

Unlocking Green Potential:

Assessing the Performance of Governance Networks in EU-funded Eco-Innovation Policy Projects

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Master European Governance

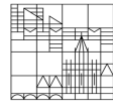
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Abstract

Existing literature on networked governance recognises the significance of multi-actor arrangements in shaping political mechanisms, such as policy and project implementation. Empirical evidence in this regard is, however, rather limited. With the aim of contributing to existing studies in this field, this thesis attempts to empirically assess network performance in the European multi-level governance system. Specifically, this study draws on previous theories and findings on governance networks to construct a comprehensive analysis of the impacts of network-specific attributes on performance in policy project implementation. The analysis focuses on the pivotal role of governance networks in executing EU-funded projects established to support SMEs' green entrepreneurship and to advance EU policy development for environmental sustainability. By collecting empirical data through semi-structured interviews, this research uncovers interesting insights regarding the crucial calibration of collaborative dynamics, the cultivation of trust, the alignment of goals and the promotion of integrated relations within networks. In particular, the findings highlight how the interplay of these factors is essential to successfully maximise the potential and performance of governance networks in political processes. Addressing collaboration imbalances and ensuring alignment with regional, national, and supranational policies become a necessity for multi-actor configurations aiming to successfully implement EU initiatives and fully enhance their socio-political impact.



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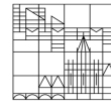
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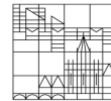
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Introduction

In recent times, growing environmental concerns have pressured individuals and businesses to prioritise the implementation of sustainable practices and business models, contributing to the establishment of a global greener economy (Skordoulis et al., 2019). The concepts of green entrepreneurship, eco-innovation, and green innovation have emerged to describe the utilisation of innovative technologies, strategies, and practices aimed at positively impacting environmental and social performance (Cuerva et al., 2014; Muangmee et al., 2021). Several studies have recognised that enterprises can enhance their competitive advantage and generate economic value by employing effective environmental strategies, thus contributing to sustainable development (Chang, 2011; Chen & Liu, 2018; Danso et al., 2019; Skordoulis et al., 2022). Embracing the principles of eco-innovation and green entrepreneurship in business operations requires developing environmentally friendly products, processes, and services, associated with positive societal and economic outcomes (Muangmee et al., 2021).

The European Union (EU) has set ambitious goals for the transition to a low-carbon economy (Pianta and Lucchese, 2020). Over the past decade, the EU has introduced numerous sustainability-focused initiatives, especially within the framework of the European Green Deal, with the aim of supporting firms in their journey towards comprehensive green entrepreneurship, enhancing their competitiveness and increasing their market access opportunities (Szabo et al., 2022). Small and medium-sized enterprises (SMEs), which account for over 99% of all businesses in Europe, play a critical role in driving innovation, job creation, and improving quality of life (OECD, 2017; European Commission, n.d.). Given their significance to the European socio-economic context, the EU has prioritised SMEs in its plans for the green transition, emphasising the need for the integration of green practices and technologies into their business plans (European Commission, n.d.).

The current body of literature underscores the significance of networks, particularly governance networks, in assisting governments and public entities to execute their policy and service delivery plans across various sectors. At the heart of this lies the particular collaborative configuration that characterises these networks (Beers and Geerling-Eiff, 2014; Hofstad and Torfing, 2015; Klijn and Koppenjan, 2012; Sørensen and Torfing, 2017). The

literature, however, hardly investigates how successful the service-delivery activities of such governance networks are (Boumans and Ferry, 2019). This thesis project seeks to bridge this theoretical gap by analysing the role of governance networks in promoting the adoption of environmental sustainability strategies among European SMEs. Specifically, this research focuses on investigating governance networks' implementation of policy projects elaborated in accordance with the EU's overarching goal of establishing a circular and climate-neutral economy. The research will specifically address the following research question:

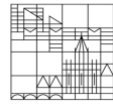
RQ: *How well do governance networks perform in implementing EU-funded projects aimed at supporting SMEs in achieving their eco-innovation goals?*

To answer this research question, the study will explore the following sub-questions:

1. How do governance networks operate within the context of EU environmental sustainability policies?
2. What are the main challenges faced by SMEs in adopting green innovation strategies in the EU context? What are the key drivers?
3. What characteristics of governance networks can be considered key contributing factors to their performance in the implementation of EU-funded projects?

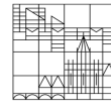
Societal and academic relevance

Concerns surrounding climate change and environmental degradation have led to heightened awareness across all layers of society, resulting in increased demand for action, particularly on the political front. Expectations behind policymakers' plans to drive change in environmental sustainability have strongly intensified. As a result, policy reforms, implementation of environmental regulations, and engagement in international cooperation have started to become the norm in the global political arena. Yet, these societal pressures have extended beyond the boundaries of policymaking, affecting the business community as well. Behind this transition lies the recognition that the responsibility to react does not fall solely on policymakers, but also on enterprises. These are now expected to adopt eco-friendly business strategies and promote green innovation, while also fully complying with environmental policies. By focusing specifically on the implementation of eco-innovative



business operations, this thesis aims to shed light on how the business sector can successfully respond to the societal call for climate action and climate reaction.

The role of governance networks is crucial in this regard. While an extensive body of literature has focused on examining governance networks' configurations, their evolving functions, and their political involvement, these studies have primarily been of descriptive nature, therefore lacking sufficient empirical evidence to prove the concrete impact of these networks, particularly concerning political development. This gap is especially apparent at the European level, despite the increasing involvement of networks in the EU multi-level governance system. Understanding in a comprehensive manner the dynamics and mechanisms of these networks could help assess how their characteristics can be fully exploited to maximise their role in the political process. This thesis reflects on this gap, with the aim of providing useful insights into the theoretical discourse on governance networks.



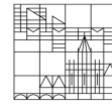
Literature Review

Eco-innovation, green innovation and green entrepreneurship

The political, social, and economic response to the challenges of climate change and environmental degradation has recently undergone a significant transformation. The discourse on environmental sustainability has rapidly started witnessing the recognition of the need for increased global cooperation in order to develop effective sustainable and green solutions. As the complexities and urgency of the climate crisis have intensified, scholars have engaged in heated debates on this topic, moving beyond the traditional understanding of environmental sustainability. *What kind of resources, innovative activities, and ideas could help individuals and businesses contribute to mitigating the current climate crisis?* In attempting to address this question, scholars have introduced new concepts, such as "eco-innovation," "green innovation," and "green entrepreneurship," which are often used interchangeably (Díaz-García et al., 2015).

The term "eco-innovation" refers to the "assimilation or exploitation of a product, production process, service or management or business method that is novel to the organisation (developing or adopting it) and which results, throughout its life cycle, in a reduction of environmental risk, pollution, and other negative impacts of resources use (including energy use) compared to relevant alternatives" (Díaz-García et al., 2015; Kemp and Pearson, 2007, p. 8).

The importance of this concept has grown considerably over the past few decades. Scholars have extensively investigated its effects, drivers, implementation, and policy contexts across various sectors, with particular attention to the industrial and business management sector (Díaz-García et al., 2015). These studies strongly emphasise the significance of integrating different elements of eco-innovation and green entrepreneurship to achieve positive environmental outcomes. For instance, Triguero et al. (2013) identify three dimensions of eco-innovation within the industrial domain, meaning eco-product, eco-process, and eco-organisational. García-Granero et al. (2020) provide a similar classification by analysing the adoption of eco-innovation from multiple dimensions, including process, product, organisation, and marketing perspectives. Through this comprehensive approach, businesses



are enabled to implement sustainable management strategies and a new environmentally conscious business culture characterised by the incorporation of eco-friendly technologies, materials for product development, circular practices, eco-labelling, and eco-design plans to mitigate CO₂ emissions in their processes *ibid.*, 2020). As a result, businesses must adapt their marketing methodologies, green communication strategies, and human resources allocation, while also engaging in improved financial activities (Chen et al., 2006; García-Granero et al., 2020; Triguero et al., 2013).

Barriers and Motivators to Eco-innovation

The analysis of drivers and barriers to eco-innovation represents a prominent focus in the existing literature within this field of study. When discussing hindering factors, scholars primarily address the organisational and technical aspects of businesses. The absence of an environmental management system (EMS) within a firm can cause significant delays in the achievement of its eco-innovation and environmental sustainability objectives, therefore aggravating potential negative environmental impacts linked to business operations (Biondi and Iraldo, 2002). Key barriers include the lack of human resources, inadequately skilled labour, time constraints, pressures to maximise profitability, limited familiarity with eco-innovation practices, and the absence of external and financial support (*ibid.*, 2002).

Pressures exerted by numerous public and private entities have significantly enhanced the incentive for businesses to adopt environmental innovation strategies. Compliance with national and supranational environmental legislation, together with the pursuit of positive economic well-being, has certainly guided the transition of businesses at the global level (*ibid.*, 2002). However, numerous other motivating factors have also contributed to this profound change. To counteract the negative trajectory of unsustainable development, Díaz-García et al. (2015) identify several drivers categorised at the macro-, meso-, and micro-levels. At the macro-level, the authors highlight the importance of eco-innovation, technological innovation, and industry-related regulatory frameworks as the primary driving forces (*ibid.*, 2015). At the meso-level, financial resources, evolving customer requirements, changing consumer perceptions towards eco-friendly and sustainable choices, and network engagement play significant roles (*ibid.*, 2015). Finally, at the micro-level, the authors refer to

the internal health and structure of a company, encompassing aspects such as business plans, cost-saving strategies, professional skill development, cooperation tendencies, and involvement in research and development (ibid., 2015).

Importance of SMEs

The implementation of green entrepreneurship strategies often poses greater challenges for smaller companies due to their limited resources, hindering their ability to undergo substantial structural changes towards adopting ecological practices. SMEs emerge as victims of the aforementioned barriers to environmental innovation and green entrepreneurship. Consequently, they face a significant risk of contributing to environmental degradation (Biondi and Iraldo, 2002). The prevailing political and economic climate surrounding SMEs has frequently been characterised by a focus on compliance avoidance, rather than the provision of incentives and allowances to foster environmental transformation (Biondi and Iraldo, 2002; Triguero et al., 2013). As a result, SMEs tend to lag behind in terms of research, innovation, and awareness regarding the importance of embracing green practices in modern industries. Insufficient access to comprehensive information on environmental sustainability beyond the boundaries of regulatory frameworks can aggravate organisational and managerial challenges, placing SMEs at a competitive disadvantage in the market (Triguero et al., 2013).

Given that SMEs constitute a significant majority within the industrial landscape, greater attention from the political sphere is warranted to provide environmental solutions that can enhance their ecological performance (Biondi and Iraldo, 2002). Policy measures should aim to offer SMEs opportunities, particularly in the realms of financing, and research and development, enabling them to adopt sustainable practices and technologies, engage in environmental innovation, and reap the positive economic and social benefits associated with eco-innovation (Cainelli et al., 2012; Czarnitzki & Hottenrott, 2011; Porter and van der Linde, 1995). SMEs play a pivotal role in contributing to overall economic prosperity within the European Union (OECD, 2017). As a result, various political initiatives have been developed with the aim of strengthening SMEs' growth and competitiveness across all Member States (OECD, 2017). Particular attention has been given to advancing SMEs in the field of environmental sustainability (European Commission, 2020) (Table 1). The European Green

Deal, representing the most substantial political plan for achieving climate neutrality, encompasses numerous legislative measures and funding programs aimed at reinforcing the adoption of green and sustainable practices across various sectors, particularly the industrial sector (European Council, n.d.). Even prior to the introduction of the Green Deal, growing complexities linked to climate change pushed the EU to acknowledge the need to support SMEs in becoming more environmentally conscious. Consequently, several initiatives have laid the groundwork for the development of the EU Green Deal, with many others contributing to its overarching objectives.

