

# **Epistemic Arbitrage and ‘Good Ideas’ in European Sustainable Finance: A Study of the Professional Networks behind Policy Change**



**CBS**

COPENHAGEN  
BUSINESS SCHOOL

HANDELSHØJSKOLEN

Master's Thesis

Copenhagen Business School

MSc. International Business and Politics

Annika Stenström

Student number: 124141

15 May 2020

Supervisor: Leonard Seabrooke

Number of pages: 79

Number of characters incl. spaces: 180 173

## Abstract

How to support sustainable development and mitigate climate change is key global challenge today. Following the global urgency of taking action, attention has been directed towards the potential of the finance sector to contribute to this development.

By examining the empirical case of EU Sustainable Finance expert, this thesis sets out to study how sustainable finance is governed and shaped at the transnational level. The research question is as follows: *How do expert networks make authoritative claims in setting the Sustainable Finance agenda?* In order to do so, this thesis takes a mixed methods approach, utilising a combination of social network analysis, sequence analysis and qualitative interviews.

Drawing on the IPE scholarship, the sociology of professions, and social network theory, this study shows how expert networks make authoritative claims in setting the Sustainable Finance agenda by drawing on expertise knowledge and engaging in epistemic arbitrage. In agreement with recent literature, this thesis shows that governance of EU Sustainable Finance takes place through a two-level network, where professionals and organisations compete and cooperate for issue control.

Moreover, this thesis shows that, as a result of growing demand for expertise knowledge in sustainable finance, a sustainable finance profession is emerging at the transnational level. I show that sustainable finance activism has undergone a professionalisation, where traditional NGO activism on the outside partly is replaced by corporate reformism on the inside. In conclusion, this thesis contributes to the IPE and sociology of professions literature by expanding the understanding of the role professional networks, epistemic arbitrage and 'Good ideas' in European Sustainable Finance and how expert networks can make authoritative claims in setting the Sustainable Finance agenda.

## Table of Contents

1. Introduction.....	1
2. Theory.....	3
2.1 Theories on transnational governance.....	4
2.2 Relational perspectives on transnational governance .....	6
2.3 Networks, Ecologies and Professionals in transnational governance .....	10
2.4 Knowledge and Expertise in transnational governance .....	13
2.5 Theoretical framework.....	15
3. The empirical case: EU Sustainable Finance.....	16
3.1 EU Sustainable Finance .....	17
4. Methodology .....	19
4.1 Research design: a mixed methods approach.....	19
4.2 Social network analysis.....	21
4.3 Sequence analysis.....	25
4.4 Interviews .....	28
5. Analysis.....	33
5.1 The Sustainable Finance network at EU level .....	33
5.1.1 Professional strategies for issue control .....	40
5.1.2 Organizational strategies for issue control .....	44
5.2 Career sequences .....	49
5.3 Interviews .....	56
5.3.1 Conceptions of sustainable finance.....	57
5.3.2 EU Sustainable Finance .....	60
5.3.3 Expertise and knowledge in EU expert groups.....	63
5.3.4 Influencing the EU Sustainable Finance agenda.....	66
5.3.5 Cooperation and competition over the sustainable finance agenda.....	69
6. Discussion .....	71
6.1 Expert Networks in transnational governance.....	71
6.2 Knowledge and Expertise in EU Sustainable Finance governance .....	73
6.3 The emergence of a sustainable finance profession? .....	75
7. Conclusion .....	77
Bibliography.....	80

## List of Abbreviations

<b>2° ii</b>	2 degrees investing initiative
<b>AFME</b>	Association for Financial Markets in Europe
<b>CBI</b>	Climate Bonds Initiative
<b>CISL</b>	Cambridge Institute for sustainability Leadership
<b>CMU</b>	Capital Markets Union
<b>DG FISMA</b>	Directorate-General for Financial Stability, Financial Services and Capital Markets Union
<b>EBA</b>	European Banking Authority
<b>ECB</b>	European Central Bank
<b>ECF</b>	The European Climate Foundation
<b>EEA</b>	European Environment Agency
<b>EIB</b>	European Investment Bank
<b>EIOPA</b>	European Insurance and Occupational Pensions Authority
<b>ESAs</b>	European Supervisory Authorities
<b>ESMA</b>	European Securities and Markets Authority
<b>ESRB</b>	European Systemic Risk Board
<b>EU</b>	European Union
<b>EUROSIF</b>	European Social Investment Forum
<b>French SIF</b>	Forum pour l'Investissement Responsable
<b>FSB</b>	Financial Stability Board
<b>G20</b>	Group of 20
<b>GBP</b>	Green Bond Principles
<b>GPSF</b>	Global Professional Services Firm
<b>HLEG</b>	High-level expert group
<b>I4CE</b>	The Institute for Climate Economics
<b>ICMA</b>	International capital markets association
<b>IGO</b>	Inter-Governmental Organization
<b>INGO</b>	International Non-Governmental Organization
<b>IPE</b>	International Political Economy
<b>LSE</b>	London School of Economics
<b>NGFS</b>	Network for Greening the Financial sector
<b>NGO</b>	Non-Governmental Organization
<b>NIB</b>	Nordic Investment Bank
<b>OECD</b>	The Organisation for Economic Co-operation and Development
<b>OM</b>	Optimal Matching
<b>OxBridge</b>	University of Oxford and Cambridge University
<b>PPP</b>	Public Private Partnership
<b>PRI</b>	Principles for Responsible Investments
<b>SA</b>	Sequence Analysis
<b>SAFE</b>	Sustainable Architecture for Finance in Europe University of Frankfurt
<b>SIFs</b>	Sustainable Investment Forums
<b>SNA</b>	Social Network Analysis
<b>TCFD</b>	The Task Force on Climate-related Financial Disclosures
<b>TEG</b>	Technical expert group
<b>UKSIF</b>	United Kingdom Social Investment Forum
<b>UN</b>	United Nations
<b>UNEP</b>	United Nations Environment Program
<b>UNEP-FI</b>	United Nations Environment Program Finance Initiative
<b>WWF</b>	World Wide Fund for Nature

## 1. Introduction

How to support sustainable development and mitigate climate change is a global concern today, not only for governments, but also for the international business community. In recent years, increasing attention has been directed towards the potential of the finance sector to contribute to this development. Following this, the European Commission has committed to three climate and energy targets to reach by 2030 and to make the EU climate neutral by 2050. This does, however, require between 175-290 billion euro in additional yearly investments.

In 2016, the European Commission announced a new focus on sustainable finance, by establishing a High-level Expert Group (HLEG) on Sustainable Finance. The HLEG consisted of 20 experts from business, academia, and civil society, with the mandate to create a roadmap of EU Sustainable Finance. In 2018, the HLEG presented its final report, setting out recommendations for the EU on Sustainable Finance. The report makes out the basis of the EU Action Plan on Sustainable Finance, adopted by the European Commission in March 2018. The Action Plan was followed by the appointment of a Technical Expert Group (TEG) on Sustainable Finance in 2018. The TEG consisted of 35 members from academia, business, civil society, and the finance sector, with the mandate to set out technical recommendations on the implementation of the Action Plan. They have since presented their recommendations on the EU Taxonomy, the EU Green Bond Standard, EU Climate Benchmarks, Corporate Disclosure of Climate-related information. The final reports from the TEG was presented and discussed at a (digital) stakeholder conference in March 2020.

