Network agenda with this year's task for the Ecosystem Services WG committed "to make an analysis of the consequences, for biodiversity policies and national and regional level, of the global Post 2020 Framework on Biodiversity, and the expected outcomes of the EU negotiations on the Regulation for nature restoration. To jointly identify elements in this proposed Regulation that we consider of particular relevance, and to express support for these elements" (Annual Plan 2023). Previously, the WG held internal workshops, expert hearings, and engaged with European institutions on biodiversity and sustainable food

systems. The latter particularly refer to the organisation of a launch and discussion event with national and EU-level policymakers following the publication of the EEAC Position Paper on sustainable food systems.

Furthermore, the network has been seeking to internalise the SDGs on a European as well as national level. For instance, in 2020, the network took part in the multi-stakeholder platform on the implementation of the SDGs in the European Union. Moreover, the WG on Sustainable Development has been particularly active in this regard, by organising policy briefings with external experts and hosting a public conference to discuss sustainable finance, corporate governance, and UN Agenda 2030 issues. Moreover, the WG has promoted inter-council exchange on topics like indicators for implementation monitoring, pathways, and strategies for implementing the 2030 Agenda. In relation to this, the WG has tended to incorporate the aspect of sustainable or green finance in relation to the implementation of especially SDGs, for instance by establishing online exchange forums and holding webinars. The newly established EU Presidency Exchange of the EEAC Network and ESDN demonstrates the effort to create a structural dialogue on a European level with EU institutions and other stakeholders.

Another consistent thematic area of interest to the councils has been water policy. Especially in 2020, various initiatives related to EU water policies, first and foremost about the implementation of the EU Water Framework Directive (WFD), were set up, for instance by providing a coherent information stream from a European policy level to a national level, or by facilitating knowledge exchange with stakeholders on water quantity governance. Inter-council exchange continued in 2021 with a particular focus on freshwater affairs. While in the past year no activity was dedicated to water policy, in the current year 2023 some attention has again been shifted to the implementation of the WFD, in the context of its deadline in 2027, yet without indicating specific activities on the matter.

Apart from these rather consistent issues addressed by the network, are other, more temporary topics present in merely one or two work plans. Surprisingly, the focus on circular economy has been a rather temporary theme of interest for the EEAC Network, contrary to the current agenda of the EU. Following the European Commission's launch of its first circular economy package in late 2015, the network created the WG on circular economy, which was active in participating in conferences and launching its own events

to enhance knowledge exchange. In 2017, the WG published a document titled 'Europe goes Circular', giving an overview of the strategies and policy initiatives adopted for implementing a circular economy in the EEAC member countries. It also outlines the role played by advisory bodies in the implementation process and offers a reflection on the progress made in realising a circular economy at the national and regional level (Baldock, 2017). However, after a few years of action, the WG dissolved. The 2020 Annual Plan still states circular economy as an area of common interest, yet does not include it in its activities, while the 2021 work programme considers it in actions of the WG on Climate Change and Energy, it has not received specific attention despite individual member councils have indicated interest in topics related to a circular economy transition. Similarly, the WG on Planetary Health is currently paused due to a lack of interest, according to interviews. The WG hosted workshops and conferences in partnership with the Planetary Health Alliance, facilitating inter-council exchange on planetary health, and connecting organisations and institutions on a European level.

Beyond topics related to activities pursued by the WGs, the network conducts a series of additional activities related to EU policies, such as informal meetings gathering the member councils (e.g., 'collegial coffee breaks'), which facilitates exchange among members about ongoing issues and activities of colleagues. Another activity on the network level is the creation and provision of policy briefings and briefing notes to the member councils in order to keep them updated about developments in EU policies. For instance, the weekly Green Deal update, prepared by one member council, is sent out to the secretariats of the EEAC Network, comprising nearly one hundred people who are kept on track with the latest developments of the policy framework.

Limitations

Despite the network's efforts to promote green policies on a European level, including a set of corresponding objectives, a wide range of actors involved and variative activities, limitations remain in effectively pushing for a sustainable policy agenda. First, and most evidently, are resources and time constraints. Being not only a central influencing factor in the network's behaviour, as illuminated in the analysis of the preceding chapter, time and resources are at the core of what agenda to pursue and which activities to focus on throughout the year. In contrast to other established networks, the EEAC Network gathers members of advisory councils who normally are occupied full-time otherwise and

participate in their council, and thus the network, rather occasionally. Hence, the number of activities to conduct over a year is already limited due to the limited time available of the EEAC Network members. Moreover, the network maintains itself entirely from the annual fees contributed by member councils. This indicates that, due to a restrained budget allocated mostly by their (sub-)national governments, councils have limited resources at their disposal to invest in the network. Hence, these resource constraints on a network level are a determinant *which* and *how* activities are carried out, leading to situations where only a few thematic areas receive priority.

Second, the empirical investigation conducted for this study has shown that individual member councils' interests and foci influence what activities are to be carried out on a network level. This can be traced back to the members' individual interests or priorities at a national level, particularly by the councils' governments. This can influence the decisions of what EU policies are considered in the network's agenda, meaning that an imbalance can evolve, manifesting itself by certain policy areas receiving unevenly greater priority than others. This can further be affected by board members and WG chairs, who are, as interviews revealed, strongly invested in the network and simultaneously the main decision-makers of the network.