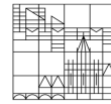
Table 1: Relevant EU initiatives for SMEs in the field of environmental sustainability

| Relevant EU initiatives | |
|----------------------------------------------------------|---------------------------|
| <u>Policies</u> | <u>Funding programmes</u> |
| Small Business Act | Horizon Europe |
| SME Strategy for a Sustainable and Digital Europe (2020) | Innovation Fund |
| SME Performance Review | COSME Programme |
| Green Action Plan for SMEs | InvestEU |
| Eco-Innovation Action Plan | Horizon 2020 |
| Green Deal Industrial Plan | LIFE Program |

Governance Networks

Defining governance networks

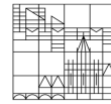
The advent of new societal, political, and economic challenges has driven important changes in the traditional functioning of public governance. Current political systems have revealed themselves to be inadequately prepared to address these complex challenges, given their lack of resources and their highly inflexible nature (Sørensen and Torfing, 2017). In order to tackle



this issue, a horizontal, interactive, and collaborative form of governance has emerged, characterised by the active engagement of both public and private actors in governance processes (Kooiman, 1999). This transformative shift in governance has led to the establishment of a so-called network society, where various collaborative arrangements, ranging from conventional public-private partnerships to highly engaging policymaking frameworks, are identified (Dedeurwaerdere, 2017; Torfing and Sørensen, 2014).

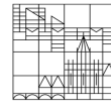
The current body of literature in the field of networked governance has revealed that networks play a crucial role in facilitating political processes. As highlighted by Börzel and Heard-Lauréote (2009), networks function as adaptable and coordinating configurations, with the aim of providing valuable assistance to governments and other institutional entities in tackling policy issues, solving conflicts of interest, and achieving favourable service-delivery results (Klijn, 2008; Torfing and Sørensen, 2014). In this context, it is worth mentioning the role of governance networks, composed of a group of heterogeneous actors, such as public entities, private businesses and non-governmental organisations (NGOs) which are involved in elaborate and multi-level relationships (Börzel and Heard-Lauréote, 2009). Governance networks are particularly important in the domain of public governance, as they represent a *"horizontal articulation of interdependent, but operationally autonomous actors from the public and/or private sector [...] who contribute to the production of public purpose in the broad sense of public values, plans, standards, visions, regulations, and concrete decisions"* (Torfing and Sørensen, 2014, p.334). What distinguishes governance networks from traditional market-based and hierarchical models of governance is their resource-exchange abilities across different sectors, as well as their processes of information-gathering and knowledge-sharing happening through continuous collaborative interdependencies. Furthermore, another distinct feature of governance networks is the significance of value alignment and a strong sense of commitment to common goals among network members (Cainelli et al., 2012; Dedeurwaerdere, 2017; Kassim, 2007; Provan and Kenis, 2008).

Governance networks' characteristics have been analysed from several theoretical points of view (Klijn and Koppenjan, 2012). Many authors have drawn their arguments on game theory, historical institutionalism, interdependence theory, or governability theory to build a useful framework for understanding elements of governance networks such as their foundations,



functioning, effectiveness, democratic legitimacy, and accountability (Sørensen and Torfing, 2007; Provan and Kenis, 2008). As pointed out by Torfing and Sørensen (2014), governance networks can be analysed through different institutionalist theories, each providing insights into their origins, their relationships with institutional and governmental entities, and their internal organisational arrangements. The institutionalist approach becomes particularly useful when it comes to categorising different forms of governance networks. For instance, governance networks can be classified as participant-governed or externally governed (Provan and Kenis, 2008). In the former, governments mobilise networks with the aim of receiving their collective support and then they encourage them to self-regulate. On the other hand, externally governed networks witness the constant involvement of outside actors, which are responsible for designing network structures, operations, and value orientations (Schout and Jordan, 2005). Governance networks can also be categorised as centralised or decentralised (Provan and Kenis, 2008). In a highly decentralised network, all members participate equally in the governance process, with interactions occurring among all network members. This suggests the absence of a singular actor responsible for the entire functioning of the network (ibid., 2008). Conversely, in a highly brokered network, a lead organisation assumes the responsibility of managing activities and relationships among network members, resulting in fewer interactions between network organisations (ibid., 2008).

In the classification of different forms of governance networks, Klijn's (2005) approach comprehensively surpasses the conventional institutionalist perspective. He identifies three distinct types of governance networks based on different theoretical frameworks: (1) policy networks, originating from traditional political science and the perspective of policy communities, encompass all actors actively involved in decision-making processes and power dynamics; (2) inter-organisational service delivery and policy implementation networks, analysed from an organisational point of view, focus on coordination and participation among network members and on inter-organisational mechanisms employed in adopting, delivering, or implementing services, products, or policies; (3) governing networks, studied from a public administration perspective, examine the relationships between networks and traditional institutions, as well as how they attain legitimacy throughout the policymaking and implementation processes. Despite originating from different theoretical foundations, these three types of governance networks share common values, and in recent years, they have

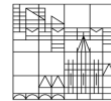


shown signs of convergence, leading to the development of diverse theoretical models (ibid., 2005). As aforementioned, governance network theory is characterised by its dispersed nature and continual evolution. Nonetheless, all its variations prove valuable in analysing the ever-changing dynamics of the networked society.

Factors contributing to governance network performance

In recent years, network performance has emerged as a crucial aspect of governance networks, capturing the attention of scholars in the field of organisational and public administration. Existing research that has attempted to build a comprehensive theoretical framework for evaluating network performance, has however revealed notable difficulties in the assessment of success within governance networks (Boumans and Ferry, 2019; Provan and Kenis, 2008; Sørensen and Torfing, 2009; Voets et al., 2008). According to the literature, these challenges originate from the complex internal composition and organisational structure of these networks. Through mechanisms of coordination and collaboration, governance networks are capable of pooling resources and expertise necessary for tackling wicked problems. Nonetheless, the diverse configurations of governance networks make it difficult to understand which specific characteristics lead to enhanced network performance (Provan and Kenis, 2008; Sørensen and Torfing, 2009). Moreover, another obstacle to the assessment of network performance concerns the transformative socio-political and economic landscape. Wicked issues constantly evolve, and although collaboration is essential for effectively addressing these issues, rapid changes in the external environment can impede networks from achieving their collective goals and strategies (Sørensen and Torfing, 2009).

In order to evaluate if governance networks “*deliver what they are supposed to deliver*”, scholars have attempted to examine these challenges and complexities in order to identify which factors contribute to successful network outcomes (Boumans and Ferry, 2019; Provan and Kenis, 2008; Sørensen and Torfing, 2009; Voets et al., 2008). In Provan and Kenis’ (2008) theoretical model it is recognised that different network configurations can result in variable degrees of network effectiveness. In particular, the authors differentiated between highly decentralised governance (shared governance), highly brokered networks, and externally governed networks, with the aim of assessing which configuration is more efficient based on four key elements of networks: trust, size, network-level competencies, and goal consensus



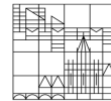
(ibid., 2008). In other models, the theoretical lens focuses on different dimensions of governance networks. For instance, Voets et al. (2008) conducted a multi-level analysis of the performance of policy networks. The authors investigated first the performance of individual network members, then the overall performance of the network, and lastly the perception of the community affected by the network-based policy solution. Their assessment of performance comprehensively took an organisational, democratic, and productivity angle (ibid., 2008).

Collaboration

Collaborative relationships are often described in the literature as key drivers of networks' innovative solutions (Hofstad and Torfing, 2015; Swan et al., 1999). Collaboration within governance networks can be conceptualised based on the level of cooperation, knowledge sharing, communication, and mutual learning happening among network actors. Several authors have pointed out the significance of tools and strategies deployed within interactive and networked forms of governance in processes involving information sharing, problem-solving and collective decision-making (Beers and Geerling-Eiff, 2014; Hartley et al., 2013). The application of these collaborative tools within multi-actor configurations enables the development of innovative strategies, establishing a robust alignment of network objectives with concrete collective actions (Hartley et al., 2013; Hofstad and Torfing, 2015). Challenges pertaining to the functioning of the network often arise due to significant internal diversity among its members. Collaboration plays a vital role in this regard. By fostering effective communication and cooperation, network actors will likely combine their diverse knowledge, values, capabilities, and resources, resulting in improved network performance (Head, 2008; Lasker et al., 2001; Turrini et al., 2010). Through such collaborative efforts, the network is capable of effectively mobilising the collective expertise and strengths of its members, leading to enhanced problem-solving, innovative approaches, and ultimately, positive network outcomes.

Integration, trust and consent

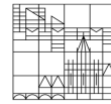
Relational dynamics within governance networks are often considered important determinant factors of performance. The current body of literature extensively focuses on the level of integration, trust, and goal consensus registered within governance networks



(Sørensen and Torfing, 2009; Turrini et al., 2010; Voets et al., 2008). The level of integration within a network is particularly relevant as it indicates the density and strength of interdependencies among network members (Voets et al., 2008). As argued by Provan and Kenis (2008), for instance, less integrated centralised networks, where interactions primarily develop between the chief organisation and individual members, are mostly high achieving. In this network configuration, not all actors need to have direct relationships with each other, and most of the managerial responsibilities are assigned to the lead organisation (Turrini et al., 2010). In turn, this reduces complexity within the network and enhances its performance (ibid., 2010). Conversely, Sørensen and Torfing (2009) propose that such network configuration, characterised by heterogeneous actors with weaker relationships, leads to more democratic interactions by involving a broader range of members. However, the chances of increasing complexity and potentially hindering effective performance are higher in these cases (ibid., 2009).

Another important relational aspect of governance networks, related to the level of internal connections, is trust among its members. Provan and Kenis (2008) suggest that within a shared and decentralised form of networks, all members interact with each other, consequently requiring higher levels of mutual trust to successfully achieve collective goals. In contrast, in a centralised network, members mainly engage individually with the lead organisation, implying lower levels of mutual trust for enhanced network performance (Cristofoli et al., 2014; Sørensen and Torfing, 2009). Other authors have emphasised trust as a key driver for network stability (Turrini et al., 2010). When individual actors trust each other, they are more likely to easily communicate, cooperate, align their goals, pool their individual knowledge and resources, and consequently succeed in achieving their objectives (Vangen and Huxham 2003).

Goal consensus is another factor influencing network performance. According to Voets et al. (2008), network performance is positively or negatively affected depending on the extent to which the consent of each member of the network is taken into consideration in decision-making and organisational processes. *“From a democratic perspective, the higher the number and importance of issues offered for consent to a wide range of members and stakeholders, the higher the performance on this criterion”* (Voets et al., 2008, p. 781). Similarly, Provan and



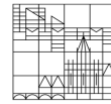
Kenis (2008) suggest that goal consensus is extremely vital in the case of shared governance networks. This is due to the presence of numerous and complex interconnections within the network, in which high levels of goal consensus are strongly necessary for effective goal attainment.

Network Size

The presence of a higher or lower number of actors within governance networks can significantly influence performance. According to Hasnain-Wynia et al. (2003), larger networks usually experience lower performance levels. Similarly, Provan and Kenis (2008) argue that the impact of network size is dependent upon the specific network configuration. In the context of shared and decentralised governance networks, the level of integration and legitimacy of the network may increase with a larger network size. However, excessively large networks can suffer from lower performance due to increased relational and coordination complexities. As a result, achieving optimal performance in shared governance networks necessitates a smaller number of involved actors (Provan and Kenis, 2008). Conversely, in centralised networks, the presence of a lead member can enhance success and performance under certain circumstances. For instance, when the network is moderate in terms of size, the lead organisation can effectively coordinate and manage the involved actors, directing their efforts towards achieving collective objectives (ibid., 2008; Siciliano et al., 2021). In contrast with the aforementioned models, Voets et al. (2008) argue that networks comprising a larger number of members are more likely to perform better due to the availability of additional resources, which increases the network's overall resilience in addressing complex challenges.

Goal attainment

Goal attainment also falls under the category of network performance predictors (Voets et al., 2008). The performance of a governance network is often assessed based on its ability to successfully achieve pre-determined objectives (ibid., 2008). However, according to the analysis presented by Voets et al. (2008), goal attainment does not exclusively depend on the network's achievements, but also on the sense of satisfaction individually perceived by its participants and their respective organisations (ibid., 2008). In a policy network, participants present their self-interests and organisational goals for consideration. This can, in turn,



contribute to generating internal conflicts, due to the increased heterogeneity of the network (ibid., 2008). Nonetheless, when these self-interests align with the network's objectives, participant satisfaction is likely to rise, potentially enhancing network performance (ibid., 2008).