As a result of this development, and the global urgency of the issue, the topic of sustainability governance has grown in importance in International Political Economy (hereafter IPE) scholarship. However, sustainable finance governance remains a gap in the literature. Instead, much of the emerging research on sustainable finance has focused on identifying the 'business case' (Thistlethwaite, 2014). This thesis aims to fill this gap by studying how sustainable finance is governed and shaped at the EU level, focusing on the case of the EU Sustainable Finance. The research question is as following:

*How do expert networks make authoritative claims in setting the Sustainable Finance agenda?*

In order to answer the research question, this thesis draws on the IPE scholarship, the sociology of professions, and social network theory to examine the empirical case of the EU Sustainable Finance agenda. In this understanding, transnational governance is conceived as a two-level network consisting of issue professionals and organizations who compete and cooperate for issue control (Seabrooke & Henriksen 2017). Key to this theoretical framework is the conception of expertise knowledge (Abbott 1988, Eyal 2013). The assumption is that authoritative claims to the EU Sustainable Finance agenda can be made by the actors who are seen as knowledgeable and as 'having good ideas' in the sustainable finance network.

This is done by applying a mixed-methods approach, consisting of social network analysis, sequence analysis and qualitative interviews. First, this study conducts a social network analysis to identify the EU sustainable finance network. This is done by analysing the network of professionals and organizations in and around the EU High-level expert group and Technical expert group on Sustainable Finance. Through the social network analysis, the most influential actors are identified by measuring centrality in the network. This further informs the following sequence analysis. The sequence analysis traces the career sequences of the most influential professionals of the EU Sustainable Finance network to expose the underpinning structures of the expert network. Finally, eight in-depth qualitative interviews are conducted with professionals in the EU Sustainable Finance network. The interviews complement the social network and sequence analysis, ultimately leading to more in-depth insights on how expert networks operate at EU level.

The thesis contributes an increased understanding of which actors can make authoritative claims to the EU Sustainable Finance agenda. This is key in order to understand the power dynamics at play in the governance of sustainable finance. The thesis shows that governance of EU Sustainable Finance takes place through a two-level network, where issue professionals and organisations compete and cooperate for issue control (Seabrooke & Henriksen 2017). Furthermore, it contributes to increasing understanding of the use of expertise knowledge in EU policymaking processes. Not only does the EU draw on expertise knowledge to gain legitimacy for policy proposals, it is also the key resource for actors and organisations seeking influence over how sustainable finance is treated at EU level. This thesis shows that those who are able to exploit their network position and epistemic knowledge, become most influential in the network. Building alliances and creating hinges to linked

ecologies is key in this process (Abbott 2005; Farrell & Quiggan 2017). Moreover, as a result of a growing demand for expertise knowledge on sustainable finance, a sustainable finance profession is emerging at the transnational level. This thesis shows that sustainable finance activism has undergone a professionalisation, where traditional NGO activism on the outside partly is replaced by corporate reformism on the inside.

The outline of the thesis is as follows. First, Chapter 2 place this thesis in the intersection between IPE and the professions of sociology scholarship. Furthermore, the key theoretical assumptions that will guide the analysis will be outlined. Chapter 3 presents the case of EU Sustainable Finance, in order to provide a contextual framework for the empirical study. The methodological considerations are outlined in Chapter 4, discussing the benefits of a mixed-methods approach consisting of social network analysis, sequence analysis and qualitative interviews. The analysis of the empirical data is presented in Chapter 5. Here, the empirical findings are discussed in light of the theoretical framework outlined in Chapter 2. Chapter 6 further discussed the analysis from a theoretical perspective. Finally, the thesis is concluded in Chapter 7, also outlining a proposal for future research to take place within this field.

## 2. Theory

This thesis sets out to understand the social and relational processes of sustainable finance governance at EU level. To do so, I adhere to the tradition of IPE and the professions of sociology scholarship, emphasising the everyday politics of transnational governance. Traditionally political economists, and those in IPE in particular, have focused on macro-level developments, such as country-level processes and viewing states as carrying the final authority. In contrast, the micro-level has been the main focal point of sociologists, where authority claims emerge from relationships. In line with a call from Marion Fourcade (2007), I argue for the benefits of a cross-fertilization between the two disciplines. Responding to this call, I approach the issue of EU Sustainable Finance and expert networks by drawing on both IPE and professions of sociology literature.

A body of work that permits one to see how macro-structures in IPE is linked to relationships formed by experts and professionals is that on transnational governance (Zeitlin 2015). Emphasis here is put on relational theories of transnational governance rather than

state hegemony, which also will be further discussed. Following this, the theoretical assumptions of social network theory will be outlined, arguing that transnational governance takes place through two-level networks, where professionals and organisations compete and cooperate for issue control. Key in this theoretical assumption is the concept of 'epistemic arbitrage' and ecologies (Seabrooke 2014). This section will thus conclude by outlining the connection between expertise knowledge and authority in transnational governance.

## 2.1 Theories on transnational governance

Transnational governance has long been the interest of political science, IPE and International Relations scholarship. Major contributions to this field of research has particularly been made by Susan Strange, the mother of modern IPE. Pioneering the field, she argues for the declining hegemony of the state and the rising power of markets, technology and finance in transnational governance, leading to a rise in public-private governance (Strange 1996). However, steps were already taken in the 1970s, when Keohane and Nye introduced their concept of 'Complex Interdependence', discussing the influence of non-state actors on transnational issues (Keohane and Nye 1972, 1974). Building on this, a new body of work on the 'New Interdependence' has appeared. Here, Farrell and Newman accentuate how rule overlap between different jurisdictions, opportunity structures and power asymmetries in international politics affect both actors' interests and their ability to pursue them (Farrell and Newman 2016).

Following this, a rich tapestry of transnational governance literature has emerged, where IPE scholars have paid increasing attention to the rising importance of non-state actors and new and hybrid forms of governance (K W Abbott et al. 2015; K W Abbott et al. 2010; Hale and Roger 2014; Ponte and Henriksen 2017; Stone 2004, 2013). The focal point is governance taking place at the transnational level, often through soft and indirect governance modes. This includes perspectives on governance through delegation, standards and benchmarks (Djelic and Quack 2010; Ponte 2019; Snidal and Abbott 2010) and public-private partnerships (Gulbrandsen 2014). Sustainability governance in general and climate governance in particular has also started to emerge into its own field of research within transnational and global governance literature, often focusing on the prevalence of multi-stakeholder initiatives and non-state market-based forms of authority (Fransen 2012; Ponte 2014; Thistlethwaite 2014).



Perhaps one of the most important contribution to transnational governance in recent years has been made in relation to orchestration theory (K. W. Abbott et al. 2015; Hale and Roger 2014; Ponte and Henriksen 2017). Orchestration, as defined by Abbott et al, can be characterized as a governance mode that is both indirect and soft (K. W. Abbott 2015). While rationalist scholars view transnational governance as a hierarchical processes, with the state as the main governor who create, design and steer International Organizations (IOs) in accordance with their own interest (Koremenos, Lipson, and Snidal 2001), orchestration theory pays attention not only to states, but also the behaviour of international organisations (K. W. Abbott et al. 2015; Hale and Roger 2014). Orchestration occurs when an actor “enlists and support intermediary actors to address target actors in pursuit of IGO governance goals” (K. W. Abbott et al. 2015, 4). In practice, this form of ‘governance at a distance’ suggests that one actor (the Orchestrator) works through a second actor (the Intermediary) to govern a third actor (the Target) following the O-I-T model, as outlined below.

**O (Orchestrator) → I (Intermediary) → T (Target)**

Abbott et al argue that orchestration is particularly attractive for intergovernmental organizations (IGOs), as they lack much of the authority that states possess to, for example, adopt mandatory and enforceable rules. IGOs can manage states by working through intermediaries to shape state preferences, beliefs, and behaviour, as-well as bypass states to influence private actors conduct. The European Commission for instance, engages widely in orchestration, due to its entrepreneurial bureaucracy set-up (K. W. Abbott et al. 2015; Snidal and Abbott 2010). While the OIT-model was developed with a Rational Choice perspective in mind, it is can also be approached following a constructivist approach (K. W. Abbott et al. 2015). Recent orchestration studies has focused on sustainability and global climate or environmental governance (Bäckstrand et al. 2017; Hale and Roger 2014; Ponte 2019), arguing that orchestration is likely to take place in these fields due to the frequency of suitable intermediaries (K. W. Abbott et al. 2015).