Third, geographic and thematic gaps may emerge since advisory councils come from, despite a strong variety covering southern, northern, eastern and western European countries, only half of EU countries (13 plus Montenegro) are represented by their advisory councils in the EEAC Network. Hence, this may lead to coverage of thematic areas in line with those countries' areas of expertise and priorities, so that some regions or policy domains may receive less attention, limiting the network's ability to provide holistic and comprehensive advice on EU sustainability policies.

Fourth, political dynamics on national, European, and international levels can pose a limitation to the network's actions, or rather to their influence and relevance. More precisely, changing priorities due to, for example, a changed political leadership on those levels of governance can undermine the impact and value of the activities implemented by the network. Furthermore, political cycles on both European and national levels are of relevance. As interviews have shown, political parties or governments tend to prioritise issues that align with short-term goals based on electoral interest, while sustainability policies require a rather long-term approach until they achieve valuable results. Similarly,

to what extent the European Commission prioritises sustainability policies further influences how much attention the network and its member councils attribute to the support and promotion of those.

Fifth, the EEAC Network as well as its member council lack enforcement authority and have limited to no influence on whether their advice is considered by EU and government officials. The network's efforts to enhance exchange among its councils, but also with other networks, associations, and EU institutions is undoubtedly an indispensable factor in improving knowledge at all levels of governance. Nevertheless, the network's influence to adapt its suggestions on the EU and national level depends inevitably on the governments' willingness to do so. In other words, although the network can offer and improve recommendations and advice, it cannot compel action. As a result, the EEAC Network's impact on promoting EU sustainability policies is indirect and depends on the responsiveness of policymakers and politicians.

Sixth, the EEAC Network possesses relatively limited evaluation mechanisms, which makes it challenging to assess the impact of its actions on green policies. However, this aspect is disputable since many actions of the network are rather intangible to measure, as an interviewee has argued:

"For example, with the European Scientific Advisory Board [on Climate Change], in the network they believe that this was partly because of the network's efforts that such a European level advisory board was even established. So, then we could say ... we have contributed to the formation of this new advisory format at EU level, but there's no way to know how much or in what way this really influenced ... So, it goes beyond influencing EU policies directly" (Interview, 30 August 2023b).

Thus, for a rather informal and cooperation-based network such as the EEAC Network, soft evaluation approaches, such as through the development of state-of-play reports and feedback from member councils in the plenary sessions, may suffice for the scope of the network.

In sum, the EEAC Network provides an effective framework for enhanced exchange on EU green policies, contributing to a more comprehensive dialogue among its members and with EU-level actors, therefore promoting EU policy goals at various stages of the policy cycle. It aligns EU-level policies with the work of its member councils by carrying out a range of activities, such as monitoring policy development, capacity building in the

form of workshops and webinars, facilitating inter-council collaboration within working groups for enhanced policy advice. One of the EEAC Network's strongest assets is the advanced stakeholder inclusion with member councils placing actors from the public and private sectors, civil society, NGOs, and academia. This offers a wide range of perspectives in dialogues about policy developments at the EU level influencing national policies. In this regard, access to EU-level actors such as officials and policymakers is indispensable for effective communication between multiple governance levels. To maintain relations and engage in European initiatives, but also to provide the most reliable advice to national governments, flexibility to the ever-evolving policy landscape of sustainability is fundamental. This is, due to the network's independent nature, no obstacle, yet member councils' own interests and priorities might not be perfectly in line with EU-level priorities, which may lead to situations where important areas are not given enough consideration in the network – an issue that is further attributed to resource constraints of the network and its councils. This also highlights the importance of communication in the network, referring to the proper and effective communication of interests of the member councils which need to be translated into apt activities of added value to councils and at the same time consider developments at EU policy levels. A certain degree of trust towards steering roles in the context of their influence on the network agenda is therefore key to the effective functioning of the network in this task.

4.2.2. The EIONET

Objectives

The EIONET's main objective in relation to the EU's sustainability policy agenda is to collect, manage and disseminate relevant information and data "to give EU policymakers and the public the best available knowledge to reach agreed environmental and sustainability targets" (EEA, 2023). By building its strategies around European policy objectives, the EEA and the EIONET aim to support the European Union in reaching its ambitions with the generation of comprehensive and actionable knowledge on Europe's environment.

Data collection and information dissemination is therefore an important sub-objective to monitor the progress toward EU environmental policy objectives, including areas like water quality, biodiversity, air quality, land use etc. This knowledge then must be

disseminated effectively to policymakers, hence supplementing their decisions with accurate and up-to-date environmental knowledge to ensure congruity with sustainability goals and scale-up sustainability transitions. Consequently, environmental data and information should effectively be integrated into the policymaking process, therefore fostering sustainable development across all environmental sectors, ranging from biodiversity and circular economy to climate change impacts and human health. The network seeks therefore to innovate data processing, making full use of new technologies and digitalisation. Moreover, the EIONET aims to foster collaboration among the EEA, national agencies throughout Europe, and other stakeholders in the sustainability domain, in order to receive the most comprehensive picture of the state of the environment in Europe but also to assist national-level stakeholders in their actions for sustainable development. Therefore, the EEA in partnership with EIONET seeks to enhance capacitybuilding for national agencies, which includes technical assistance and training for improved data gathering and reporting capabilities. In the current EEA-EIONET Strategy, the network aims to strengthen partnerships and networks by enhancing the engagement of various stakeholders.