Governance Networks and project implementation: the case of EU-funded projects

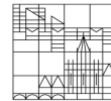
For long, policymakers have focused on developing political tools and programs with the aim of efficiently navigating through the political, social, and economic challenges that characterise our complex world. Decision-making and policy formulation are often at the core of the discourse on public governance. On the other hand, concrete arrangements resulting from the process of policy implementation are frequently overlooked, despite their pivotal role in effectively achieving policy objectives, values, and strategies (O'Toole Jr., 2000). Numerous studies have attempted to analyse mechanisms behind policy implementation, particularly focusing on which factors can contribute to its success and development (Brynard, 2009). In these studies, strategic policy projects are often mentioned as practical tools to bring policy outputs into effect (Shiferaw and Klakegg, 2012). Through such projects, local, regional, private, and public entities can access funding and gather other necessary resources to implement political programmes established at the government level (European Commission, n.d.).

It is important to note that successful project implementation requires high levels of collaboration, a goal that cannot be achieved only through the involvement of political entities (Brynard, 2009; O'Toole Jr., 2000). The realisation of the project, therefore, requires the participation of different stakeholders, who commit to managing the creation of an operational plan, relying on constant communication and mutual cooperation (Pinto and Slevin, 1987). Governance networks have emerged as a valid collaborative structure for the implementation of policy projects. In fact, as highlighted by scholars in the field of public policy and public administration, what makes governance networks suitable for the execution of projects and other political initiatives is the ability of their diverse members to strategically recognise socio-political issues and formulate a collaborative action plan (Sørensen and Torfing, 2017). In recent years, studies on this subject have started placing significant emphasis on the role of governance networks in the European governance system,

particularly on the effect that these collaborative configurations have on the functioning of the political landscape of the European Union. This academic focus reflects the recent transformation observed in the political dynamics of the EU, which marked an increasing active involvement of different governance networks in European political processes (Dedeurwaerdere, 2017; Torfing and Sørensen, 2014).

According to several scholars, the publication of the White Paper on Governance by the European Commission (2001) marked the start of this evolution in the European governance system, and in particular of the advent of networked governance (Bache, Flinders, and Goldsmith, 2004; Börzel and Heard-Lauréote, 2009; Torfing et al., 2012). The White Paper (European Commission, 2001) underscores the crucial role that governance networks play in enhancing cooperative and communicative practices within the European system. Collaborative mechanisms are viewed as essential for the development of processes happening at the Union level, such as that of European integration (ibid., 2001). Recognising their potential as effective mechanisms in the execution of EU policies and projects across various sectors, European institutions have started supporting and funding a growing number of networks with the aim of assisting the EU in achieving favourable political outcomes and effectively delivering services (Börzel and Heard-Lauréote, 2009; European Commission, 2001).

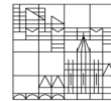
Börzel and Heard-Lauréote (2009) emphasise that the European Union has not transitioned to a system of “*governance by networks*”, but rather to one of “*governance in networks*”. This implies that these networks have not substituted intergovernmental and supranational roles in the processes of decision-making and policymaking. Instead, their goal is to internally mobilise resources, finances, and political support from both public and private actors to enhance the operational capacity of EU institutions (ibid., 2009). Thus, governance networks serve as instruments to achieve programs and projects through a coordinated form of governance in which the limitations associated with market-based and hierarchical configurations are strategically overcome (Entwistle et al., 2007; Papadopoulos, 2005). European governance networks are comprised of self-regulating actors involved in collective coordination agreements (Dedeurwaerdere, 2017). This self-regulatory nature perfectly represents the concept of *governance in networks* that defines the European governance



system. Through strong interdependencies, network members pool together the resources and tools necessary for collectively addressing the complex challenges confronting the European Union in the economic, political, and environmental fields (Kassim, 2007; Papadopoulos, 2005). In fact, by prioritising problem-solving and management approaches derived from collaborative contexts, governance networks are equipped with the capacity to navigate and resolve multifaceted problems, encompassing issues ranging from environmental degradation to financial crises (Sørensen, 2014).

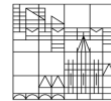
It is worth noting that a large number of studies on governance networks are mainly descriptive in nature. As a result, there is limited empirical evidence regarding the effective potential and success of governance networks in project implementation processes (Boumans and Ferry, 2019). Boumans and Ferry's (2019) research is among those that provide concrete and valuable evidence on the role of networks in the domain of public policy. In fact, their study examines in-depth the factors and characteristics of collaborative configurations that contribute to effective policy implementation outcomes (ibid., 2019). Through the employment of social network analysis, the authors were able to assess the effects of networked approaches on the implementation of EU regional policy instruments. The findings reveal that features such as robust relationships and a substantial number of network actors can be beneficial. The involvement of key actors is what is particularly crucial, given their ability to mitigate coordinative problems, such as inadequate knowledge exchange practices or administrative burdens (ibid., 2019).

Another relevant study examining the effects of governance networks on public governance is the one presented by Sørensen and Torfing (2009, 2017). In their analyses of networked governance, the authors predominantly focus on the concept of meta-governance, which elucidates inter-organisational mechanisms and provides further insights into governance studies (ibid., 2017). This concept was originally introduced by Jessop (1998) and Kooiman (1993) to explain the rules, norms, values, and processes that guide governance and prevent potential governance failures (Gjaltema et al., 2020). Starting from this theoretical foundation, the concept of meta-governance has been subsequently applied by scholars in various domains, encompassing crisis management, sustainable development, and ultimately the field of governance network studies (ibid., 2020; Stark, 2015; Torfing and Triantafyllou,



2016). Within this context, meta-governance refers to the notion of "*governance of governance*" or "*regulated self-regulation*", describing the processes through which the autonomous and interdependent actors within governance networks are regulated and administered in their network-based activities (Sørensen and Torfing, 2017; Torfing et al., 2012). The goal of meta-governance is to achieve effective policy outcomes by simultaneously preserving network operational characteristics, such as autonomy and communication, and ensuring the alignment of the network's objectives with public strategies (Sørensen and Torfing, 2017).

In their theoretical model, Sørensen and Torfing (2017) comprehensively illustrate the significance of innovation for "*enhancing efficiency, effectiveness, and democratic legitimacy through networking*" (Sørensen and Torfing, 2017, p.7). According to their analysis, governance networks can successfully achieve their collective goals through two main approaches (ibid., 2017). First, through the continuous improvement of coordinative relations, particularly by intensifying processes such as resource exchange, network integration, and goal alignment among network members. In fact, fostering stronger coordination and collaboration allows governance networks to enhance their ability to address complex challenges and optimise resource utilisation (ibid., 2017). The second approach concerns the adoption of collaborative innovation, meaning the development of an operational network composed of a diverse set of actors with extensive expertise and knowledge in the specific issue at stake (ibid., 2017). If there is a shared desire to jointly collaborate, the underlying diversity among network members can be easily overcome and even positively exploited to create innovative solutions to complex problems (ibid., 2017). When governance networks actively participate in the political process, by aligning public policies and services to their goals and aspirations, efficiency and legitimacy are more likely to be achieved (ibid., 2017). Meta-governance plays a pivotal role in this regard, as it guides governance networks towards the establishment of those strategies and actor configurations that allow to maximise positive network outcomes (ibid., 2017).



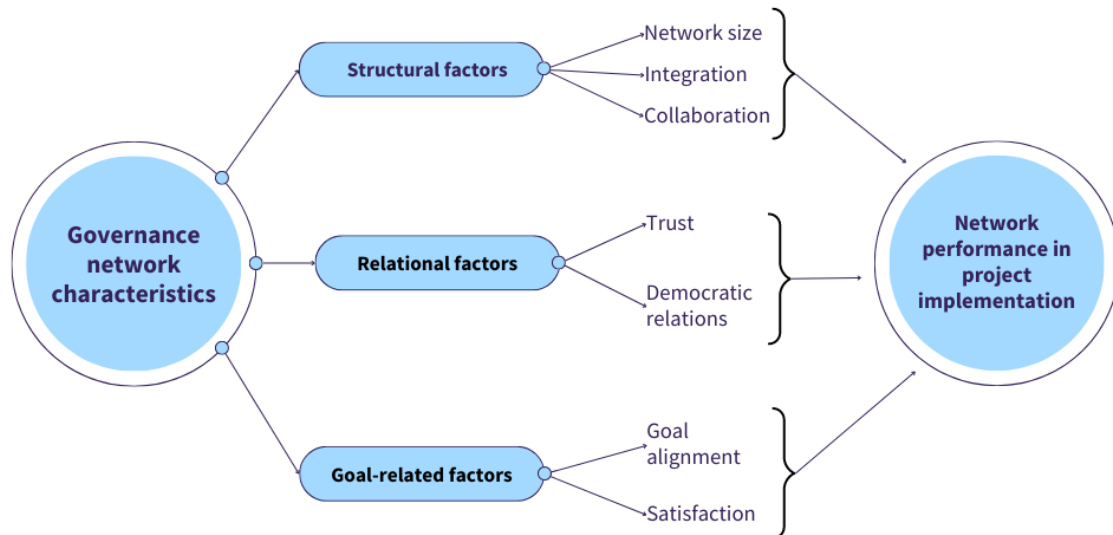
Theoretical framework

Eco-innovation and green entrepreneurship have been previously conceptualised as means to integrate environmental sustainability into business practices (Biondi and Iraldo, 2002; Cainelli et al., 2012; Chen et al., 2006; Díaz-García et al., 2015; Huggins, Johnston, and Steffenson, 2008; Triguero et al., 2013). Despite the devotion of numerous European initiatives towards the development of sustainable business strategies, growing socio-cultural pressures have pushed political institutions to increase and accelerate their action in the environmental sector to an even greater extent. Consequently, in response to these demands, the European political system has progressively witnessed the active involvement of governance networks, whose participation provides valuable support in the development of an adequate legislative framework targeted at addressing growing environmental issues. As shown in the literature, the active engagement of governance networks has the potential to significantly contribute to the successful execution of policies, projects and other political strategies set forth by policymakers (Brynard, 2009; O’Toole Jr., 2000; Sørensen and Torfing, 2017). However, empirical evidence establishing a direct correlation between governance networks and positive policy project implementation outcomes remains limited. This thesis aims to address this gap in the literature by using insights and concepts gained in the literature review to develop theoretical expectations regarding the suitability of governance networks in implementing environmental sustainability EU-funded projects targeted at SMEs.

Through existing literature, it was possible to obtain a valuable understanding of different types of governance networks, their role in the political arena, and the factors influencing their performance (Provan and Kenis, 2008; Siciliano et al., 2021; Sørensen and Torfing, 2009; Voets et al., 2008). This analysis focuses specifically on "*inter-organisational service delivery and policy implementation networks*" or "*goal-directed networks*", therefore networks whose goal is to address issues that particularly require collective action coming from the private and/or the public sectors (Kilduff and Tsai, 2003; Klijn, 2005; Provan and Kenis, 2008). Previous research (Cristofoli et al., 2014) has identified several characteristics of governance networks that can serve as predictors of performance. In this study, a subset of these characteristics will be employed to empirically assess the performance of governance networks in the adoption and management of key EU-funded projects in the field of eco-

innovation and environmental sustainability. More specifically, the theoretical model (Figure 1) aims to shed light on collaborative tools and network dynamics that ultimately have a positive or negative impact on the implementation of these projects.

Figure 1: Theoretical model

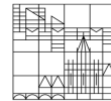


Building upon existing theoretical models of network performance assessment, different network-specific characteristics have been categorised into three main groups: structural characteristics, relational characteristics, and goal-related characteristics.

Structural factors

Network size. Several authors have highlighted the size of a network, conceptualised as the number of participants of the network, as a significant structural factor influencing the quality and complexity of governance network relations. As highlighted by Voets et al. (2008), a higher number of network participants is usually linked with a broader pool of resources, knowledge, expertise, and competencies. As a result, better and more diverse knowledge-sharing and coordination processes are enabled (ibid., 2008; Provan and Kenis, 2008). Based on this premise, it is expected that larger networks will perform better in the project implementation process due to their increased capacity to mobilise diverse resources and share best practices among a larger number of network actors.