Contributing to transnational governance literature, orchestration theory puts the relationship between actors in focus. While I adhere to the notion of transnational governance as a relational process, orchestration theory downplays the agency of professionals who occupy the organizational and transnational space. Their authority is simply a function of their employing organization. This critique has been raised by Ponte and

Henriksen (2017), who argue that the perspective of social networks in orchestration efforts, particularly in relation to transnational governance processes, marks a gap in the literature. They have taken a first step to bridge this gap in their study on issue-specific aviation biofuel social networks (Ponte and Henriksen 2017). They show how public orchestrators support and create global networks of experts and stakeholders, i.e. engage in network governance. The downside of this governance mode is however that the close social proximity between the orchestrator and the intermediary can lead to a regulatory capture, where the orchestrator begins to favour the specific interest of the intermediary over the public interest (Baker 2010). Ponte and Henriksen highlight that the network effect on actors' ability to orchestrate the public interest is not yet fully understood (Ponte and Henriksen 2017).

Following this conclusion, while drawing on the contribution from orchestration theory on the importance of focusing on the *relational* aspects of transnational governance, this thesis places emphasis on professional networks in transnational governance. Taking a constructivist approach, I align myself with the field of research that concentrates on shedding a light on the power of non-state actors, rather than the conventional focus on state power, concentrating on who can make authoritative claims over transnational issues (cf Ban, Seabrooke, and Freitas 2016; Dezalay and Madsen 2017; Helgadóttir 2016; Seabrooke and Henriksen 2017; Stone 2013; Tsingou 2015).

## 2.2 Relational perspectives on transnational governance

Constructivist scholarship builds on the notion that shared social knowledge is crucial to social change. Drawing on this is ontological understanding; this thesis views these relationships in transnational governance through a networks and ecologies approach. Here, professionals and organisations are the main focus, as opposed to Principal-Agent and orchestration models that assume that formal authority is doing the work. Adhering to this approach to transnational governance, this thesis views transnational governance as a complex, multi-dimensional and relational process (Andonova, Betsill, and Bulkeley 2009).

I align myself with the constructivist discipline's understanding of transnational governance, focusing on the social and relational aspects. The conception of how these relationships are formed do however differ among scholars who sees knowledge as constructed in a social space. The field-approach takes a Bordieuan perspective on transnational governance, where the key concept of analysis is the idea of a set of forces,

invisible and intangible, that influence the objects within the field (Fourcade 2007). Considering how elites in transnational policy networks maintain their position, these scholars argue that power is dependent on different forms of 'capital' (Mudge & Vauchez 2016) and that actors' field position is dependent on sharing similar forms of capital (economic, cultural, symbolic and other forms). The unit of analysis is often the relations between the actors' objective positions within the field (Fourcade 2007). The Bordieuan field-approach, as showcased by Dezalay and Madsen (2017) in their study of transnational legal entrepreneurs, is particularly suitable for understanding the construction of power. It does so by taking the larger sociological picture into account, rather than focusing on jurisdictional battles.

In contrast to the field-approach, scholars departing from the historic materialistic writings of Marx and Gramsci take a hegemony-approach to transnational policy networks (van Apeldoorn 2004). Van Apeldoorn and de Graaf (2012) argue in their study of grand strategy under the Clinton, Bush and Obama administration that two structural dimensions shape the agency of grand strategy-makers; their social positions, such as personal links to corporate interest or ties to policy-planning networks and, the wider structural context in which they operate, such as the grand strategy of previous administration and the given global context (Van Apeldoorn and de Graaf 2012).

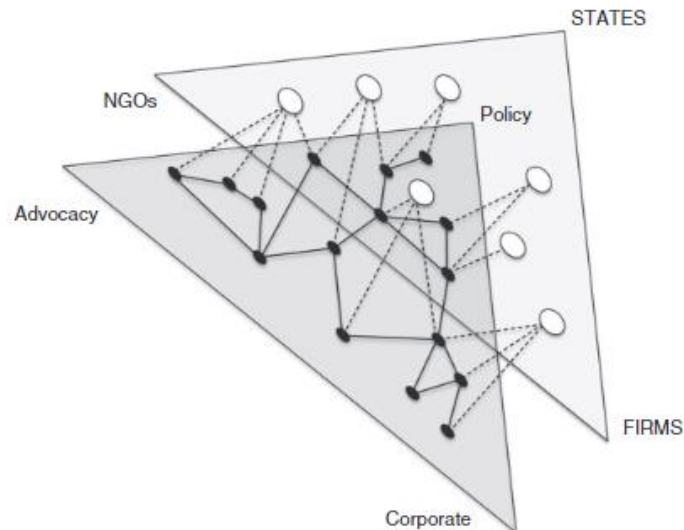
While both the field and hegemony-approach take a constructivist, relational approach to transnational policy networks, I draw on the Weberian institutions approach. Though all approaches fall under the umbrella of IPE, I argue that the fields- and hegemony-approach, respectively, underplay how professionals and organizations change and influence norms in policymaking by actively engaging in networks. Instead, this is better encompassed by the Weberian institutions approach to transnational policymaking (Henriksen and Seabrooke 2020, Forthcoming). This includes World Polity models, which understand the behaviour of nations, organisations and individuals as stemming from a common global culture, institutionalized through international treaties and organizations (Hironaka 2015; Kentikelenis and Seabrooke 2017). Here, social change is fundamentally dependent on cultural understandings. Institutional structures are understood as a network, in which agents navigate and exercise agency (Hironaka 2015). Adhering to this school of thought are also theories on 'recursive' models of transnational policy. Halliday et al (2009) highlight that legitimacy matters for IGOs and that they therefore use policy scripts strategically to advance

their claims to authority. Global norms, in this sense, is a product of inter- and intra-organizational conflict.

These Weberian approaches to transnational governance are however mainly focused at IGOs and international non-governmental organizations (INGOs) as the level of analysis, rather than also considering professionals as individual actors. Therefore, I draw on the constructivist approach to social network theory for this study of transnational governance of sustainable finance at EU level. Already back in 1978, Heclo identified what is now commonly known as networked governance (Heclo 1978). Studying Washington politics he argued that power was exercised through intricate webs of 'issue networks' populated by actors who deemed each other as knowledgeable, and exercised power through expertise knowledge (in Levi-Faur 2012). Building on Heclo's approach, Hall emphasises the role of social learning in policymaking and the role of ideas in policy change (Hall 1993; Hall 1989).

While both Hall and Heclo focus on national policymaking, this thesis is more concerned with policymaking taking place at transnational level. Moreover, in line with Fourcade (2007), my approach also takes the institutional differences and similarities in the actor-network into consideration. In this understanding, it is not only network ties and position matters. To understand the power dynamics of transnational governance, I consider both the authority stemming from professional expertise and knowledge as well as professionals position within networks (see for example Henriksen and Seabrooke 2019; Seabrooke and Wigan 2016).

Social network theory is focused on social structures and puts an emphasis on the role of non-state actors, such as professionals and organizations, in transnational governance (cf Coman 2016; Fourcade 2007; Lazega et al. 2012; Seabrooke and Wigan 2016; Thistlethwaite and Paterson 2016). This allows the researcher to conceive of a second level of coordination and competition below the formal level of orchestration discussed by Abbott and others, where state, firms and NGOs occupy a 'Governance Triangle' (Snidal and Abbott 2010). Henriksen & Seabrooke (2017, 2019) adds a second dimension to this organizational space of policymaking, activist, and corporate activity by professionals. This is the professional space where professionals interact with organizations, creating a two-level network of transnational governance (2017).