Actors

Evidently, the EEA is a central actor in the promotion of environmental policy objectives as it coordinates the EIONET and is responsible for setting up the network activities. Indeed, the EEA not only builds its own work programme around EU policies, first and foremost around the EGD and the 8th EAP, the agency together with its member countries has developed the current EEA-EIONET Strategy 2021-2030 according to the Union's objectives (Interview, 9 August 2023; Interview, 15 August 2023). Despite having adopted a more horizontal governance approach within EIONET, the EEA maintains the strongest say when it comes to the work plan of the network. Moreover, the data collected is managed, processed and disseminated by the agency, meaning that the information, which includes environmental assessments and reports, is forwarded to decision-makers on the EU level, hence supporting policymaking and in particular implementation. Moreover, the EEA plays the main role in deciding on the thematic areas of work. In the EEA-EIONET Strategy (EEA, 2021a) five areas of work have been identified, including biodiversity and ecosystems, climate change mitigation and adaptation, human health and the environment, circular economy and resource use, as well as sustainability trends,

prospects and responses. As these themes are rather broad and seemingly build overarching issues, the network sought to adopt a more integrated approach to environmental issues. For instance, by looking at more specific areas, such as water in relation to broader themes like biodiversity, allows a more holistic picture of environmental issues.

To implement but also to develop these plans, the EEA works closely with its member countries to establish a strategy and action plan considering national needs and perspectives in EIONET's work. Hence, the national networks play a salient supporting and guiding role for the EEA to create a comprehensive and coherent work programme in line with EU policies. The NFPs take up a central position as they act primarily as communication and coordination points in the exchange between EEA and national experts. Hence, NFPs have a responsibility to ensure effective implementation of the work programme on a national level by setting up the national network, which entails the recruitment of experts for the EIONET Groups. Additionally, they oversee the correct and timely delivery of requested information, which also applies to the role of the NDFC focusing on data collection and transfer. In turn, the national experts forming part of the EIONET Groups see their work impacted by the work programme and are expected to deliver the environmental information foreseen in the programming documents. Hence, while the overall programme is constructed around overarching policies and frameworks like the Green Deal and the 8th EAP, the EIONET Groups focus on more specific environmental legislation, such as the EIONET Group on human health and the environment concentrates on the respective policies, while being supported by thematic subgroups consisting of more sector-related experts, including air pollution-air quality and emissions, noise, and chemicals (Interview, 30 August 2023a). This approach ensures an integrated method of information generation by orienting itself on a broader policy area while then breaking it down into more specific sectors. Apart from the thematic foci of the EIONET Groups, their composition has changed, meaning that additionally to mostly scientific experts, some members come now from the private sector, for instance, companies which work on environmental monitoring. This novelty is, according to one interviewee (Interview, 30 August 2023a), enriching as it generates new knowledge, yet at the same time, caution is required as conflicts of interest might emerge due to the danger of enhanced commercial interest in the EIONET Groups.

The EIONET Groups' counterparts on a national level are, as discussed in Chapter 3.1.2., the ETCs, being consortia consisting of a large variety of organisations such as research institutions, universities, national agencies and consultancies coming from various countries. These topic centres support EU green policies perhaps even more intensely as they are contracted by the EEA specifically to assist in the implementation of its work programme, thus serving as an extended desk to the EEA. In other words, the ETCs feed the EU policy development process by generating the most topic-specific knowledge related to certain policy areas. For instance, the ETC on climate change adaptation directs its tasks to the European Climate Change Adaptation Strategy or the Climate Law (Interview, 2 August 2023). This work hence entails reporting responsibilities on various topics, such as air or water quality. However, with the EIONET modernisation, the new ETC on sustainability transitions has been established, which takes, along with the EEA-EIONET Strategy, a more holistic approach. This means that the ETC works with the EEA on cross-cutting issues, which includes the organisation of stakeholder engagement events to discuss and co-create knowledge for sustainability policies, the development of indicators to measure sustainability trends, participation in foresight activities or activities related to sustainability scenarios (Interview, 27 July 2023). In sum, ETCs are central actors in feeding the policy process by generating and co-creating knowledge on environmental issues.

Beyond national level actors, influence EU institutions directly the EEA's and thus EIONET's agenda and tasks. As already pointed out are EU policies the main guiding elements in the creation of work programmes and strategies for the EIONET. What especially interviews have commonly highlighted, is the impact of the European Commission on all parts of the network. Hence, a changing Commission means a change in priorities and tasks for the network, this is particularly due to the EIONET's shift "from a pure environmental monitoring focus to a more policy-driven one ... so to be an active actor in shaping the European policy context" (Interview, 2 August 2023). This means that the network and the EEA orient themselves according to what is happening in the EU and support therefore the implementation of these policies.