Collaboration levels. The extent of relationships characterised by high levels of cooperation, knowledge-sharing, communication and mutual learning has been conceptualised as a

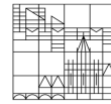


measure of network collaboration (Turrini et al., 2010). By engaging in collaborative interactions, governance networks are able to bring forward innovative solutions, services, and ideas, as well as develop joint approaches to addressing wicked issues (Sørensen and Torfing, 2017). Facilitating this is the effective communication and cooperation among the single organisations participating in the network, which enables them to exchange information, mutually acquire new knowledge and skills, and ultimately engage in a culture of continuous learning and improvement. With this understanding, it is hypothesised that governance networks characterised by high levels of collaboration will demonstrate enhanced performance in achieving policy and project implementation objectives, given the ability of network members to cooperate and communicate in an adequate manner (Pinto and Slevin, 1987).

Integration. As aforementioned, integration concerns the density and strength of interdependencies midst different network members (Voets et al., 2008). Depending on the specific configuration of the network, members may or may not engage in interactive and collaborative relationships. Consequently, different degrees of integration may be recorded within the network (Provan and Kenis, 2008; Sørensen and Torfing, 2009; Voets et al., 2008). The literature presents contrasting viewpoints on how the level of integration influences network performance. According to some scholars (Provan and Kenis, 2008; Milward and Provan, 1998; Siciliano et al., 2021), centralised networks characterised by the presence of fewer linkages among members are generally more effective, due to the reduced complexity of their collaborative efforts. Other scholars (Sørensen and Torfing, 2009), instead, emphasise that networks involving actors who know each other and engage in higher levels of coordination and alignment of their activities tend to perform better. Building upon the latter perspective, it is hypothesised that more integrated networks perform better because they can engage in more collaborative interactions and overcome diversity, and therefore are more effective in achieving their project implementation and service delivery objectives.

Relational factors

Trust. The level of trust has been recognised to be a critical factor influencing the level of collaboration within networks, and consequently, their overall performance (Turrini et al., 2010; Vangen and Huxham 2003). When network members trust each other, they are more

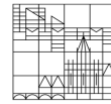


prone to actively cooperate, coordinate their activities, engage in open communication, and share knowledge, skills, and resources, thus fostering a highly collaborative governance network (ibid., 2008; Cristofoli et al., 2014). Proceeding from the standpoint that greater collaboration leads to improved performance, it is hypothesised that governance networks whose members trust each other are more likely to eventually enrich their project implementation efforts.

Democratic relations. Another relevant relational factor impacting network performance is the degree of democracy in the activities of governance networks (Sørensen and Torfing, 2009; Voets et al., 2008). In the literature, scholars have strongly highlighted the importance of consent and democratic processes within networks. According to Voets et al. (2008), through the consistent employment of a diverse range of consensus mechanisms, each member's opinion and viewpoint are proven to hold relevance in shaping the overall actions of the network. As a result of this inclusive process, the network is expected to operate more efficiently (Voets et al., 2008). Another important aspect contributing to making governance networks more democratic is the level of participation and engagement of the community directly affected by the political strategy that is under application (O'Toole JR., 2000; Turrini et al., 2010). The inclusion of these external actors enhances the network's democratic nature, as it receives greater support to carry on its activities (Turrini et al., 2010). However, according to some scholars, excessive external involvement can potentially hinder collaborative interactions among network members, consequently diminishing its performance (Hasnain-Wynia et al. 2003). Taking both assumptions into account, it is hypothesised that moderate participation of externally affected actors and inclusive decision-making processes are necessary to successfully achieve the network's project implementation plans.

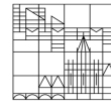
Goal-related factors

Goal alignment. Networks are highly heterogeneous structures, therefore composed of actors possessing diverse individual interests and objectives (Voets et al., 2008). Goal alignment ensures that all participants in the governance network work together coherently and collaboratively towards a common objective, despite internal diversities (Head, 2008). This characteristic of the network is essential because it promotes mutual understanding of the



overarching goals and creates a strong sense of commitment among network members, ensuring the opportunity to overcome issues correlated to heterogeneity (ibid, 2008; Huxham and Vangen 2000; Voets et al., 2008). Within this context of alignment, the network becomes better equipped to navigate complex challenges, make informed decisions, and implement coordinated and collaborative actions (Voets et al., 2008). In fact, when all participants support a common goal, it becomes easier to pool resources, allocate responsibilities, and leverage complementary strengths. Gaining a shared understanding of the socio-political problem and of project opportunities becomes immediately easier when clear means of communication and of problem-solving strategies are established among network members. This is especially the case when there is an urgent need to adjust network services and practices to potential external changes (Sørensen and Torfing, 2009). Starting from these assumptions, it is expected that governance networks actively involved in project implementation will perform better when each member develops a common understanding and agreement on network objectives.

Satisfaction: Goal attainment within governance networks has been extensively highlighted in the literature as a significant factor contributing to network performance (Huxham and Vangen, 2000; Koppenjan and Klijn, 2004; Voets et al., 2008). Voets et al. (2008) argue that the ability of a governance network to achieve its intended goals depends on several external factors, such as the degree of satisfaction of network members, as well as of the affected community, with the network's operations (Koppenjan and Klijn, 2004). Satisfaction is achieved when each member perceives that their self-interests are taken into consideration in the collective actions of the network. In such situations, their commitment and motivation to actively contribute towards the network's goals are strongly enhanced (Voets et al., 2008). Similarly, positive public perception increases the network's legitimacy, trust, and support, further strengthening its ability to achieve desired outcomes (ibid., 2008). When satisfaction is perceived both internally and externally, then the network is more likely to collaborate effectively towards the achievement of its goals (ibid., 2008). Striking a balance between the interests of the network members and the specific demands and interests of affected actors is essential for governance networks to enhance their effectiveness in delivering positive outcomes and consequently maximising their performance. A network with higher levels of satisfaction is therefore expected to engage in more collaborative efforts to fulfil its



outcomes, demonstrating to perform more successfully in the project implementation process.

Operationalisation

After having conceptualised the main variables, it is necessary to operationalise them through the use of indicators deductively acquired from existing theories on governance networks. By employing these indicators, it is possible to explain how existing knowledge on this topic can be utilised to uncover a deeper understanding of a specific situation, in this case, the performance of networks in the execution of environmental sustainability projects.

Dependent variable

The dependent variable in this study is the performance of governance networks in the implementation of EU-funded projects within the sector of eco-innovation, precisely tailored for SMEs. In order to assess this variable, network actors' self-perception is employed as an indicator. The subject of this study is centred on gathering direct insights into how members perceive the influence of the network's internal characteristics (independent variables) on its performance in the process of project implementation. More accurately, the research delves into members' self-perception regarding the quality of the realisation of the network's deliverables. As this research focuses on analysing eco-innovation projects, these deliverables may include the adoption of energy-efficient measures, the establishment of sustainable production processes, the adoption of specific green technologies, and the implementation of recycling and waste management methods, among others.

While the employment of this indicator allows to capture an exhausting assessment of the implications of network characteristics, it is worth noting that respondents' self-perception may be affected by a subjectivity bias, possibly conveying an inaccurate representation of network performance. In particular, interviewees may provide a more favourable perception of the network's activities, therefore risking overvaluing the achievement of objectives. This bias is accounted for in the research, first through the formulation of highly specific questions about network configuration, and second through the complete anonymisation of respondents and their respective organisations. This approach should ensure that respondents focus on objectively discussing the network's current activities in the project



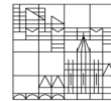
implementation process. The investigation of these responses will subsequently be interpreted in view of the theoretical groundwork of governance networks, thus guaranteeing an unbiased understanding of network performance.

Independent variables

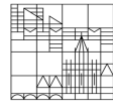
The independent variables in this study are network-specific characteristics that have been previously conceptualised as contributing factors to network performance. To measure and assess these variables, various indicators will be considered. Table 2 provides a summary of the relevant indicators being utilised for each independent variable, along with a specification of the concept being examined and the data collection method being put into practice.

Table 2: Independent variables' indicators

| Concept | Indicators |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size (independent variable 1) | <ul style="list-style-type: none"> - Number of organisations or actors participating in the network; - Geographic dispersion of participating organisations. |
| Collaboration level (independent variable 2) | <ul style="list-style-type: none"> - Degree of collaborative activities: knowledge- and resource sharing (best practices, research findings, innovative ideas, skills and expertise); involvement in joint activities; - Availability and usage of communication channels within the network, where members can exchange information; - Cooperation mechanisms: the presence of coordination structures, regular coordination updates, or the establishment of joint decision-making processes. |



| | |
|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Integration (independent variable 3)</p> | <ul style="list-style-type: none"> - Frequency and density of interactions/relationships (number of formal meetings, events, workshops, training sessions) (do all actors know each other within the network?). |
| <p>Trust (independent variable 3)</p> | <ul style="list-style-type: none"> - Willingness of participants to rely on each other; - Confidence in the ability of other actors to achieve the network's objectives; - Degree of mutual support and assistance among network members; - Ability of actors to resolve disagreements in a collaborative manner. |
| <p>Democratic relations (independent variable 4)</p> | <ul style="list-style-type: none"> - Level of employment of consensus building tools (processes that allow members to express their viewpoints, perspectives and ideas); - Level of transparency in decision-making processes; - Inclusive representation (extent to which network members perspectives are taken into consideration in the decision-making process); - Level of participation and inclusion of affected actors in network activities (i.e., SMEs). |
| <p>Goal alignment (independent variable 5)</p> | <ul style="list-style-type: none"> - Shared vision and objectives among network members; |



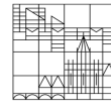
| | |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <ul style="list-style-type: none">- Mutual understanding and clarity of policy or problem at hand;- Degree of alignment in terms of approaches, activities and solutions built to achieve common objectives; |
| Satisfaction (independent variable 6) | <ul style="list-style-type: none">- Actors' satisfaction with network activities (perceived responsiveness to each of the network participant's self-interest);- Community level perceptions (the extent to which the community affected by the network activities supports the network); |

Methodology

Case selection

This research seeks to comprehensively investigate the performance of governance networks in implementing projects aimed at supporting SMEs' adoption of eco-innovation. The study's primary objective is to understand the influence of specific network characteristics on governance network performance in project implementation. Based on the existing literature on network performance, hypotheses and indicators have been developed to examine the underlying mechanisms behind the relationships between these variables. The design of this research is therefore of explanatory nature. With the aim of developing generalisable results on network performance in project implementation, multiple governance networks established to execute EU-funded projects targeted at assisting SMEs' advancement of environmental strategies were selected. In the European Union, several funds are allocated to projects with the aim of supporting policy development and policy implementation, particularly in the sector of environmental sustainability (European Commission, n.d.). As aforementioned in the literature review, the realisation and management of such projects reach a high level of complexity and therefore require established forms of collaboration (Brynard, 2009; O'Toole Jr., 2000). This makes governance networks an appropriate collaborative and cooperative structure for the implementation of EU-funded projects. By considering a broader range of networks and collecting insights from different network representatives, this research project aims to capture patterns in their performance, thus obtaining a comprehensive understanding of the issue at stake.

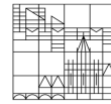
Purposive sampling was used to select the networks based on criteria such as geographical location and areas of specialisation. Given the functional presence of each network across various European countries, this will enable a methodical analysis of potential national variations in the approaches applied by governance networks in enhancing green innovation. In the selection process, networks specialised in different areas of environmental sustainability, such as circularity and energy efficiency, were prioritised. This approach will provide an advantageous variety of perspectives on the role and effectiveness of governance



networks in promoting eco-innovation among SMEs across the European Union, consequentially enriching the potential generalisability of the research findings.