*Figure 1. Two-level network of transnational governance*

*(Henriksen & Seabrooke, 2017, 14)*

Transnational governance in this sense can be understood as the battle between professionals and organizations to gain issue control. Change takes place through two-level professionals and organizational networks, where those who have issue control also have the authority to frame issues and drive change (Seabrooke & Henriksen, 2017). In this theoretical framework, emphasis is put on the fact that ‘transnationality’ matters. Here, at the thin transnational level ‘issue professionals’ are increasingly prevalent in transnational governance, as they are able to decouple from established professional hierarchies (Hasselbach 2016). While previous literature often has focused on issue entrepreneurs (Carpenter 2007), issue professionals distinguish themselves in the sense that they do not engage in campaigning on issues, rather they compete and cooperate over how issues should be treated (Seabrooke & Tsingou 2014). This in line with Fourcade’s (2006) findings, that professionals at the transnational level are able to decouple from national jurisdictions and professional associations.

The social network approach has recently been applied to studies of transnational issue emergence. Charli Carpenter (2007) draws on the concept of transnational advocacy networks (TANs), investigating how and why some issues emerge and are adopted in issue network while others do not. She argues for the network approach to understand issue emergence, rather than a transnational advocacy frame, as inter-network competition will impact the issue adoption or rejection. Recent studies on the network effect on economic policy and financial transnational governance has showed how esteem, stemming from for example affiliations and formal education at a few elite (often US or UK) universities or

business schools, is key for issue control (Baker 2017), but also how economic ideas move from the periphery to the centre of policymaking - and back again (Helgadóttir 2016). The role of ideas and expertise in financial regulation has also been investigated in recent social network and career sequence studies (Ban, Seabrooke, and Freitas 2016; Coman 2019) as-well as the importance of 'club governance' in financial regulation and economic policy (Tsingou 2014b, 2014a, 2015) and the role played by distinctions, affiliations and professional knowledge in financial reform expert groups (Seabrooke and Tsingou 2014). Studies have also discussed the network effects of revolving doors between the finance sector and regulators (Baker 2010; Fourcade 2006).

Few studies have attempted to bridge the gap between sustainability experts and financial policymakers in transnational governance, although some (key) steps have been taken by Thistlethwaite (2014). He argues that a significant research gap exists on the links between the use of financial knowledge in private governance initiatives and the impact on spreading sustainable finance norms and practices. His research show that finance-led climate governance initiatives utilizes technical knowledge to build consensus and advance their climate change risk governance agenda (Thistlethwaite 2014). The emergence of the field makes it particularly suitable to study in order to understand how professions compete and collaborate for jurisdiction at transnational level as-well as to understand the role of expert networks and knowledge in shaping the Sustainable Finance agenda.

### 2.3 Networks, Ecologies and Professionals in transnational governance

It was Durkheim (1895) who stated that "the first and most fundamental rule is to consider social facts as things". Drawing on this, this thesis builds on social network theory, to provide a bridge between the scholarships of IPE and sociology of professions. Granovetter's theory of the strength of weak ties (1973) marks one of the most influential contributions to social network theory and sociology. He shows that individual's circumstances are restricted or eased by social networks. His research shows that individuals benefit from having many weak ties in a network, compared to having few strong ties in a close social network. For example, weak ties, such as acquaintances, are more effective for getting new information or diffusing information, compared to strong ties, such as close friends. Given this, an individual with many weak ties are more likely to get information on new job opportunities, and recognition for his/her achievements (Granovetter 1973). However, the strength of weak ties is not equal for

all groups or individuals. Research has showed how elites often make use of their weak ties in order to advance. In contrast more marginalised communities with less resources tend to devalue the weak ties they have and consequently do not make use of them (Weimann 1982). Still, Granovetter contribution remains important in social network theory, particularly in the studies of knowledge elites in transnational policymaking. It also provides a link to the theory of ecologies. Granovetter argues that weak ties, or so-called forbidden triads, are more effective for getting novel information – hence it is beneficial to be connected to actors in different groups – or so-called ecologies.

Ecologies in network studies centre on the social clusters that actors belong to. The theory of ecologies has its origin in sociological studies and has been used in a wide range of applications: the study of occupations, mental illness, and interactions (A. Abbott 1988). However, argues Abbott, one of the main limitations of the theory is that it only takes actors in a set of locations into account. This traditional view of ecologies does not consider external linkages or movement in and between ecologies (A. Abbott 2005). Striving to develop the theory further, Abbott (2005) has introduced the concept of ‘Linked Ecologies’. The ontological concept of linked ecologies manages to account for simultaneously existing and adjacent ecologies as-well as the actors who act across ecological boundaries, making it particularly suited when wanting to understand jurisdictional battles between professions. The approach has recently been applied to a number of cases, such as elites in transnational tax governance (Christensen 2020), the diffusion of peripheral economic ideas in academic networks (Helgadóttir 2016), and the study of networks linking the professional ecology of the World Bank to research ecologies (Stone 2013).

Linked ecologies takes three components into consideration: actors, locations and relations (A. Abbott 2005). Taking the ecology of a profession as an example, Abbott states that the components are the profession, a set of controlled tasks, and the relation between professions and tasks. In this model, the locations of an ecology are not static or fixed, rather the relation between actors and locations is in constant movement. Hence, actors and locations are both constituted and delimited by the continuous construction of relations between actors and locations. Abbott argue that internal properties of ecologies play a key role in shaping the possibilities for contact and alliances between ecologies (A. Abbott 2005). The form of the actors and their locations differ in terms of dimension and number. If the

ecologies are both small and exclusive, linkages will more likely be characterised as simple exchange between two sets of actors, while if the ecologies are both large and complex alliances will be more in flux. In addition, the pattern of created locations should also be considered. This concerns the jurisdiction of professions, the settlements of disciplines and more, where, for example, some professions are more exclusive in terms of jurisdiction. Lastly, the type of links, or ligation, between actors and locations should be considered. This means that events within one ecology are, to some degree, hostage to events in another ecology, and that this relationship in linked ecologies is reciprocal. Therefore, competitive strategies must also result in a reward to allies also in adjacent ecologies, in order to succeed in an ecology. Abbott labels the strategy of seeking alliances within adjacent ecologies to create dual rewards as 'hinges'. A contrasting strategy could be to instead seek to create an 'avatar' of itself within an adjacent ecology. This might however inevitably lead to competition within that ecology, leading to unforeseen effects of the direction and location of the avatar (A. Abbott 2005).

The linked ecologies approach is particularly suited when wanting to understand jurisdictional battles between professions. While early literature on sociology of professions emphasised the ties between professions and state authority (cf Halliday 1987), recent studies are now increasingly concerned with the decoupling from the state and transnationalization of professions (Fourcade 2006; Seabrooke and Nilsson 2014; Suddaby, Cooper, and Greenwood 2007). In this sense, professions act both proactively and reactively by capturing openings, boosting or even casting off their earlier jurisdiction in this competition. This has been shown by Marion Fourcade, studying the economics profession, arguing that professions in the European Union are going transnational. This, she argues, is a result of the free movement within the EU and the transnationalization of political and economic regulation (Fourcade 2006, 149). This is particularly true for the finance sector, where much regulation now is taking place at EU level. As a result, revolving doors between those in private financial institutions and regulators is common in policymaking communities (Seabrooke and Tsingou 2020).