Other actors external to EIONET but relevant to its work include for instance scientific experts coming from research institutions or universities, who are members of the EEA's Scientific Committee. This independent advisory body assists the EEA with

decisions related to scientific topics by also giving opinions on the EEA's work programme. Currently, the EEA seeks to enhance the interaction between the Scientific Committee and NFPs, in order to strengthen the knowledge of the national network on certain topics. Moreover, as it is stated on the EIONET Portal, the network seeks a "[s]trong institutional cooperation across national, regional, European, and international levels and partnerships with civil society" (*About the EIONET*, 2023). However, civil society appears to be underrepresented or even absent in this process at the moment and interaction happens rather through or with NGOs:

"[W]e're [the EEA] working through our Brussels office more and more with the Green 101. But we haven't really made that connection between the network and civil society yet, but it's one of the things that we're looking at ... We're working with them [NGOs], and we are, let's say, developing a strategy on how to get engaged with them" (Interview, 30 August 2023a).

Activities

Evidently, activities related to EU environmental policies are nearly all-encompassing considering that the EEA's Single Programming Document (SPD), which also entails activities of the EIONET, is created around EU policies and the agency as well as the network have reporting obligations set out in the EEA/EIONET Regulation. Since the EIONET activities are defined within the EEA's SDP, the following paragraph shall give an overview of the network's *and* the EEA's activities and how they contribute to the achievement of EU green policies since 2020, considering the respective SPDs (EEA, 2019b, 2021b, 2022)².

What stands out right away from this analysis is that since the adaptation of the current EEA-EIONET Strategy, the annual activities are built around the five thematic focus areas defined in the strategy, namely biodiversity and ecosystems, climate change mitigation and adaptation, human health and the environment, circular economy and resource use, and sustainability trends, prospects and responses. The 2020 work

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¹ The 'Green 10' is a coalition of the largest environmental organisations and networks acting at the European level, including BirdLife Europe and Central Asia, CEE Bankwatch Network, Climate Action Network Europe, European Environmental Bureau, Friends of the Earth Europe, Greenpeace European Unit, Health and Environment Alliance, Naturefriends International, Transport & Environment, WWF European Policy Office.

² Due to the absence of the SPD 2021-2023 on the EEA's public documents register, only the annual work programmes from 2020, 2022 and 2023 are considered in this analysis.

programme has structured its activities around so-called strategic areas (i.e., informing policy implementation, assessing systematic challenges, knowledge co-creation, sharing and use, EEA management) and activities on specific thematic areas were incorporated into these headings. This difference indicates that the EEA and EIONET have further shifted towards a policy area-driven approach rather than an operational one.

With regard to the first thematic areas of work of the current multiannual framework, biodiversity and ecosystems, the annual activities of 2022 and 2023 are very similar including actions, mainly supporting the implementation of EU environmental directives (focus on areas like biodiversity, nature, marine, and freshwater) as well as the EU Biodiversity Strategy, supporting the protection and restoration of ecosystems and biodiversity through monitoring and assessing the effectiveness of protection efforts, as well as inform and produce knowledge related to sustainability challenges impacting ecosystems. The 2020 work programme too includes activities related to the evaluation of the 2020 Biodiversity Strategy (containing aspects related to agriculture, forestry, marine) and based on this gives inputs to the policy developments post to 2020 by means of data, information/indicators and assessments.

Concerning the thematic area of climate change mitigation and adaptation, EIONET activities are strongly focused on monitoring, including data collection and reporting related to climate change mitigation (i.e., greenhouse gas reduction targets) and assessing the impact of climate change measures as well as potential solutions for the transition toward climate neutrality. Moreover, particularly in 2022, the network facilitated the exchange of countries on best practices in the achievement of climate-related targets. The 2020 actions took, again, a less holistic approach to the topic, but supported more specific policies and themes, such as decarbonisation and energy efficiency, and land use and climate policies (e.g., LULUCF). Besides, a climate change assessment was undertaken with a focus on impact, vulnerability, and adaptation, contributing to the current EU Climate Change Adaptation Strategy.

The human health and environment work area is a rather new theme so that in the two most recent work programmes the EIONET and the EEA have contributed to monitoring the nexus between environmental stressors and social factors. This involves reporting and managing data on health-related environmental issues such as air quality and noise, as well as contributing to sustainability assessments, like on the benefits of green and blue

infrastructure to human health in line with EU policies promoting green spaces in urban areas, or the use of chemicals in socio-technological systems which helps understand the exposure of both the environment and human health. Noteworthy, in the SPD of 2020, human health and environment efforts appear to still have been in their infancy, as related activities focused merely on meetings with a specific focus on chemicals and a briefing on opportunities to protect health and Europe's ecosystems. It can therefore be concluded that the topic has increased in salience over the past four years with a significant increase in the number and scope of activities related to it.

The 2022 and 2023 work plans align again strongly in its circular economy and resource use activities, the current one being largely a continuation of the previous. The EIONET strengthens the monitoring of the progress toward a circular economy and industrial transformation, in line with the EU Circular Economy Action Plan. A further focus has been put on waste legislation and its implementation, promoting waste prevention programmes, which has also been a focus in the 2020 actions. Moreover, the EIONET has analysed sustainable resource use in relation to material flows, resource efficiency, and critical raw materials, helping to understand the environmental impact of key product value chains, such as plastics and textiles. The 2020 programme further assists in identifying synergies between the circular economy and related policy areas in order to close knowledge gaps.