The chosen networks play a significant role as key actors in the transformation of the European political landscape on environmental sustainability. They are involved in the implementation of projects funded by the European Commission under the Horizon 2020 and Horizon Europe programs, which were established with the ultimate goal of creating solutions tailored to addressing complex societal and environmental challenges (European Commission, n.d.). Through these projects, each network, which consists of a diverse set of organisations, research institutes and private partners across multiple European countries, aims at offering support to SMEs through the provision of knowledge, tools, and specific services of green innovation (European Commission, n.d.). The fundamental goal of these projects is that of contributing to the development of European policies in the field of circular economy, energy efficiency, bio-economy, sustainable development, etc. It is worth noting that as these networks are involved in the execution of EU-funded projects, adherence to specific rules is a preliminary condition for the continuation of project execution. This implies that it is mandatory for them to sign a consortium agreement and a grant agreement specifying rights and obligations among the partners and with the European Commission (European Commission, 2020). In these agreements, rules and requirements about monitoring, deadlines, deliverables, tasks, cooperation structure, and budget are clearly listed, in order to guide the partners in the process of project execution and project supervision (ibid., 2020).

While these networks share similar objectives and fall under similar European funding umbrellas, this does not imply a lack of differences in terms of internal collaborative mechanisms, partner composition, and *modus operandi*. Hence, studying similarities and differences in the characteristics and internal mechanisms of the selected cases can contribute to offering valuable insights and interpretations into how the European multi-level governance system involving networks operates in the implementation of environmental policy projects (Creswell, 2007). As some of the networks are still in the process of project implementation, it would not be accurate to analyse the actual effects of project implementation on SMEs' achievement of eco-innovation. For this reason, this research will



focus simply on analysing the influence that network mechanisms exert on their performance in the execution of projects tailored to SMEs' eco-innovation. Even though the networks serve as suitable cases for gaining a comprehensive understanding of network performance in project implementation, there is still a margin for selection bias. As networks that operate for the execution of EU-funded projects, a prerequisite for obtaining funds from the European Commission is the timely and efficient achievement of deliverables, which is under supervision throughout the whole implementation process. This indicates that these networks are most likely to be successful in their activities, given their high dependency on the EU financial budget. This bias is accounted for in the research through the selection of a diverse set of networks, meaning that probably not all of them will employ their resources, knowledge, and collaborative mechanisms in the same way, allowing to get a better understanding of what specifically affects network performance.

Data collection method

Despite the availability in the literature of helpful frameworks for assessing network performance, the tangible measurement of such performance remains rather unexplored. This research seeks to fill this gap in the literature, by attempting to measure observable network characteristics through the employment of qualitative means of data collection. Particularly, interviews prove to be a highly suitable method to acquire a thorough understanding of network characteristics and draw conclusions regarding performance in project implementation activities. Information regarding factors like trust levels among network members, goal alignment and quality of collaborative interactions can only be gathered through insights provided by active actors involved in the networks. Furthermore, interviews empower respondents to provide highly detailed information, allowing to capture an exhausting assessment of network performance that may be difficult to acquire through quantitative data alone. Therefore, for the purpose of this thesis project, semi-structured interviews conducted with the project coordinators of each network are employed as the primary data collection method. Furthermore, alongside semi-structured interviews, internal network documents and reports are examined as complementary sources of data, in particular, to gather information regarding the number of network members, the geographical scope of the project, and employed means of communication. The adoption of

secondary data contributes to a more ample and nuanced understanding of the work of governance networks, potentially strengthening the main insights obtained from the interviews.

Semi-structured interviews represent a flexible data collection method. Through this approach, it is possible to obtain baseline results from a theoretically developed interview guide (Bryman, 2016). Moreover, its flexible nature allows for the development of additional questions arising directly during the interviews and following the flow of the responses provided by the interviewees (ibid., 2016). The incorporation of unprompted questions offers opportunities to acquire more in-depth insights that can considerably enrich the research project. Nonetheless, proceeding with the interview guide and maintaining a comparable flow of questions throughout all interviews guarantees that the interviewer remains aligned with the research plan and collects all the necessary information to stipulate a comprehensive answer to the research question (ibid., 2016).

Interviewing one project coordinator per selected network has a particular advantage in terms of given responses. In fact, coordinators are members involved in the management of the project implementation process, and in particular, they are responsible for supervising the work carried out internally by the members. Coordinators have a relatively complete overview of the quality of collaborative relationships, consensus-building mechanisms, and participation levels, and therefore, their perspectives are particularly useful for assessing network performance. Having only project coordinators as interviewees, however, represents a limitation of this study. A broader understanding of network dynamics could have been acquired if actors other than coordinators would have also been interviewed. Furthermore, the same rationale applies to the potential of interviews conducted with SMEs directly affected by the networks' projects, as they would have provided an external view of the networks' capability in providing support to them. Nevertheless, the insights acquired from these interviews have facilitated the production of generalisable statements on network performance, thus supporting the examination of the theoretical framework.

The interview questions were developed following the above-outlined hypotheses. This means that for each of the network characteristics that were included in the theoretical

framework, a set of questions was developed to understand specifically how each characteristic unfolds in the networks, and how this affects network performance in project implementation (see Annex 1). By asking about specificities regarding each factor, respondents were able to provide a realistic description of the networks, even exposing criticism towards the internal configuration and the approach utilised by the network in project implementation. Using this approach was certainly beneficial in moderating respondents' bias in favour of the promotion of the networks.

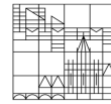
The process of data gathering was followed by full transcription, coding and content analysis. Through a process of line-by-line coding the data obtained from the interview transcripts was initially examined and assigned to both deductive and inductive codes (Chandra and Shang, 2019). This method allows for identifying patterns in the responses and organising concepts and ideas in specific categories (ibid., 2019). Similar to the development of interview questions, deductive codes were determined following the line of the theoretical assumptions on the influence of network characteristics on network performance (ibid., 2019). As the main purpose of their employment is to test the research hypotheses, most of the analysis will be based on these codes. Concerning inductive codes, those are exploratory in nature, as they originate from off-topic responses provided by the respondents, and not from the predetermined theoretical framework (ibid., 2019). Subsequently from initial coding, axial coding was conducted to find connections between the previously identified themes and patterns (Scott and Medaugh, 2017). This approach enables to capture with more clarity the nature of the data (see Annex 2) (ibid., 2017). Attitudes, experiences, perspectives and values of respondents towards the topic at stake were recognised, allowing to generate meaningful conclusions.

Findings

In the above-outlined theoretical framework, a set of expectations were derived from the existing literature on governance networks. Specifically, the study examined different factors, categorised as structural, relational, and goal-related, and hypothesised them to be key predictors of network performance in the process of implementation of specific European policy-oriented projects. In order to comprehensively assess these factors, a set of indicators illustrated in the methodological section of this research was employed. In this section, the results of the assessment of each indicator will be presented with the aim to obtain a complete overview of the implications of network-related factors.

Size

Network size was measured by looking first at the number of actors involved, and second at the geographical scope of the project. In order to avoid biases and create more generalisable results, networks with a diverse number of actors involved and with a bigger or smaller geographical scope were selected. The networks ranged from nine to thirty organisations involved, and all of them included partners coming from different EU countries, depending on the scope of the project. The majority of the respondents perceived networks involving too many actors to be highly difficult to manage from the point of view of collaboration. Most interviewees highlighted that the greatest advantage of having a big consortium is the enhanced level of expertise, knowledge, and resources, which often come from a variety of different sectors, ranging from think tanks to research institutes and private entities. However, managing the exchange of knowledge and resources can be extremely difficult among such a large set of people and can potentially pose greater challenges to the workings of the network. As highlighted by respondent F, smaller networks allow for stronger relationships among the partners and facilitate the overcoming of differences that can exist among network members, especially at the nascent stage of the network, when members still do not know each other to the fullest. Smaller networks are therefore great, as collaboration and cooperation management are facilitated. However, hindering factors are not missing in these cases either. In fact, as highlighted by respondent D, the benefit of increased collaboration coming from a smaller consortium can be diminished when the collective objectives and goals go far beyond the actual capacity of the network, as necessary expertise



and resources are lacking to successfully cover the scope of the project. According to the interviewee, one suitable approach to overcoming this organisational issue is having a highly diverse composition of the network, which allows to grasp as much knowledge and information as possible.

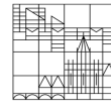
Respondent D: *“What I think is a great side of our consortium is the combination of different kinds of partners, which helps when the ratio between efforts and network capabilities is not perfect. We are composed of think tanks and organisations with a lot of knowledge of the legislative framework. In this way, working with policies is much clearer [...]. Then we have national energy agencies. They are aware of the gaps in energy policy implementation and can communicate with companies and so on. And then we have organisations that are dealing with companies on the ground. These are more technical kind of members”.*

Another interesting finding relates to the geographical scope of the project. In fact, when making initial decisions regarding the number of actors to involve in the network, the geographical scope of the project has to be taken into consideration. While having a large consortium can indeed pose organisational and management challenges, including as many partners as possible from different countries allows for a more meaningful impact. A network that scores high in terms of country-related diversities has a greater chance of possessing a diverse and more complete range of expertise, knowledge, and skills.

Respondent B: *“If we had aimed for a smaller consortium, that would have directly affected the geographical scope of the project, meaning that we would have had to exclude, for instance, Romania or Slovakia or Poland. So, I think it's very important to have included national representatives from each country”.*

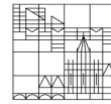
Collaboration

The level of collaboration is the most important contributing factor to governance networks' performance since networks' activities mostly rely on the intense exchange of best practices, knowledge, and information among a diverse set of actors (Beers and Geerling-Eiff, 2014; Hartley et al., 2013; Hofstad and Torfing, 2015; Swan et al., 1999). Collaboration, therefore, rests on the quality and structure of cooperative relationships among network members, as well as on the usage of efficient communication channels, which can facilitate information



and knowledge-sharing (Head, 2008; Lasker et al., 2001; Turrini et al., 2010). Interesting findings were revealed in relation to the degree and quality of network actors' collaboration. First of all, it is important to bear in mind that for the selected network there is an obligation to execute grant agreements and consortium agreements. As a precondition to obtaining funds, the network must adhere to the rights and obligations indicated in these grants, among which is included a cooperative structure (European Commission, 2020). Each respondent provided a clear overview of their network's collaboration structure, as detailed in their grant agreement. Similarities and differences were found in each of the selected networks. Depending on the scope and the general objectives of the project, the network organises itself on different levels. As confirmed by all interviewees, the project's tasks are assigned to specific work packages (WP). This means that the network operates on each work package, with the aim of sequentially achieving its assigned deliverables. If the activities of the current work package are successful, then the project can progress to the next work package. Through this structure, work is therefore diluted to only a selected amount of network members, which actively collaborate within their working group. A second level of collaboration is established to ensure that implementation happens smoothly during the whole project. At this level, project coordinators and work package leaders collaborate and communicate strategically to manage the operational tasks of each work package. This guarantees complete supervision of the project execution. The last level of collaboration that was identified within each network is that of the General Assembly, which includes all members of the network. The General Assembly plays an important role in the decision-making progress, which will be later analysed in this section of the research.

While these three levels of collaboration have been confirmed by all respondents, the interviews also revealed that in some projects other forms of collaboration exist. For instance, two respondents referred multiple times to the operations of an Advisory Board and of Steering Committees, which are responsible for providing opinions and recommendations to the coordinators and the WP leaders on the project implementation. Another collaboration arrangement brought forward by two respondents (Respondent E and G) was that of technological clusters. As projects can be highly technical and involve partners from different technical fields, achieving the defined objectives has been revealed to be more effective when experts and people belonging to a similar technical field are clustered together in the same



operational group. For instance, respondent E highlighted the importance of establishing these clusters for the facilitation of knowledge and resource exchange processes among technological suppliers and affected SMEs. The joint efforts of the cluster members resulted in the organisation of a contact point for SMEs, allowing them to seek external support in the development and adoption of eco-innovative practices and tools.