In contrast to (and in critique of) Granovetter, Burt (2004) introduces the concept of 'structural holes' to explain how actors can arbitrage between knowledge in different ecologies. Structural holes emphasises how ideas are powered through brokerage,



rather than alliances or hinges, where professionals occupy structural holes in networks (Burt 2004). The idea draws on the importance of social capital and argue that people in close proximity to structural holes in network structures are more likely to be perceived as having 'good ideas'. By occupying the structural hole, these actors take on a brokerage role and benefit from informational arbitrage in the networks. Professions and mixed career trajectories are thus important. The assumption is that professionals with mixed career trajectories will be more successful in gaining traction for their ideas (Burt 2004).

Drawing on Abbott's linked ecologies approach and Burt's theory of structural holes, Seabrooke argue that the transnational level allow professionals to engage in 'epistemic arbitrage' (Seabrooke 2014). Professionals engage in epistemic arbitrage by exploiting the difference in knowledge between ecologies and by strategically occupy the structural holes in the network. The key resource given this framework is knowledge, rather than tangible resources such as funding or size (Seabrooke 2014). The ability to access knowledge from different ecologies can create opportunities for professionals to engage in arbitrage. If successful this can enable professionals to act as umpires on what knowledge and ideas are relevant for solving a particular issue (Seabrooke and Henriksen 2017). This approach has been used to study the role of technical expertise in transnational tax regimes (Hearson 2018), to study competition and cooperation between boundary organizations in the field of global health (Holzscheiter 2017), and to study how epistemic arbiters with sufficient technical and juridical knowledge are able shape global tax governance (Eskelinen and Ylönen 2017). Contributions has also been made Thistlethwaite and Paterson (2016) illustrating how epistemic authority play a key role in the governance of sustainability, focusing on private governance and accounting for sustainability networks.

## 2.4 Knowledge and Expertise in transnational governance

This thesis is also concerned with the use of expertise knowledge in transnational governance (A. Abbott 1988, Eyal 2013). The topic of professional expertise is not a novel phenomenon in the realm of social sciences. Frank Fisher (2009) notes that the study of professions has attracted much focus in the sociology literature. It has however not gained a lot of attention in political science, despite, Fisher argues, the frequency of professional expertise in policy making-processes today (Fisher 2009). The salience of expertise knowledge in policy processes at the transnational level has been discussed by epistemic communities' scholars (Haas 1992,

Haas & Adler, 1992, Dunlop, 2009) as well as in European studies (Radaelli 1995, 2001; Boswell 2008).

Haas (1992), defines epistemic communities as “a network of professionals with recognized expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge within that domain or issue-area” (Haas 1992, 3). Here, knowledge is the key defining factor of epistemic communities. Furthermore, Haas argues that the influence of epistemic communities grows when the ‘right’ policy choice is uncertain. When there is uncertainty on the right policy choice, epistemic communities are able to interpret the issue in accordance with their interests and hence institutionalize their ideas (Haas 1992).

European studies (cf Boswell 2008; Radaelli 1995, 2011) have also been increasingly concerned with the political use of expertise. Radaelli (1999) focuses on technocracy, bureaucratic politics, epistemic communities and argues that the European policy process is characterized by a struggle between technocrat technical solutions and political debate. If a policy issue is politicized, it is often due to a successful struggle of the latter. In line with Radaelli’s scholarship on knowledge in public policy (Radaelli 1995), Boswell explores the use of expert knowledge in EU immigration policy and argue that expert knowledge is utilised both instrumentally and symbolically in EU policy making processes (2008). A similar approach is taken by Diane Stone, focusing on the role of knowledge actors in transnational governance (Stone 2004, 2013). Her research on transfer agents and TANs points to the strategic use of knowledge sharing by international actors in transnational governance.

While European scholars also distinguished the role of expertise and epistemic communities’ role in policy processes, social network theorists highlight how professionals engage in epistemic arbitrage and thereby exploit opportunities between bodies of knowledge (Seabrooke 2014). In contrast to literature on epistemic and transnational communities, which builds on the notion that professionals behave in accordance to the best scientific practice, social network literature assume that professionals utilise and play-off knowledge in order to compete and cooperate for issue control (Seabrooke 2014). As a general concept however, the ‘epistemic arbitrage’ approach to knowledge is not at great odds with the theoretical assumptions presented by epistemic communities’ scholars (Haas 1992, Haas & Adler, 1992, Dunlop, 2009). In both conceptions, knowledge is the ‘glue’ that ties it together. Alas, in this

understanding, arbitrage is based on a relation where the professional is seen as ‘knowing well’ rather than having information or ideas (Lazega 2008). Drawing on Burt (2010), ‘good ideas’ are only as powerful as the professionals promoting them. In other words, it is knowledge, and not ideas, wealth, or norms, that is the key source of power in transnational governance.

To conceptualise knowledge in expert networks I draw on Sigrid Quack’s seminal work (2013). Quack argues that expertise generally is conceived as specialist knowledge that in one way or another differs from ‘common knowledge’, but that at the same time also refers to a claim of authority (Quack 2013, 659). This aligns well with the notion of epistemic arbitrage of ‘knowing well’. Quack also argues for a holistic approach to understand how actors use expertise and knowledge to influence transnational governance. While the focus often tends to emphasize expertise as ‘power over’, where knowledge elites use their technical expertise in order to influence transnational governance, Quack argues that expertise also should be seen as ‘power to’ and ‘power with’ (Quack 2013). ‘Power to’ refers to specific skills and competencies required to participate in transnational governance processes, whereas ‘power with’ refers to the notion of expertise as a relational process. Therefore, expertise and knowledge should not be seen as a static concept, but rather as a concept in constant flux (Quack 2013). I argue that Quack’s holistic approach is well aligned with Seabrooke’s (2014) claim of knowledge as relational. Furthermore, the combination of ‘power over’, ‘power to’ and ‘power with’ is well aligned with the conception of how well-connected and strategically positioned professionals make use of knowledge and expertise in order to gain issue control in transnational governance.

## 2.5 Theoretical framework

This study focuses on how expert networks make authoritative claims in setting the Sustainable Finance agenda. At the core of this is the theoretical understanding of transnational governance as a two-level network, where issue professionals and organisations compete and cooperate for issue control (Seabrooke and Henriksen 2017). Given this, transnational governance is a relational process in constant flux (Andonova, Betsill, and Bulkeley 2009). In addition, I set out to study the process of transnational governance as the micro-level, focusing on the everyday politics of transnational governance.

Key to this theoretical framework is the conception of expertise knowledge. Power in transnational governance networks is expressed through knowledge, where professionals who are deemed as knowledgeable and as 'having good ideas' have the possibility to exert influence over how sustainable finance is treated at the transnational level. In line with the understanding of transnational governance as fluid, knowledge is too. Expertise knowledge therefore needs to be seen as a concept that constantly is created and recreated by the actors of transnational governance (Quack 2013). In doing so professionals engage in epistemic arbitrage (Seabrooke 2014), where they seek to exploit the difference in knowledge between linked ecologies and occupy structural holes in order to take on a brokerage position in the network (A. Abbott 2005; Burt 2004).

In conclusion, this theoretical framework is well aligned with Marion Fourcade's call for a 'theory of modernity'. Fourcade argues that sociologists need to focus their attention to study the centrality of markets and include an analysis of how they transform everyday life as 'calculative collective devices' (Fourcade, 2007). Furthermore, Fourcade argues that sociologists should focus on actor-networks and the institutional, economic, social and cultural differences between them (Fourcade 2007). Adhering to Fourcade's critique, this thesis rests on the assumption of the key role played by networks in transnational governance. This sentiment is shared by Seabrooke & Henriksen (2020), who are calling for increased collaboration across and between the disciplines, particularly in the studies of transnational governance and transnational policy networks (Seabrooke & Henriksen, 2020). This thesis contributes to this call for interdisciplinary research, drawing on IPE, the sociology of professions scholarship and social network theory.