The last work area, sustainability trends, prospects and responses, is a rather cross-cutting area, supporting the overall achievement of sustainability goals. This integrated approach was again adopted with the current EEA-EIONET Strategy and in the past two annual work plans, involving activities related to the development of integrated assessments, socioeconomic analysis, policy analysis, foresight, and systems interlinkages, but also monitoring activities concerning the progress tracking of sustainability objectives outlined in the EGD and the 8th EAP. Additionally, EIONET has facilitated the exchange of the network with external actors such as policy stakeholders and knowledge communities. The 2020 actions also align with the subsequent programmes, although they are outlined in a single work area. Precisely, sustainability assessments exploring ecological, economic, and social dimensions of systems change demonstrate a holistic understanding of policy challenges. Importantly, the network contributed to the publishing of the State of the Environment Report, a rich document

published every five years providing insights on Europe's status of the environment, linking it to current policies and identifying policy gaps to be tackled to reach overarching, long-term sustainability goals.

In sum, these insights into the activities planned for EIONET and the EEA in their work programmes highlighted the holistic approach to addressing sustainability challenges by consistently taking also current EU policies into consideration. While overlaps and continuities are clearly noticeable in the work programmes, particularly what concerns the once falling within the same multiannual framework but also regarding specific policy areas, an evolution of the network activities is observable. The latter applies especially to the altered approach in addressing wide policy areas, trying to identify nexuses in emerging sustainability challenges which should therefore better treat interconnected issues and policy objectives.

Beyond activities related to thematic areas, the EEA and EIONET make use of sophisticated monitoring and evaluation mechanisms, assessing the impact and value of their actions. First, the EEA yearly assesses quantitatively the member and cooperating countries' performance when it comes to data delivery, published publicly in the so-called EIONET core data flows, summarising the evaluation of hundreds of data deliveries received from reporting countries based on data quality and timeliness. Second, each meeting held within the network is evaluated right after its holding, asking participants questions related to usefulness, further needs, positive or negative aspects etc., hence representing a qualitative evaluation approach. Third, the EEA as well as EIONET are evaluated every five years, where for the EIONET all parts of the network are consulted, including NFPs, ETCs and EIONET Groups, to assess the efficient and effective functioning of the network, but also the EEA as a whole. These assessments are relevant to the promotion of environmental policy objectives since they give the network a direction in which aspects and actions to improve (Interview, 30 August 2023a).

Limitations

Despite comprehensive and in-depth information and knowledge production of the EIONET, several aspects have come forward from this investigation which limit the network in promoting sustainability goals. Unsurprisingly, resources are as much of an issue for the EIONET as for the EEAC Network, at both EEA and even more so at a country level. Especially at the national level resources are often a determinant of how

much time and personnel a country can invest in EIONET-related activities. It is therefore that some countries, particularly smaller ones, lack timely and qualitative data delivery. This can result in discrepancies related to data quality, consistency, and availability between countries. Yet, resource issues go beyond data delivery, especially since the EIONET has become a more and more knowledge-driven instead of data-driven network, meaning that many rather new activities, such as co-creation projects, become challenging for some countries (Interview, 30 August 2023a).

Second, the engagement of countries in EIONET activities varies notably, which often comes with the visibility of the added value of certain activities for the countries themselves. As already mentioned earlier in this thesis, tend non-EU countries to be more active as they are voluntarily part of the EEA, meaning that they are aware of the value added coming from the network. An effective communication of, for instance, outputs produced would enhance this awareness. This might seem obvious, but at the national level, agencies and authorities are often not aware of the products coming from the EEA, to which they had initially contributed (Interview, 15 August 2023). This leads to situations where countries make extra and overlapping efforts to generate knowledge already elaborated.

Third, and related to the importance of communication, is stakeholder and task coordination a challenge. Including a wide range of actors – in fact over 2000 experts from more than 400 institutions – EIONET demands advanced coordination tools, which can become challenging. An apt example is ETCs as they are consortia consisting of ten up to 25 organisations of which one is the coordinating organisation. Interviews with participants have shown that effective communication mechanisms within the consortia are central to managing the assigned tasks (Interview, 2 August 2023). The latter often become overwhelming to national actors, which is why one ETC has almost halved its tasks for this year in comparison to the previous year, for instance. A similar coordination role have NFPs as they oversee the expected activities and report obligations of their national networks. This often challenges expectations from part of the EEA, thus requiring a compromise between the EEA and national actors (Interview, 9 August 2023).

Fourth, governance challenges related to limited horizontal or bottom-up approaches can influence the ability of the network to effectively tackle environmental issues. This has already been outlined in the previous chapter and is indeed an important aspect to consider in relation to sustainability objectives since policies have eventually to be implemented in the countries. With the EIONET modernisation since 2022, a collaboration on equal footing between the EEA and national agencies has undoubtedly improved (Interview, 30 August 2023a; Interview, 15 August 2023). Yet, further inclusion could enhance national-level policy implementation. This aligns with a lack of stakeholder inclusion, particularly what concerns civil society. Although one of EIONET's missions is to cooperate and strengthen its partnerships with civil society, a direct link is still missing, which undermines particularly citizens' awareness of sustainability issues.