Respondent G: *“We have three industrial clusters that play the role of SME representatives. I think that they are doing a great job in the sense that they are always bringing the point of view of manufacturing SMEs into the network. With our member universities, we tend to talk about very big ideas and big theories, which are very valuable and very interesting. But the clusters push us to go into more specific ideas, more straightforward services and ideas. This is beneficial for project implementation”.*

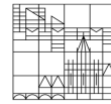
These findings, therefore, suggest that collaboration is highly concentrated among a pre-determined set of network members, depending on the deliverable that is set to be accomplished. While this may imply a lack of general collaboration in the whole consortium, the respondents revealed that know-how exchange, information sharing, and cooperation go beyond the borders of the working groups. In fact, work package meetings are not closed to other members of the network, which can participate by providing their expertise, knowledge, or recommendations. Another important aspect that confirms collaboration in the whole consortium is that constant updates are sent to all the members, whether they're active or not at that moment, regarding the activities happening for each work package. An overarching finding regarding the quality of this collaborative structure emerged from all respondents. Layered collaboration has been found to be highly suitable for efficient project implementation. This is because, according to the interviewees, dividing the tasks allows to fully focus on each deliverable, one at a time, while also preventing overloading members with high amounts of work.

Respondent D: *“Monthly meetings and support programs done by coordinators meant that all partners were constantly in touch, even if they were coming from different countries. When one of the partners had an implementation issue, the others would support them by exchanging ideas and best practices. Their dynamics and their tasks were like copy/paste [...]”.*

Respondent F: *“The exchange of good practices and the work that has been done showed that everyone had something to take, but also something to give to others”*.

As pointed out by respondent C, thanks to the layered collaborative structure of the network it was possible to successfully achieve the main project goal: the development of circular economy business models. This profitable collaboration led to the implementation of a holistic support system tailored for SMEs, consisting of several assistance tools, ranging from knowledge dissemination, to access to funding and guidelines on current legislation in the sector of circularity. Through the support services provided during the project activities, SMEs were effectively guided through the verification of their eco-friendly technologies and through the assessment of their business sustainability impact. Particularly, this fruitful network collaboration resulted in meaningful success stories of project implementation. Some examples indicated by the respondent are the involvement of SMEs in the revitalisation of degraded urban environments or the contribution of SMEs to the recovery and repurposing of construction waste.

Findings regarding the degree of collaboration are particularly interesting. Some respondents pointed out how the level of collaboration usually changes based on the needs of the partners. When more know-how and skills are needed, especially when deadlines for achieving deliverables approach, cooperation and communication among members usually intensify. This has been perceived to positively contribute to project implementation. On the contrary, as highlighted by most respondents, a lack of cooperation and engagement on the side of a few members, which is sometimes inevitable, can have immediate effects on project implementation, especially if there is a strong relation of dependency between network members. In fact, a lack of collaboration has been shown to cause delays in the activity of each working group, with the consequence of creating difficulties in terms of the delivery of project outputs. Partner replacement and restructuring of the collaborative configuration have been commonly used by coordinators and project managers as solutions to non-cooperation. This has meant strengthening and improving collaborative relationships among active members, while also successfully preserving complementarity, therefore maintaining different degrees of knowledge and expertise within the network.



Respondent D: *“Some of the people left the network at some key points of the work. This brought us to a point where we really needed to come back to the original coordination level”*.

Despite being necessary, these processes of internal restructuring of cooperation do not lack difficulties, as they can decelerate the network’s activities. Employing a new collaborative configuration requires additional time and energy to re-establish the level of knowledge transfer and exchange of best practices that existed before restructuring.

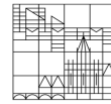
Respondent D: *“The work relies a lot on the competencies, seriousness and the way our partners operate”*.

Integration

Frequency and types of relationships among network members were used as indicators to measure the level of integration within the selected networks. Regarding the frequency of network meetings, all respondents indicated an extensive number of formal and informal interactions among network members. All actors participating in the network are acquainted with one another and engage in collaborative relationships, suggesting a strong sense of integration within the network. High levels of integration were considered by all respondents as crucial for network performance. Additionally, previous records of collaboration among certain partners, for example in earlier projects or in other activities, were cited as advantageous for smoother and more effective project execution.

Respondent C: *“If there is a good record of previous collaboration, so if partners knew each other before, that is a certain advantage when it comes to delivering objectives efficiently”*.

The interviewees further disclosed significant differences in the intensity of these relationships and their overall impact on networks’ performance. These differences reflect the multi-layered collaborative structure of the network itself, meaning that network members engage in interactions both horizontally and vertically. Despite the potential indication of a centralised form of network, the respondents emphasised that the strongest and most frequent relationships happen primarily among working groups, suggesting a decentralised network configuration. When a working package is active, its assigned members regularly meet on a weekly or bi-weekly basis, depending on their needs. Furthermore, in order to update all other non-active working groups, formal meetings involving all members



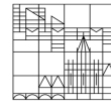
of the network are organised on a monthly basis. As pointed out by Respondents E and F, strong relationships and cohesion among WP members are essential for the smooth achievement of the project objectives. This is because most of the activities rely on the efforts of all working groups, suggesting that insufficiently strong relationships among them could hinder collaboration and ultimately project implementation.

Respondent F: *"I think that in our network there was cohesion among all the partners. [...]. The INTERREG Europe program in the initial phase includes many meetings where we work together and exchange good practices. This methodology facilitated building knowledge-exchange practices and mutual trust"*.

As an example, in one of the selected networks, robust cohesion between work packages, particularly between regional centres and business associations, strongly facilitated knowledge exchange. As a result of this resilient collaboration, SMEs were successfully supported in receiving the necessary knowledge for developing circular economy business practices, leading to a higher degree of eco-innovation (Organisation F, n.d.).

On the other hand, vertical relationships, which involve mainly WP members and coordinators, are also important but occur to a lesser extent. Once coordinators and WP leaders have successfully reviewed the WP activities and checked that deliverables have been completed in an efficient and timely manner, further interactions between them are needed to a lesser extent. One of the respondents even believed such vertical interactions as unnecessary administrative burdens for the network. Other interviewees, instead, recognised the importance of these management positions, especially their role in preserving the required level of collaboration within the network, and their valuable expertise in conflict and risk management. Vertical relationships guarantee a smoother and more efficient process of project implementation.

Respondent C: *"It's very important to have a good relationship between the work package leaders and the coordinator. I think we've done this very well. Yeah, it's natural that you develop a relationship and, in the end, you're like a family"*.



Trust

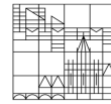
The importance of trust was universally recognised by the respondents as a key element for successful network activities. When there is a strong sense of trust among network members, collaboration in the form of cooperation and communication becomes highly effective. An interesting aspect emphasised by one of the respondents is the significance of trust in relation to the highly diverse composition of these networks. Since network members come from different backgrounds, with diverse knowledge and skill sets, effortless communication and support are considered essential. Achieving this requires, however, the ability of network actors to trust and rely on each other.

Respondent E: *“Step one is definitely trust. I think what matters is communication and communication style, because you have different people from very different operational sectors”*.

Trust was also found to be linked with successful and timely execution of project’s deliverables. In some of the selected networks, respondents recorded cases of failure to meet deadlines by some working groups or shifts in network personnel due to partners leaving or new members joining the network. According to the interviewees, when actors fail to meet deadlines, it provokes a lack of trust among members, especially among coordinators. Similarly, when there is a variation in personnel, attitudes among partners and towards the project often change, and with this trust levels as well. A consequence of both scenarios, which was highlighted by the respondents, is significant delays in project implementation.

Respondent C: *“It was very difficult, especially when the focus went all on that one partner that was not delivering on time, instead of covering the whole project. I would say it's very exhausting for the whole consortium”*.

As stress and fear often take over the whole network in these situations, rebuilding trust and mutual confidence among members is considered crucial for the continuation of network activities. Some of the respondents confirmed how this process of trust-building allowed them to reach the original level of collaboration and get back on track with the completion of the deliverables.



A lack of trust could also provoke conflicts and tensions among members. While rebuilding trust has been proven by respondents to be a highly effective solution to this problem and has avoided potential conflicts within the network, two stand-alone cases were mentioned in which specific factors contributed to a loss of trust and difficulty to restore it. In the first case, a country-related factor played an important role. According to the respondent, actors coming from Northern European countries have a strong sense of responsibility and respect towards deadlines, while Southern European countries are generally more flexible in terms of implementation. From a point of view of vertical reliance, the coordinator found it more challenging to trust the latter. In the second case, lack of sensitivity among partners was considered by the respondent as a factor contributing to loss of trust. When partners revealed selfish attitudes and diminished the work of other members, tension was highly noticeable within the network environment. In these situations, the role of coordinators and WP leaders is crucial, as they are the ones responsible to solve potential conflicts and restore collaboration among partners.

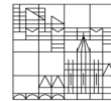
Respondent C: *“As a coordinator, you have to inform the consortium and protect the members from such issues in order to continue with the rest of the activities”*.

Respondent D: *“In the end, cooperation is between the people, not between the organisations”*.

Democratic relations

Voting is the prevalent tool within networks to gather consensus in a decision-making process. All respondents emphasised the importance of a transparent and democratic decision-making process for a successful network. Particularly, in their view inclusivity is what makes these processes democratic to the fullest. When members are given the chance to express their opinion through voting or other tools, the overall level of activity within the network is found to increase. This is particularly the case when the decision-making process is highly interactive since it allows working groups to stay fully involved in the implementation of the project.

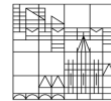
Respondent C: *“In our consortium meetings [...] work package leaders were encouraged to do it [decision-making] as interactive as possible. It was not just about the presentation, not just about reporting, but it was about involving members in interactive activities”*.



Differences regarding consensus mechanisms were found in relation to the involvement of different actors in the decision process. According to most respondents, everyday decisions are taken in a joint, transparent, and democratic manner within each working group, therefore without involving the whole consortium. This was described as strategically beneficial for the network, since specific decisions may regard technical aspects that lay outside of the expertise of certain members, making it impractical to seek collective evaluations. The presence of a grant agreement and a consortium agreement ensures that transparency and adherence to the project's goals are respected, despite the flexibility inscribed in this targeted decision-making process. In fact, coordinators are responsible to check that these decisions are taken with respect to the values of the collective network. This approach allows to optimise the efforts of each WP through the efficient pooling of the knowledge and expertise of specific network members.

Most respondents also referred to decisions regarding the overall management of the projects, such as budget allocations or contract amendments. These decisions are taken in two distinct contexts: either by management boards, which include coordinators and representatives of each member organisation, after prior discussions with network members during project meetings; or during so-called general assemblies, comprising all members of the network at all levels. From all interviews, one particular case stood out for its opposite approach to decision-making. It is important to note that the network at stake (Organisation A) is characterised by an extremely high number of members. While inclusivity and democracy were pointed out as necessary for the overall performance of the network, in this consortium it was revealed by the respondent that most decisions are taken by the coordinator and the WP leaders, leaving a limited number of decisions to the rest of the members. The respondent also provided an example of how in certain situations where it was time to make a decision, this approach created tensions within the network and slowed down its activities, potentially hindering project implementation. This finding confirms the importance of an inclusive decision-making process for an efficient and well-performing network.

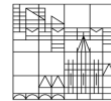
The degree of inclusivity of networks' decision-making processes is not the only indicator used for measuring the degree of democratic nature of governance networks. In the interviews, the level of participation of affected communities in the network's activities was also



analysed. As these projects were targeted at supporting SMEs to achieve green entrepreneurship, a certain degree of involvement of small companies was registered in all selected projects. In some cases, SMEs were not only project targets, but they also participated in the network as consolidated members. In other circumstances, SMEs were mainly involved in project activities, such as seminars, conferences, and workshops. Giving SMEs the opportunity to express their opinion on the development of the projects, allowed network members to obtain an external perspective that enriched the project as a whole, while also helping SMEs achieve their eco-innovative strategies. The inclusion of a group of SMEs in one of the selected networks played a pivotal role in establishing eco-innovative business models, consequently leading to an exponential growth of these companies and an increase in their level of competitiveness across Europe.