### 3. The empirical case: EU Sustainable Finance

To understand how expert networks make authoritative claims in setting the Sustainable Finance Agenda, I turn to the empirical case of EU Sustainable Finance. This provide a concrete empirical case to investigate how a transnational issue (sustainable finance) is governed and shaped at the transnational level (EU level) through expert networks (the HLEG and TEG) and how authoritative claims are made to the agenda. In a sense, it provides for a typical case of transnational network governance. Consequently, if the theoretical assumptions hold true in this case, which is a typical case of the use of experts and expert knowledge in EU governance,

it is likely to hold for similar cases of expert governance at transnational level. This section will briefly introduce the empirical case of EU Sustainable Finance, in order to outline the context of the study.

### 3.1 EU Sustainable Finance

Following the adoption of the Paris Agreements and Agenda 2030 in 2015, the European Commission has committed to three climate and energy targets to reach by 2030 and to make the EU climate neutral by 2050. Therefore, the Commission announced a new focus on sustainable finance as a part of its flagship initiative the Capital Markets Union (CMU) and established the High-level Expert Group (HLEG) on Sustainable Finance in 2016 (European Commission 2016).

The HLEG was established in December 2016 and consisted of 20 experts from civil society, the finance sector and academia, following a call for applicants earlier that year. In addition to the individual members, several members also participate as observers due to their organizational capacity. The mandate of the group, as set out by the European Commission, was to provide the Commission with advice on how to; steer the flow of public and private capital towards sustainable investments, identify steps that the financial institutions and supervisors should take to protect the financial stability of the system, also in the light of environmental risks, and roll out these policies on a pan-European scale. During their work, the HLEG was supported by a secretariat provided by the European Commission (European Commission n.d., 2019).

The HLEG held 8 meetings in 2017. An interim report was published in July 2017, and their work culminated with a final report in January 2018 – only 12 months after their mandate first begun. In the foreword, Commissioners Valdis Dombrovskis (Vice-President for the Euro and Social dialogue, also in charge of Financial Stability, Financial Services and Capital Markets Union) and Jyrki Katainen (Vice-President for Jobs, Growth, Investment and Competitiveness) states that the entire financial system needs to be transformed in order to realise both the Paris Agreement and the EU pledge to reduce CO<sub>2</sub> emissions by 40% by 2040. Dombrovskis and Katainen outline the recommendations from the HLEG as the first step

towards this goal (European Commission 2018a). The final report from the HLEG, led by AXA's Christian Thimann, Chair of the HLEG, sets out the following seven priority actions for the EU:

## The HLEG recommendations

- |  |  |
|--|--|
| 1) Establishing an EU sustainability taxonomy  | 5) Developing official European sustainability standards for some financial assets, beginning with green bonds |
| 2) Clarifying investor duties to extend the time horizon of investments and bring greater attention to ESG factors in investment decisions | 6) Deploy development capacity in member states for infrastructure needed for a more sustainable economy       |
| 3) Revamping disclosures to make sustainability risks and opportunities transparent  | 7) Integrate sustainability in the governance of financial institutions as-well as in financial supervision.   |
| 4) Make it possible for retail investors to invest in sustainable finance opportunities  |  |

Adapted from the HLEG Final Report  
Published January 2018

*Figure 2. The HLEG Recommendations (adapted from the HLEG final report 2018)*

In March 2018, following the HLEG final report, the Commission adopted an Action Plan on Sustainable finance, which builds on the recommendation from the HLEG and sets out a strategy on how to “further connect sustainability with finance” (European Commission 2018b). The Action Plan was swiftly followed by the announcement of several regulatory packages to implement the strategy set out by the Action Plan, as-well as the establishment of a Technical Expert Group (TEG).

The TEGs mandate was to assist the Commission in developing the measures proposed by the HLEG, namely the EU Taxonomy (a classification system for sustainable economic activities), an EU Green Bond standard, methodologies for low-carbon indicators (Benchmarks) and metrics for climate-related disclosure. The TEG began their operation in July 2018, following a call for applications. The TEG composition was larger than the HLEG, consisting of 35 members from civil society, academia, business, and the finance sector. As with the HLEG, additional members and observers from EU and international public bodies also participated due to organisational capacity. The final reports on the Taxonomy, the EU Green Bonds standards, EU Climate Benchmarks and Corporate Disclosures was presented at a (digital) stakeholder conference in March 2020, following an extension of their mandate from June 2019. During their work, the TEG worked in work-streams organized around the four measures set out by the Commission. Several outreach events and consultations also took

place, supported by a Secretariat provided by the Commission. At the time of writing, the TEGs mandate has been extended again, until September 2020, in order to conclude its technical work (European Commission 2020).

The case of EU Sustainable Finance is a living case. As underlined by the current Von der Leyen Commission's launch of the EU Green Deal, this will most likely continue to evolve for years to come (although the effects of a global pandemic remain to be seen). That the case is current, and still on-going, is not seen as a limitation for this study. First, the thesis is concerned with the expert networks in and around the HLEG and TEG, which (main) work has been concluded. Secondly, the focus is put on the processes of cooperation and coordination taking place in expert networks, rather than scrutinizing the policy outcome. As will be discussed in the methodology section, this thesis therefore rests partly on participants' own depictions of the process. Therefore, it is in fact a benefit to work with a current case, where the process is fresh in memory among the participants.

## 4. Methodology

This thesis is conducted as a single case study of expert networks and EU sustainability governance, focusing on the case of EU Sustainable Finance. It follows the rationale of a theory-testing research design, contributing to the cross-pollination of the field of IPE and sociology. The case of EU Sustainable Finance provide for both a typical as-well as influential case (George and Bennett 2005). It is a typical case of the use of expert networks in EU governance, and if the theoretical assumptions hold true in this case it is likely to hold for other similar cases. It is also influential as a flagship case in EU sustainability governance, particularly taken the speedy process and impact of the expert groups' work. It should however be noted, that in line with the general assumptions regarding case studies, this generalizability is conditioned.

### 4.1 Research design: a mixed methods approach

The research design follows a mixed methods approach, drawing on both quantitative and qualitative methods. Taking a mixed methods approach has become increasingly common in recent years, with several scholars championing the benefits of combining qualitative and quantitative research methods (Bryman 2006; Mahoney and Goertz 2006). The general idea

is that it increases the robustness of the research design, as the weaknesses of one method is balanced by the strengths of the other (Bryman 2006).

I adhere to this notion, seeking to triangulate the findings as-well as offset the weaknesses of the methods and rather draw on their strengths. While social network analysis and sequence analysis provide two powerful tools to explore and understand the micro-level power structures in two-level networks (Henriksen and Seabrooke 2017), these methods are inherently reducing the social structures to codifiable data. I therefore also conduct qualitative interviews in order to provide a more complete and in-depth account of the power structures in the EU Sustainable Finance network. The research design, which will be elaborated more in detail in this section, is outlined in the table below.

Analytical Approach	Empirical Strategy	Data		Methods
Investigate how professionals and organizations in expert networks compete and collaborate for issue control over EU Sustainable finance	Analysis of EU Sustainable Finance two-level issue network	Trace CV's and career data of HLEG and TEG members and observers	Professional affiliation (Employed by or sits on the board)	Social Network Analysis
Investigate who can make authoritative claims to the EU Sustainable Finance agenda	Analysis of individual attributes of Top 50 most central actors		Career Sequences	Optimal Matching (OM) to generate career clusters
	Analysis of issue professionals claims and framing of EU Sustainable Finance governance process	Interviews with EU Sustainable Finance professionals (Top 50 most central actors)		Theoretically informed qualitative analysis of interview data

*Figure 3: Research Design*

The research design is inherently iterative, with the different steps of the research process informing each other. As a consequence, several steps of the research process took place simultaneously and informed the other steps of the process. The first step of the process consisted of identifying the different actors and organizations involved in the EU expert network on Sustainable Finance. Since this thesis focused on the expert networks in and around two EU expert groups, the HLEG and the TEG on Sustainable Finance, the actors involved were identified by mapping the public lists of HLEG and TEG members and observers.