Fifth, evolving policy priorities at the EU level and new sustainability challenges can pose a challenge to adapt and respond timely and efficiently, as one interview partner highlighted:

"The major challenge is really to stay on top of policy developments: 'What's coming? What's happening? What's going on in your country, in your network, in your agency?' And that is quite a task. It's almost too big ... There's a lot of changes that take place ... we're going to have a new Commission coming in at some point with new policies. And then the question is: 'Is EIONET still fit for purpose? Do we have to change it again?' So, there is a lot of fluctuation and ... it seems like sometimes it's just always a moving target." (Interview, 9 August 2023)

Hence, EIONET needs to keep pace with evolving issues and priorities to remain relevant on the one hand and to effectively support these priorities on the other. This requires a responsive, forward-thinking, and flexible network. However, looking at the recent EIONET modernisation, can such an adaptation take years to become effective. Exemplary are the restructured EIONET Groups which, in some cases, still try to find a way to collaborate more efficiently (see Chapter 3.1.2.), but also to implement the new, more integrated approach of their thematic work areas. The latter refers to the merging of 24 to 13 EIONET Groups under more holistic topics, which has so far a varying degree of success, according to an EEA interview participant. Precisely, there are currently two EIONET Groups on biodiversity and ecosystems,

"one group focusing on biodiversity data and one group focusing on biodiversity assessments. I think we're coming slowly to the conclusion that maybe that's not the best way of doing this. So, we're constantly looking to see whether everything

is fit for purpose, but the basis is of course the work of the EEA and the needs of our stakeholders and whatever we have decided in our 10-year strategy and that's the guiding principle." (Interview, 30 August 2023a)

Hence, this demonstrates the constraints the EIONET faces when it comes to adapting fast and efficiently, seeing itself also challenged by a set of pre-determined factors.

Yet, in conclusion, the EIONET plays undoubtedly a central role when it comes to bridging data and knowledge with environmental policymaking. As the biggest collector and provider of environmental data in Europe, the network actively contributes to the EU policymaking process by monitoring the progress of the state of the environment towards sustainability goals. Its commitment to aligning its strategies with the EU policy agenda ensures a comprehensive approach to tackling the most salient environmental issues in Europe. With over 2000 experts participating in the EIONET, it consists of a broad knowledge base, yet leaving out stakeholders relevant to a comprehensive picture of knowledge generation and dissemination, which applies to civil society and, to some extent, NGOs. Moreover, differences in member and cooperating countries in terms of resources and working culture pose coordination challenges to the EIONET. However, by adopting a more horizontal governance approach in the last few years, the EIONET and the EEA not only seek to enhance communication mechanisms in the network but also to involve national stakeholders earlier and more intensely in the decision-making process. In relation to the promotion of sustainability objectives of the EU, this is essential to keep the most complete view on developments and issues at all levels of governance. This includes, evidently, the EU level, and the EIONET with the EEA is in close contact with EU institutions, particularly the Commission. This access to decision-makers is an important aspect in the communication of the state of the environment and evolving sustainability issues which need to be addressed. Conversely, the network needs to be flexible enough in order to adapt efficiently and fast to changing policy priorities at the EU level, which can be challenging in the context of a large and structurally complex network.

Hence, aspects to be considered for effective promotion of environmental policy objectives related to sustainable development applicable to the two networks studied are – in line with the mechanisms found by Börzel and Heard-Lauréote (2009, see Chapter 1.2.), yet enrichened and modified based on the findings of the present analysis on the

two governance networks – communication and trust, stakeholder inclusion, flexibility, access to decision-makers, goal consensus within the network and beyond (i.e., at EU level), and the aggregation and use of knowledge and resources to effectively address sustainability issues in a timely manner.

Conclusion

Tackling climate change and environmental degradation while at the same time fostering social well-being and boosting economic growth is undoubtedly one of the most complex challenges our society has been confronted with. But what is the true value of initiatives such as policies to curb the use of single-use plastics or large-scale ecological restoration laws if we lack adaptive tools to govern their success and impact? In the EU multilevel governance system, this inefficacy in implementing policies due to a lack of administrative capacity is in the literature often described as governance dilemma (Keohane, 2001). A way out saw the European Commission in the adoption of new and more integrative governance practices, such as transparency, accountability, and effectiveness, based on the principles of 'good governance'. The 2001 White Paper on Governance therefore manifests the promotion of new modes of governance, which seek to achieve policy goals by building on extant capacities of hierarchy (i.e., legislation and regulation) and market mechanisms, through network forms of governance (Jordan & Schout, 2006). These two complexities – sustainability and governance – have therefore been the starting point of this thesis, seeking to contribute to the understanding of how transnational governance networks in the EU function and whether they are apt tools to govern sustainability in a multilevel system.