Respondent A: *“When we were writing the project there were only two or three people in that company. I knew them and they said to me that for them it was very important to get in the network. They worked and kept working on recovering batteries of electric cars and providing a second life for other purposes, such as buildings. [...] At the end of the project, they [the SME] now have 30 or 40 people after five years and they are still growing, getting funding and getting involved in strategic partnerships”.*

Reports on network meetings and events provide a clear overview of the benefits brought forward by the inclusion of SMEs in these activities. During these meetings, SMEs provided a clear overview of their available resources, identified potential barriers, and touched upon their progress towards environmental sustainability. Through this information, the efficiency of project implementation is enhanced, as it allows for a comprehensive understanding of where to prioritise efforts and to identify means to foster a more effective exchange of good practices and know-how among members. For instance, internal reports conducted by two of the interviewed organisations revealed that through the direct participation of SMEs, it was possible to formulate valuable recommendations on the significance of knowledge and technology transfer concerning circular best practices (Organisation F, n.d.). In particular, it was found that such collaborative mechanisms are essential to support policy development and to directly help companies and SMEs to defeat the issue of a lack of a culture of eco-innovation and environmental sustainability (Organisation C, 2021; Organisation F, n.d.).



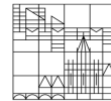
Respondent C: *“An important output or solution of the project was the online platform, which we originally wanted to be a little bit different in the sense that it's not just an online market tool, but also a tool that regional, local and governmental policy developers, as well as the industry, can use to obtain all the information that is needed to them”.*

Respondent D: *“The third stream is about working with the national authorities. In this case, we first did an evaluation of the national policies, in the Member States, in order to see what the gaps for the implementation of audits in large companies and in SMEs are. Then we developed a guideline with recommendations on how to improve the legislative framework so as to make it beneficial for the companies”.*

Goal alignment

As confirmed by the respondents, frequent communication and cooperation among partners is considered fundamental for building collaboration, trust, and strong relationships among network members. Additionally, high levels of interactions within the network facilitate mutual understanding of common problems and of the collaborative tools that need to be employed to jointly achieve the network's objectives. According to the respondents, it is crucial that network members express a remarkable sense of commitment towards the network activities. This usually translates into high levels of engagement and their willingness to pool resources and know-how in a complementary manner. A sense of collectivity is generally perceived by the respondents as a facilitating factor in the stable implementation of projects. Contrarily, the absence of resilience and political commitment among all network members is believed to lead to complications. In particular, when network activities are not yet entirely mature, any external changes may potentially threaten the realisation of the project.

Respondent A: *“The main challenge that we have found in the project is the lack of maturity in some of the network's actions. There was not a strong political commitment to do this. [...]. We started to prepare the proposal years before (we got the project on the third attempt), so many of the actions that we are developing now were planned maybe in 2015, so almost 10 years ago. In this time the political and economic situation has changed from one day to another. [...]. In those pilots in which they have much more mature activities and they have a*

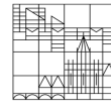


stronger political commitment, the partners have been more resilient in reacting to unforeseen issues”.

In addition to the element of mutual involvement and dedication to the network activities, another interesting characteristic related to goal alignment was highlighted by all respondents. Each member of the network is also committed to pursuing their individual purposes, external to the network’s objectives. This is reflected by the strong heterogeneity that characterises these networks, comprising organisations, research institutes, and private companies, each with different interests. As pointed out by respondent E, in the process of project implementation, network members are mainly focused on the overall functioning of the project itself. Contributing to this is the external pressure coming from the European Commission and the Advisory Board because a precondition to receiving funds for projects is delivering output efficiently. Nonetheless, network members are also incentivised to continue with their individual progress. While this may imply a certain degree of misalignment between collective goals and members’ individual objectives, the respondents affirmed this is acceptable as long as individual growth does not hinder the continuation of the network’s collective activities. Most of these networks are formed from the knowledge exchange and resource maximisation that results from the merging of different actors. This suggests that focusing on individual improvement and bringing the results of this improvement in the network can be highly beneficial, as long as the network and its projects are impacted positively. For instance, in one of the selected networks, it was possible to achieve positive results in terms of the creation of a collective bio-economy plan, primarily due to the expertise and knowledge in this sector that each member had individually developed. Subsequently, the exchange of resources and information from the more experienced to the less experienced members in the field of bio-economy allowed for attaining a well-balanced form of cooperation, which proved necessary for the realisation of the project.

Respondent E: *“Interests and goals should not be antagonistic towards each other. They should be nicely tangled or linked on an everyday basis. [...] You're a team player, first of all, so you want to make sure that both ways work [...]”.*

To better understand the importance of goal alignment and general internal balance, it is worth analysing instances of conflicts of interest that were reported by three respondents. In



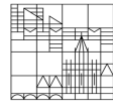
these specific networks, concerns were raised regarding the inability of some members to deliver objectives effectively, as well as regarding members' detachment from the network. Additionally, the respondents reported that on several occasions, WP members preferred prioritising the planning of future projects, with the risk of influencing the direction of the network towards their self-interest rather than maintaining the focus on the achievement of collective goals. The respondents recognised these situations as a challenge for project implementation, as they perceived disrupted harmony and productivity within the collaborative relationships. The role of coordinators was highly emphasised as valuable for avoiding potential conflicts of interest and for maintaining the network on track towards successful project execution.

Satisfaction

Regarding the levels of satisfaction with the project implementation activities carried out by the different networks, a consistent pattern emerged in the respondents' answers. Pertaining to network members' satisfaction, the respondents stated that when the self-interests of each member are properly considered, a positive climate is created, contributing to nurturing mutual collaboration. Consistent achievement of goals serves as an incentive, motivating the network to persist in its cooperative efforts. Through monitoring activities, each member is constantly aware of which gaps there are in the project and which strengths need to be emphasised. Such clarity enhances members' satisfaction and further motivates them to positively exploit project outputs. Equally important is the level of satisfaction perceived by external stakeholders affected by the project. The interviews revealed that the impact of the network's activities was promptly perceived by targeted SMEs. When the realisation of deliverables is stable and fruitful, SMEs have more confidence in the collaborative abilities of the network. Consequently, this incentivises working groups to sustain their productive results.

Respondent C: *"It is actually important to look at what is happening, and how the impact is growing and breaking"*.

The significance of positive public perception regarding network performance is demonstrated by the decision of many of the involved SMEs to take part in future



collaborative activities with the networks. As highlighted by respondent D, the implementation of energy efficiency measures contributed to making targeted SMEs more sustainable from an environmental and social point of view, prompting them to take part in a future continuation of the same project. Similar dynamics unfolded within another selected network, where the support given to the SMEs was perceived as concrete, thus leading several companies to continue advancing the partnership.

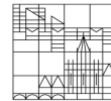
Respondent E: *“Through the project, we provided financial support and access to experts and knowledge. Thanks to this, the companies we supported practically did something in terms of circularity. [...]. And the partners were happy with the results. Some of them will even continue the work with the companies that they supported. The links were definitely strong”*.

Discussion

In this section, the previously reported findings will be interpreted in light of the theoretical expectations, with the aim of answering the research question that guided this thesis. In particular, implications from the results will be drawn to determine which characteristics and mechanisms contribute to shaping the performance of governance networks in their activities of eco-innovation project implementation.

Findings on the size of the network revealed that the number of involved participants matters for smooth project implementation. While it was anticipated that a larger network would perform better due to increased resource mobilisation and sharing of best practices happening among a wider number of actors, the empirical evidence was not able to provide a solid confirmation to this theoretical expectation. From the results of the interviews, it becomes evident that when there is an excessive number of participants, difficulties can arise regarding the management of internal cooperation and communication. Lack of sufficient knowledge, resources, and expertise for the maximisation of the network's activities is, instead, a weakness typical of smaller consortia. These findings, therefore, suggest that optimal network performance is achieved when the number of network members allows for efficient collaboration and robust communication to develop. Network operational capabilities are further enhanced when a balance between network size and the presence of a combination of a diverse set of actors is accomplished, given the resulting incorporation of different sets of skills and know-how. A wider geographical representation is also a key element influencing network performance, as it allows to amplify the project's impact.

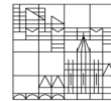
Concerning the level of collaboration, the empirical evidence was able to confirm the hypothesis that governance networks characterised by high levels of collaboration will demonstrate greater performance in project implementation activities, owing to their ability to cooperate and communicate in an enhanced and more adequate manner (Pinto and Slevin, 1987). The findings, however, revealed interesting nuances of collaboration that help to better understand how collaborative relationships can contribute to network performance in the project implementation process. Firstly, the multi-layered collaboration structure that is typical of these networks allows members to focus on the achievement of one objective at a



time, further enabling efficient exchange of resources and facilitating communication. As a result of this, network members feel less overloaded and perform better in the execution of project deliverables. Additionally, the findings reported that collaboration levels change depending on the overall needs of the working groups. Given the presence of strong relations of dependency among members of the network, the achievement of objectives is dictated by the need for the different actors to work in a highly cooperative manner. This suggests that higher levels of collaboration are beneficial and contribute to enhanced network performance. This is also proven by the fact that a lack of robust collaborative relations leads to delays in the implementation process. As a result, difficulties to accomplish project deliverables increase, requiring a process of restructuring original collaboration levels.

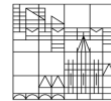
When looking at integration levels within the network, the findings revealed the presence of both vertical and horizontal relationships among all members of the network. Horizontal relationships have been shown to be more robust and more frequent. This is due to the fact that most network activities are carried out by working groups, which operate at the same level but for different deliverables. Vertical relationships involving management roles happen to a lesser extent but are considered necessary for the management of collaboration as well as for the supervision of the achievement of project outputs. Strong vertical and horizontal relationships happening simultaneously are the result of a wide range of interdependencies, and they are a sign of internal network cohesion. As a result of this cohesion, collaboration and mutual engagement are enhanced, ultimately facilitating project implementation, as described earlier in the findings. From this, it is possible to conclude that a highly integrated network, characterised by balanced relationships among partners on a two-level playing field, is an indication of a well-performing network in its activity of project implementation. This confirms the theoretical expectations regarding the implications of integration on network performance.

The findings also supported the hypothesis regarding trust. More specifically, trust among network members was found to be crucial in facilitating cooperation and improving communication channels among partners. This finding indicates that from stronger trust levels, collaboration is amplified, therefore enriching policy implementation efforts within the network. Another finding supporting this correlation between trust and better network



performance concerns the loss of trust that occurs when members fail to meet project deadlines, or when there is a change in personnel within the network. In fact, worse network performance is mostly reported in these cases, given the unavoidable delays in project implementation or due to the need for rebuilding original trust levels following the establishment of a new collaborative structure. Another indication of loss of trust is the lack of reliability and sensitivity among members, which often results in internal tensions. In these cases, networks are also seen to underperform, due to the need to put all the focus on conflict management, instead of bringing forward project implementation.

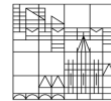
Given the highly complex relational configuration of governance networks, it may appear logical to delegate decision-making powers to the network's management roles. In fact, this could be justified as a way of ensuring comprehensive supervision of the network's activities. Contrary to this expectation, the findings reported that a network where all members are included in the decision-making processes performs better in the overall implementation of projects and other collective activities. This empirically confirms the previously theorised hypothesis that inclusivity leads to higher network performance. Through a democratic and transparent approach to consensus-building and decision-making, the network is in fact more capable of achieving its pre-determined goals. This is mainly linked to the fact that a stronger feeling of inclusivity among network members can increase their willingness to positively engage and commit to the achievement of project deliverables. Furthermore, by giving the possibility to all members to voice their opinions through the process of voting, potential feelings of exclusion can be mitigated, with the consequence of reducing the likelihood of conflict within the network. While inclusivity could be interpreted as the involvement of all active members in decision processes, the findings revealed that within governance networks, most decisions are taken by each individual working group, wherein the approach of inclusivity is still carefully respected. As previously reported, decision-making processes happening within each working group lead to more practical choices regarding each deliverable, because other network members do not possess the necessary expertise and knowledge to take a decision in this regard. This approach is suitable as it makes the process of achieving deliverables much quicker and smoother. Only when such a targeted process remains democratic, by involving all members of the WP, transparent, by allowing the possibility for external members to voice their opinion on the decisions of each WP, and when



the decisions respect the overall goals of the project, then the network performs in a successful manner.