The mapping resulted in a list of 379 actors, for which I gathered data on their professional affiliations in order to create a two-level network. Professional affiliation in this



sense has been counted as employed by or sits on the board of. Current as-well as previous professional affiliations have been mapped. This resulted in a list of 379 actors and 1108 organizations, which were coded in a matrix and loaded into the social analysis tool UCINET (Borgatti et al. 2002). In UCINET, the two-level network was visualized, and the most central actors and organizations were identified using the Betweenness and Eigenvector centrality measurements.

The Betweenness centrality scores then informed the sampling for both analysis of the career sequences and the qualitative interviews. The career sequences of the top 50 most central actors were mapped and the data was analysed using the TraMineR package for sequence analysis in the R software system. I conducted the analysis using the Optimal Matching method in order to generate career clusters. Some simple descriptive statistics were also rendered for the career sequences and clusters, namely, to calculate average career length. Finally, sampled from the list of the Top 50 most central actors, I conducted 8 interviews with central actors in the EU Sustainable Finance network. These interviews were semi-structured and took place over phone, Skype or Zoom.

#### 4.2 Social network analysis

Social Network Analysis (SNA) has its origin in social anthropology, focusing on the studies of social structures. In tandem with increasingly powerful data processing tools it has evolved to include the application of graph mathematical theory and visualisation as a mean to study networks (Scott 2013). Following this development, it has progressed to its own, as argued by Emirbayer (1997), comprehensive analytical strategy, rather than a theory or research methodology. As a research methodology, it relies heavily on graph theory and sociometry to depict social configurations, such as the direct and indirect ties between actors. Social network analysis is also concerned with multidimensional scaling to map complex ties and networks, emphasising the structural ties of actors' to third parties (Emirbayer 1997). Hence, it is a particularly powerful method when studying relational data such as contacts and ties as-well as connections, group attachments and meetings which relates one agent to another, and which relation cannot be reduced to the properties of the individual agent themselves. Rather relations in this sense is attributed to the relational systems of the network itself. This differs from for example attribute data, which related to attitudes, opinions and behaviours of

agents, viewed as properties that can be ascribed to them as an individual or a group (Scott 2013).

Social network analysis is intuitively concerned with network structures. A network consists of nodes and the connecting relations between them. Each node makes up a point in the network while the relations between the nodes are called edges, ties or links. A node can be organizations, individuals, group, communities and more (Steketee et al. 2015). The relational ties in a network can be directed or un-directed, depending on the type of relational tie mapped in the network. A tie can for example be directed in the sense that the connection experiences by one individual to another is not reciprocated (Marin et al. 2016). Consider an example of mapping friendship ties, where individual A states that he/she is a close friend with individual B, whereas individual B does not feel the same way for individual A. The 'close friend' tie is not reciprocated; hence it is directional tie. Giving advice to or sharing information are also examples of relational ties that can be directed. For this thesis, the network ties are however undirected and the relational ties do not distinguish between the sender and the receiver (Marin et al. 2016).

This analysis is concerned with mapping both the individuals involved in the EU Sustainable finance network, as-well as the organizations. The nodes in our network are therefore made up by both organizations and individual professionals. Together, they create a so-called two-mode network – depicting organizational ties and individual ties as-well as the ties between the two levels. This differs from one-mode networks, which is only concerned with ties between nodes at one level, such as friendship ties between individual actors (Marin et al. 2016).

The collection of relational data can be done in various ways, such as documentary sources, ethnographic investigations, and surveys (Scott 2013). As with any data collection, one must take selection problems into account. For relational data, this issue arises from the boundedness of social relations and the lack of possibility to sample relational data. Two main strategies to identify the boundaries of a network is outlined by Borgatti et al. (2011). The first approach, the realist approach, strives to identify boundaries that are perceived as real by the participants themselves. This approach is often used when studying 'small world' networks. The main disadvantage with this approach is however that not all participants will perceive the boundaries in the same way, making it difficult to distinguish

where the network ‘ends’. A contrasting approach is the nominalist approach, which seek to define the boundaries of the network through a formal criterion. A general challenge for positional sampling is the question of which positions to include, i.e. where to draw the line (Borgatti and Halgin 2011; Caiani 2014; Scott 2013). In this case, as this thesis is concerned with the HLEG and TEG on Sustainable Finance, this is a cause for less concern, as a formal list exists to set the boundaries and guide the sampling. The target population is thus sampled based on affiliation, including the population as a whole, rather than a reputational or positional one (Scott 2013). The sampling has been conducted based on affiliation rather than position, where the formal criteria of being a part of the HLEG and the TEG, either as member or observer, or being a consulted experts listed in the official reports as having contributed to the work, that marks the boundaries. The cut-off point is simply set to either being affiliated or not, or in other words being included or not in the lists.

The data has been collected from publicly available sources. First, I traced the individuals and organisations involved in the EU HLEG and/or TEG on Sustainable Finance, either as a member, observer or consulted expert, also considering the individuals listed in the ‘Thank you’-section. These actors were included based on the notion that those experts who are thanked for their contribution also are key actors, with high esteem in the EU Sustainable Finance field. In other words, these actors have also played a role in the HLEG and TEG processes, by contributing with advice or contributing to the drafting process. In addition, it is crucial to include these actors to fully comprehend the network effect of expertise and advice in the EU Sustainable Finance network.

These individuals and organisations are all listed in the HLEG and TEGs interim and final report. This led to a population of 379 individuals. Second, I mapped the current and previous affiliations of the individuals involved. This was done by consulting publicly available sources containing career data. My primary source of data was LinkedIn, which in most cases are updated by the individuals themselves and provide for a reliable source of career data. In some cases, when LinkedIn-data was unavailable, data was collected from Bloomberg’s “who’s who” or organizational websites. For some high-level EU officials, CVs were retrieved as Europass CVs. In a few, very rare, cases, data was retrieved from biographies enclosed at event programs when it could not be retrieved elsewhere. In a few cases, no CV or biography

could be found. In those cases, only one affiliation has been entered in the data, namely the affiliation the professional had at the time of publication of the HLEG and TEG reports.

The data was entered into a spreadsheet in binary form, where each case (individual) make out a row and each affiliations (organization) make out a column. This creates a two-mode rectangular matrix where data is organized following the logic of case-by-affiliation, or a so-called incidence matrix. This can easily be transformed to one mode or square matrices, where the data is organized following case-by-case and/or affiliations-by-affiliations, also called an adjacency matrix. This type of matrix is important in social network analysis and equals a sociogram, depicting connections between the levels. Following this logic, the data was coded in a matrix, containing the name of the individual on the y-axis and the name of the institution or organization (i.e. affiliation) on the x-axis. I coded all current affiliations (employed by/on the board of) as-well as previous affiliations enclosed (where 1= employed by/on the board of). Student positions, internships, or stagiaire-positions were excluded, while PhD-positions were included. After this step was completed, my data consisted of 379 individuals and 1108 organizations, 1478 nodes in total. This spreadsheet was then transferred into the program UCINET for visualization and analysis.