Since the existing literature on governance networks in Europe is dominated by single case studies and research on two large and relevant networks acting in the environmental sphere is strikingly scarce, this work has studied the European Environment and Sustainable Development Advisory Councils Network and the European Environment Information and Observation Network through a mixed-method qualitative approach, with the goal to understand the nature and effectiveness of networks in environmental and sustainability governance in Europe. Both networks aim at enhancing informed decision-making when it comes to environmental policymaking,

bringing together different actors from various levels of governance through a cross-sectoral exchange setting. Yet, their institutional set-up and scope differ significantly. On the one hand, the EEAC Network consists of 18 national and sub-national advisory bodies from 14 countries, bringing together multi-stakeholder bodies, mixed expert bodies, and scientific expert councils, offering independent advice to their governments. Characterised by a bottom-up establishment and governance model, the network takes decisions based on consensus, putting into the foreground the interests and priorities of its member councils. This is most strongly expressed in the working groups and their activities, being divided into overarching themes on the agenda. What and how many activities are conducted within each group depends on the engagement and interests of the councils. The Board and the network coordinator take over a central coordinating and steering role, responsible for the effective translation of the network's needs into actions. Hence, this weak leadership tends to underscore the tension between active participation and democratic decision-making processes, as new initiatives and activities need the confirmation of the member councils.

On the other hand, the EIONET brings together actors from more than 400 institutions and organisations from 38 European countries, which are organised into various parts taking over environmental data collection and distribution tasks (i.e., national data reporters and Data Flow Coordinators), coordination and communication responsibilities (i.e., National Focal Points, team leads, and EEA Management Board and coordinating positions), as well as knowledge exchange and generation roles (i.e., European Topic Centres, EIONET Groups, the EEA Scientific Committee, and NFPs to some extent). A network which not only enhances exchange and cooperation among members but also monitors and assesses the state of the environment of Europe in order to improve decision-making, needs, evidently, sophisticated and stronger coordination tools. This is why the EEA takes over the central steering role so that the network's agenda and its activities are built around the EEA's work programme and its priorities and, therefore, the European Commission's. Despite the top-down establishment model of the EIONET, with the EIONET modernisation increased efforts have been made to create a more horizontal governance approach, particularly by involving various parts of the EIONET earlier and stronger in the creation of the work plans and enhancing knowledge exchange through co-creation activities. However, a horizontal collaboration

culture is still not internalised in the EIONET working methods and day-to-day governance approach, expressed through the limited say and involvement of national actors in activities and agenda planning.

Thus, enduring governance networks do indeed require a central steering body (Schout & Jordan, 2005), giving an overall direction and guidance. However, networks involving more tasks, actors, and issues to be addressed, demand a high-level, stronger coordinated type of organisation, while soft and horizontal governance approaches are at the same time longed for, mainly due to the acknowledgement of an enhanced collaboration and better knowledge exchange between all parts of the network. This stresses the tension or rather balance to strike between centralisation and horizontal governance in networks, calling for adaptability and flexibility of the network.

Furthermore, through a comparative analysis, this thesis has shown that governance networks share a set of factors influencing their behaviour. First and most evidently, resources available at both national and network levels determine what and how activities can be carried out. At the national level, this is even more of a pressing issue since the resources available determine how much time and effort national members can invest in network activities. This is a crucial aspect to consider since the involvement of these actors is essential in network constellations, determining their performance. Second, national institutional set-ups are a protagonist when it comes to the stability and coherence of the network and its members. National members linked to their government tend to be less stable in their involvement in the network, which can be attributed to increased volatility related to government changes affecting both positions and resources related to the network set-up. Working cultures related to bureaucratic burdens in national settings might also influence the investment of actors in network activities. Third, engagement and participation of network members independent from the thus far mentioned factors further influence the activities and operations pursued at a network level, especially the perceived added value of certain actions for the members is decisive. Fourth, steering by the coordinating organisation particularly determines the number and type of activities pursued by the network as well as decisions taken, so that the organisation takes over a guiding role in terms of agenda and activities carried out. Fifth, priorities at the European policy level substantially influence the agenda of the networks, as they orient themselves in their strategies and activities according to them. While the EIONET and the EEA build their work programme around EU objectives, the EEAC Network supports its members above all in the integration of those goals in their advice. Sixth, international developments of distinct natures affect both activities and working methods. The latter is particularly affected by events and crises such as the Covid-19 pandemic, influencing how certain activities are carried out. Moreover, global conventions such as the 2030 Agenda are considered in networks' agendas.

Considering that both the EEAC Network and the EIONET guide themselves along EU policies, this thesis has further investigated in what way they promote environmental and sustainability policy goals. On one hand, the EEAC Network aims to liaise EU green policies with the work of its member councils and in that way enhance the councils' advice at the national level through informed considerations of EU policy developments, and in turn, to exchange with EU level institutions and organisations about (sub-)national perspectives and insights. The network provides an apt framework, including activities such as monitoring policy developments, capacity building in the form of workshops and webinars, and facilitating inter-council collaboration within working groups for enhanced policy advice. The inclusion of representatives from all stakeholder groups, ranging from the private and public sectors to civil society and academia, enables a comprehensive view of the developments. However, resource constraints coupled with the challenge to effectively translate council interests and priorities into pertinent activities of added value in line with EU policies in a comprehensive manner, hits the limits of the network's operational frame. On the other hand, the EIONET actively supports EU policy implementation and provides knowledge, information and data to policymakers. By building the network's strategy and agenda around EU-level policy objectives and having set up a network comprising, except for the UK, all European countries with a large number of actors and institutions, the EIONET is a highly relevant contributor to the environmental policymaking process of the EU. The challenge to remain, as large and sophisticated EU-level network, on top of an ever-evolving policy landscape while at the same time including a wide range of actors in the process poses the main difficulty to the EIONET.