Along with inclusivity, it was expected that moderate participation of externally affected actors, in this case, SMEs, is necessary to achieve successful project implementation goals. Moderate participation was hypothesised to be more efficient, as it would have avoided hindering collaboration within the network itself. However, the findings uncovered contrasting information. In fact, in some cases SMEs were external actors who participated sporadically in workshops and conferences, providing valuable insights and recommendations to the network. In others, SMEs were both project targets and network members, therefore fully involved in the project operations of the network. In both cases, external and internal participation of SMEs was recorded to be highly beneficial and not a hindering factor to collaboration. In particular, the involvement of SMEs has proved to improve their perception of network activities, with the consequence of increasing network legitimacy. This suggests that a network with high levels of participation of affected actors has positive network performance outcomes, discrediting theoretical expectations on this.

When looking at the degree of internal alignment of goals among network members, theoretical expectations were confirmed by the displayed results. A strong sense of commitment to project implementation can be interpreted as the ability of network members to develop a shared understanding of common issues and to jointly find solutions to these challenges through the alignment of individual goals. This common sense of commitment motivates network members to pool resources efficiently through a process of collaboration, unavoidably leading to the successful achievement of project implementation. While this finding confirms the overall positive effect of goal alignment on network performance, the evidence also revealed how collective efforts towards project implementation are not the only variable at stake. Collectivity does not destroy individuality. In fact, network members will always have the need for achieving their individual interests, external to network objectives, as a form of self-growth. From this evidence, it can be derived that, in order to not affect network performance, a balance between self-interests and the network's interests must be achieved. When there is consistent clarity regarding the incorporation of individual interests into the network's activities, members' satisfaction immediately increases, fostering

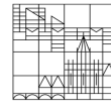


the establishment of a positive operating climate. This subsequently enhances the willingness of members to jointly collaborate within the network. Performance is therefore maximised when network members contemporarily pursue their external interests, as this can bring additional resources to the network, and preserve the collaborative efforts resulting from the collective commitment towards the goals of the network.

Recommendations

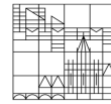
In this section, recommendations will be presented regarding which mechanisms can be potentially adjusted to increase the performance of networks in the process of project implementation. Empirical evidence has shown that at the basis of a well-performing network lies solid collaboration between all network members. The absence of general consensus among network members regarding the optimal minimum level of collaboration can significantly challenge the development of a cohesive and functional environment, ultimately hindering the ability to effectively achieve project targets. For this reason, it is important that networks strive to promote constant and robust cooperation and communication. This can be achieved through the management of specific network mechanisms:

- **Multi-level collaboration.** Given the distinctive characteristic of networks' multi-level collaboration, more consideration must be given to network size. In order to avoid hindering collaboration, the network must necessarily be composed of a manageable number of members. At the same time, it is crucial to maintain a certain degree of diversity in terms of membership composition, in order to maximise the exchange of different resources, knowledge and skills within the network.
- **First, trust. Then, collaboration.** At the heart of solid collaborative relations lies mutual agreement on the work pattern that must be followed to effectively execute project deliverables. To ensure that members stay uniformly motivated to achieve collective objectives, the network should first and foremost focus on building a strong sense of internal trust. By doing so, not only is members' willingness to jointly work towards project goals enhanced, but cohesive and robust relationships among them are strongly cultivated.
- **The significance of managerial roles.** An important aspect contributing to improved network performance involves strengthening the role of coordinators. This research



has revealed that some members often regard managerial roles with scepticism, particularly due to the fact that most of the operations of the project are handled by working groups alone. Despite this feeling, a certain degree of coordination and supervision must be preserved to ensure that each task is executed accurately. A balance between the managerial and functional levels can be cultivated by following two steps. Firstly, by making sure to mitigate the administrative burden on employees, thus making the implementation process smoother and more effective. Secondly, it is crucial to ensure that members' freedom of thought is constantly upheld by employing an inclusive decision-making process, even when taking decisions concerning the management of the network itself.

- **External engagement.** The maintenance of an appropriate level of engagement from the actors affected by the project is of incredible significance. Especially in support projects such as those centred around environmental sustainability, the involvement of SMEs is particularly crucial. In fact, this engagement allows for obtaining all the necessary information to amplify the usefulness and functionality of the project. Furthermore, increasing SMEs' sense of representation, e.g. during conference activities or study groups, enhances their support for the network and its project activities in particular.
- **Harmonisation with local, national, and supranational priorities.** As projects falling under the EU funding umbrella, it is critical that networks strive to keep their activities on the correct wavelength, and thus in line with the EU's political priorities. Equally vital is the harmonisation with the regional and national policies of the Member States where the project is implemented. For example, the network must ensure that the project does not undermine parallel national initiatives; rather it must push for establishing important synergies with such plans. By doing so, the project maximises its effects, while also substantially contributing to the development of European, national, and local policies.

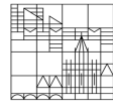


Limitations

This study has some limitations which could be addressed by future researchers. First, this research has a sample size with a population of $N = 7$ selected cases. Given the high priority that policymakers have put in supporting SMEs to become environmentally sustainable, a vast number of governance networks have been established with the aim of bringing forward policy projects in this sector. There was, therefore, a possibility to select an even broader number of networks, however, the scope of this research did not allow for this. By expanding the empirical base, it would have been possible to strengthen the internal validity of this research, leading to more conclusive and reliable findings regarding the performance of the chosen networks. Limitations may also concern the external validity of this research. Having selected only governance networks involved in the implementation of eco-innovation projects suggests that the generalisation of the results of this study is in fact restricted to only this operational context. This limits potential future assessments of the performance of governance networks involved in different sectors.

Next, it is worth considering that some of the selected governance networks are currently still involved in the process of project implementation. This aspect represented a challenge during the analysis of network performance, as its evaluation was restricted until a specific stage of project implementation. Because of project incompleteness, in fact, it was possible to gather information about the internal dynamics and characteristics of the network only during the initial phases of the project, inevitably missing out on the long-term effects of network performance on project outcomes. Nevertheless, meaningful insights regarding the topic were provided thanks to an extensive examination of the collected data.

Potentially contributing to limiting a comprehensive assessment of the mechanisms influencing network performance may be the selection of networks that are subjected to predetermined operational conditions set by the European Commission. As discussed earlier in the research, these prerequisites motivate networks to maximise their potential in project implementation. As a result, to gain a comprehensive understanding of network performance future researchers should focus on analysing networks not falling under the umbrella of EU policy programs.



Furthermore, there are some limitations regarding the employed methodology for this research. First, despite having an equal representation of types of participants, interviewing only project coordinators may have contributed to limiting the generalisability of the results. In fact, interviewing a more diverse set of network actors could have provided valuable information regarding collaboration, trust levels or integration, thus increasing the validity of the acquired data and contributing to a more complete interpretation and analysis of network performance. Moreover, as previously addressed in the study, the choice of a sole subjective measurement of performance, meaning respondents' self-perception, represents a challenge. Subjectivity may, in fact, be the cause of biased responses from the interviewees, who may have been inclined to provide a desirable overview of network performance.

Conclusion

This research attempted to investigate the effect of network-specific characteristics on network performance in the process of project implementation. Drawing on existing literature, this thesis project was built with the aim of conducting a comprehensive analysis of the role played by governance networks in the implementation of projects targeted at strengthening SMEs' green entrepreneurship. The theoretical framework at the base of this research was developed by combining the work proposed by several authors regarding the mechanisms that lay behind governance network performance. This research went a step further, by attempting to analyse such performance in multi-level governance systems, in particular in the context of EU policy development. Several theoretical expectations were derived from this framework, with the purpose of delving into which structural, relational and goal-oriented factors influence the performance of those networks established to execute EU-funded projects.

The data extrapolated from the semi-structured interviews revealed remarkable findings regarding the criticality of elements such as collaboration level, network size, inclusivity, and goal alignment. While it was initially assumed that a larger network would have achieved network goals more successfully, the empirical evidence proved that greater network performance is recorded mainly in structures where the number of involved actors is manageable and where the diversity of resources, skills and knowledge is well-preserved. The findings further underscored the pivotal role played by collaboration as a driver for heightened network performance. Behind stable and robust collaborative networks, there is a fundamental interplay of different elements. Proficient resource exchange, cooperation and communication are only possible when cohesive relationships among trustable and reliable network actors exist. Moreover, collaborative efforts are fostered when a common understanding of the network's goals is achieved, as well as when members' individual interests are fully taken into account in network development.

Beyond the significance of collaboration, another contributing factor to network performance that was explored in this study is the need to make decision-making processes as inclusive as possible, where all members have the chance to express their viewpoints. The evidence

demonstrated that a way of maximising the role of consensus-building processes is avoiding overloading the network, by deciding that most decisions are divided among working groups, while also carefully obeying the principle of inclusivity. Concerning the participation of project targets, the case of SMEs' involvement in network activities through the provision of internal insights revealed the critical importance of external engagement. In fact, this aspect not only facilitates the process of project implementation but also makes the network more legitimate, disregarding theoretical expectations that unnecessary external involvement hinders collaboration.

Governance networks involved in the implementation of eco-innovative projects have therefore been revealed as mostly well-performing. Their ability to maximise their internal collaborative dynamics has allowed them to successfully influence European policy development and pave the way towards a more environmentally sustainable business sector in the European Union. Exploiting project outputs and continually optimising their operational efficiency stand as fundamental objectives for these networks. Specifically, from the enhancement of these efforts, it is possible to assess the impacts that these projects can have across the European socio-political landscape.

Despite its limitations, this study serves as a contribution to understanding the role of governance networks in the political process. The research showcases the substantial relevance of multi-actor arrangements but does not go further in attempting to understand the implications for SMEs in a more in-depth manner. Therefore, future research is necessary to better explore this issue and its societal and political consequences.

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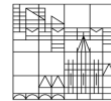
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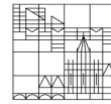
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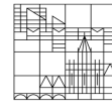
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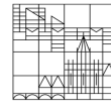
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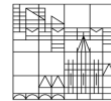
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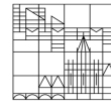
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Annexes

Annex 1: Interview guide

Network Size:

- Can you provide an overview of the network involved in the EU project? How many organisations are part of the network?
- Would you say that the size of the network impacts its ability to mobilize resources and share best practices among network actors (so impact its ability to collaborate)?
 - A smaller or a larger network could have been more beneficial for the performance of the network (it would have allowed to achieve objectives in an easier manner)?

Collaboration:

- How would you describe the level of collaboration among the partners during the project implementation process (sharing of best practices, research findings, innovative ideas, skills/expertise)?
 - Is collaboration high or low?
 - Is there a specific coordination structure?
 - What is the frequency of collaborative relationships?
- Have any specific cooperation mechanisms or practices been used during the project?
- How have meetings been coordinated?
 - If yes, how frequently have these happened between the partners?
 - Would you say that they have contributed to achieving the objectives of the project?

Integration:

- To what extent do all partners know each other? Are relationships strong with all partners or they are mainly happening between each one and you?
 - Do most relationships happen between the lead partner or between all of the partners?
 - What does the role of the lead partner actually entail?
- In what ways has diversity been overcome?
- How has the level of integration influenced the implementation of the project?
 - Would you say a more or less integrated network could have improved project implementation?

Trust:

- Would you say members trust each other and are willing to rely on each other?
 - If yes, would you say trust has facilitated collaboration among the partners?



- Have the partners demonstrated mutual support and assistance in their collaborative efforts?
- Have disagreements hindered collaboration?
 - If yes, are there any instances where more trust has played a significant role in the workings of the network?
- How has trust affected project implementation?

Participation and Decision-making:

- Can you describe the decision-making/consensus process within the network (which tools do you use to collect ideas)?
 - How inclusive is it in terms of the representation of different ideas and perspectives of the partners?
 - How transparent is it?
- To what extent have externally affected actors participated in the activities of the network?
 - Would you say they have contributed to an effective implementation of the project?

Goal Alignment:

- To what extent is there mutual understanding and clarity among members about the policy or problem being addressed? Or would you say each partner values self-interests the most?
 - Has this led also to more collaboration?
 - Has goal alignment led to better performance as a whole?

Goal Attainment:

- How satisfied would you say the partners are with the activities and achievements of the network?
- Can you describe the perception of the community affected by your activities?

Annex 2: Coding tree

Green boxes: Deductive codes

Blue boxes: Inductive codes