The analysis of contributions and limitations of the two networks in promoting environmental policy objectives related to sustainable development has brought forward several aspects necessary for governance networks' effectiveness in this regard, building on the mechanisms found by Börzel and Heard-Lauréote (2009). Communication and trust, stakeholder inclusion, flexibility, access to decision-makers, goal consensus within the network and beyond (i.e., at EU-level), as well as the aggregation and use of knowledge and resources to effectively address sustainability issues in a timely manner have resulted to be crucial components to integrate.

What do these findings implicate for literature and practice? In short, to pick up on the question I posed at the beginning of this concluding chapter, we need to understand governance modes and the way they work and function in order to successfully and effectively tackle environmental issues, therefore preventing us from running circles when it comes to governing the environment and sustainable development. The rather new network governance approach can indeed pose an apt tool for governing environmental matters. However, it is, in the environmental field, a rather complementary way to hierarchical instruments (i.e., legislation and regulation), as many networks lack enforcement capacities. Notwithstanding, governance networks can play a pivotal role when it comes to knowledge and information generation central to policymaking, having the capability to influence each part of the policy cycle and enrich its outcomes. Particularly multilevel, stakeholder inclusive and inter-sectoral networks can be advantageous in the European green policy sphere, therefore aligning with governing principles of sustainable development, characterised by cross-sectoral integration, cross-jurisdictional coordination and inclusiveness in decision-making (Domorenok, 2019).

By studying two relevant European level networks in-depth, including their characteristics, composition, governance structures and mechanisms, and decision-making processes, this thesis has provided valuable insights into how they address sustainability in a multi-level and multi-actor setting. Understanding factors which influence their behaviour is particularly important to enhance the practical implementation of network governance and to give scholarship valuable insights for future investigations. Additionally, network effectiveness in the promotion of EU sustainability and environmental policy objectives has given a practical view on contributions and limitations of the networks in this regard, whereby aspects important to the effective functioning of governance networks on this point have come to light.

Considering this, several pathways have opened to study networks further in the context of sustainability governance in the EU. First, due to the lack of comparative and

generalisable studies, further multiple case studies should be conducted, particularly because of the presence of numerous networks present in the European environmental sphere which haven't received sufficient scholarly attention (e.g., the EPA Network, IMPEL, ENCA etc.). Second, the present work has only made use of qualitative methods, while quantitative (for instance through social network analysis) and mixed methods are desirable. Quantitative approaches would be particularly useful to further test the deductive results coming from this work, namely, the influencing factors to networks' behaviour as well as aspects relevant to the effective promotion of EU environmental and sustainability objectives.

Finding the appropriate tools to govern sustainability is clearly a continuing quest, as both our society and the natural world have become ever-evolving elements. This master's thesis has sought to make a contribution to this task and while networks are no panacea to the persisting European environmental and sustainability governance challenge, they have the potential to bring together individuals and organisations for a resilient and thriving future, reflecting the recognition that sustainable development is a joint commitment.

Appendices

Annex I List of documents used for the document analysis, based on Bowen (2009).

Documents selected	Data analysed			
EEAC Network				
Certified Statutes. Formation E.E.A.C. Foundation	Governance, structure, decision-making process			
Serving the science, society, policy interface for a better world. An overview of Advisory Councils on the Environment and for Sustainable Development in Europe.	Structure, composition, characteristics of the individual advisory councils			
Annual Plan 2020. Creating added value through exchanging, cooperating and liaising.	Functions, activities, behaviour, promotion of EU sustainability policies (objectives, actors, activities)			
Annual Plan 2021. Strengthened advice through exchange, knowledge building & cooperation.	Functions, activities, behaviour, promotion of EU sustainability policies (objectives, actors, activities)			
Annual Plan 2023	Functions, activities, behaviour, promotion of EU sustainability policies (objectives, actors, activities)			
State of Play Report. January - August 2022.	Functions, activities, promotion of EU sustainability policies (objectives, actors, activities)			
Opinion on biodiversity policy	EU environmental policy in member council's advice			
EIONET				
EIONET ABC. A short guide to the EIONET.	Structure, composition and characteristics of the EIONET, governance, decision-making processes			
EEA-EIONET Strategy 2021-2030	Functions, promotion of EU sustainability policies (objectives), EIONET modernisation			
European Environment Agency: Single Programming Document 2020 - 2022.	Promotion of EU sustainability objectives (activities)			
European Environment Agency: Single Programming Document 2022 - 2024.	Promotion of EU sustainability objectives (activities)			
European Environment Agency: Single Programming Document 2023 - 2025.	Promotion of EU sustainability objectives (activities)			

Annex II List of interviews.

No.	Network	Position	Interview date
1	EIONET	Coordinating position in an ETC	27.07.2023
2	EIONET	Coordinating position in an ETC	02.08.2023
3	EIONET	NFP from a member country	09.08.2023
4	EIONET	NFP from a member country	15.08.2023
5	EIONET	EEA employee, EIONET coordinating	30.08.2023
		position	
6	EEAC Network	EEAC secretariat, coordinating position	30.08.2023
7	EEAC Network	Advisory council member, WG co-chair	08.09.2023

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