To assess which actors and organisations are most influential in the EU Sustainable Finance network, and hence can make authoritative claims in setting the EU Sustainable Finance agenda, the analysis has focused on centrality. Centrality is a measurement of which nodes are most interconnected in the network (Steketee et al. 2015). Several options exist to measure centrality, where the most straightforward measurement is Degree centrality. Degree centrality measures the number of other points to which a point is adjacent to, following the logic that an agent is central in the terms of being “well-connected”. Degree centrality does however disregard indirect connections, hence it can be argued that it should be considered as a measure of local centrality in a network. In order to also encompass global centrality, Freeman (1970) has introduced the concept of Closeness centrality. Closeness centrality takes the distances among the points into consideration, by measuring the length of the shortest path, or geodesic, between one point and another. A point is globally central if the distance between it and many other points is short (Steketee et al. 2015).

For this thesis however, centrality is measured with Betweenness and Eigenvector centrality. Betweenness centrality was introduced by Freeman (1979) and is

particularly suitable for investigating influence. Betweenness measures to which extent a certain point lies between the other points in the graph/network. Doing so, it considers to which extent a point can be a broker or gatekeeper in the network, in a way that Degree centrality does not. For example, a point with a low degree centrality might be very important as an intermediary, hence having a central role in the network (Marin et al. 2016). This is best captured using the Freeman's Betweenness centrality measurement. In other words, it measures who are the most important actors and organisations in the network.

However, in small networks like the EU Sustainable Finance expert groups, it can be key to not only be connected to many other actors but rather to the right actors. For example, an individual might have the potential to act as a broker or gatekeeper in the network and score high in betweenness centrality. However, if this individual is not connected to the right actors, i.e. the most powerful actors, his/her position is of little value. I therefore complement the Betweenness centrality by also measuring Eigenvector centrality. Eigenvector centrality measures the level of influence a node has on the network, by considering the level of Eigenvector of connecting nodes (Marin et al. 2016). Approaching the EU Sustainable Finance network through social network analysis allows for visualizing and analysing the social structures of the network and identify who has the authority to influence the EU Sustainable Finance network. When combined with sequence analysis it provides for a powerful tool to create a narrative of the studied system (Seabrooke & Henriksen, 2017). The methodological considerations of sequence analysis will be discussed in the following section.

#### 4.3 Sequence analysis

The social network analysis is supplemented by a sequence analysis of the Top 50 most central actors' career sequences. Sequence analysis is mainly used to either describe and represent sequences or compare and classify sequences, as-well as mining inside a population of sequences or explore trajectories and causal relationships of sequences (Blanchard 2016). Here, the purpose is to gain a deeper understanding to why some actors occupy central positions within the network by tracing their career trajectories. Is there, so to say, a pattern in how central (and in other words influential) actors behave in their careers and networks.

Sequence analysis is a method to process sequence data. Originating in genetics and computer science, it has gained traction in recent decades also in sociology, anthropology and political science (Blanchard 2016). Abbott, who has played a key role in pioneering

sequence analysis in the social sciences, defines a sequence as an ‘ordered list of elements’ (A. Abbott 1995). While there are alternative approaches that can be applied to sequence data, such as multivariate statistics, longitudinal methods or time series analysis, I argue that they fall short in their lacking ability to capture the complexity of sequences. For instance, multivariate statistical methods also deal with sequence data, however by treating each state as independent it fails to take duration and time of states into account. Longitudinal methods on the other hand might be better suited to take duration into account; however, it neglects the complexity of successive steps in a sequence trajectory. Furthermore, while time series analysis accounts for time, it is not suited for categorical sequences that cannot be observed more than a few times (which sequences in the social sciences often are). Based on this, sequence analysis is the preferred method to gain a deeper understanding to why some actors occupy central positions within the EU Sustainable Finance network by tracing their career trajectories. Unlike the alternative approaches, sequence analysis allows for capturing the complexity that career sequences possess. It does so by constructing the data based on events/states that occur to individuals, rather than being constituted of individuals and their attributes. In addition, sequence analysis treat sequences as a whole (Blanchard 2016).

While sequences can be traced at macro level, such as following a country’s demographic transition over time, this thesis is focused on the micro level career sequences of the most central actors in the EU Sustainable Finance network. Sequence analysis has been applied to several cases to measure career sequences, for example to study organizational capital and careers among the cross-sectoral power elite in Denmark (Ellersgaard et al. 2019), to study the career trajectories of 18th century court musicians (A. Abbott and Hrycak 1990) and to study of IMF staff career sequences (Seabrooke and Nilsson 2014).

In sequence analysis, a sequence is understood as a “succession of elements inside chosen inside an alphabet” (Blanchard 2016, 1). The three basic components of social sequences are the nature of the successive states (chosen among the alphabet), the order in which they occur and their duration (of constant sub-sequences). In sequence analysis, the diversity of state sequences is measured using the concept entropy, whereas complexity measures the quantity of non-successive sub-sequences inside the individual sequence and the variance of their length. If a sequence is complex, it can be considered as unstable, whereas a subsequence of only one state can be considered as stable (Blanchard 2016).

To make the career state sequences comparable I apply the Optimal Matching method (OM). The method was originally developed for bioinformatic analysis and to analyse DNA strands but has later been applied also in IPE and sociology. OM allows for comparing of state sequences and the cost of transforming one state into another (A. Abbott and Hrycak 1990; Blanchard 2016; Seabrooke and Nilsson 2014). Applying the OM algorithm sequences allows for clustering similar careers together, enabling this thesis to identify trends and patterns into the careers of the Top 50 most central actors.

The cost is a key consideration in sequence analysis, building on the assumption that there is a 'risk' or 'energy' associated of moving from one state to another. Considering career sequences as a relevant illustration for this thesis, moving between career states is costly due to risk of failure. In addition, it takes 'energy' to move to a new career state as it often requires upgrading of knowledge and professional skills (A. Abbott and Hrycak 1990). I align myself with the idea presented in Seabrooke and Nilsson's IMF case study; that the cost of movement between states is understood as the cost of moving between different professional ecologies (Seabrooke and Nilsson 2014). Following this view, moving within one ecology is less costly than moving to another ecology. For this thesis, the cost has been set to the default cost of 2 for all transitions. This means that moving between, for example, a position at one civil society organisation to another is a cost of 0, whereas moving from civil society to the finance sector is at a cost of 2. It should be noted that the cost is absolute. Moving between ecologies can however pay-off for the professionals as it can help them become epistemic arbiters, with the ability to translate between different ecologies. The professionals career trajectories also matter in terms of network position, as it creates both strong and weak ties where information can flow (Ellersgaard et al. 2019).

This study is concerned with the career trajectories of the Top 50 most central actors in the EU Sustainable Finance network. The logic is that the Top 50 most central actors represent the most influential actors in the network. However, this is not to say that also the 51<sup>st</sup> most central actor might be influential in the network, but rather that the Top 50 marks a cut-off point for the purpose of being able to empirically study the career sequences in a comprehensive manner.

The actors career trajectories are mapped through the publicly available sources also utilised in the social network analysis, mainly LinkedIn. Their careers have been mapped during a period of 10 years, from 2010 to 2019, and coded in a matrix. It should however be noted that, as often is the case among influential issue professionals, many of the actors are employed at or affiliated to several organisation at the same time. In these cases, the researcher has to decide whether to stick with a simple alphabet (A, B, C...) or create a more complex alphabet (AB, BC, CA...) to capture the complexity of the different states at a particular time (cf A. Abbott and Hrycak 1990). As I am concerned with capturing the over-all career sequences rather than the actors complete network linkages in this step, I have decided to keep the alphabet simple. Therefore, it has been the actors' main affiliations that has been coded in the matrix. The coding also builds on the actors' profession, rather than being based on affiliation, education, or training. The coding of professions can be viewed in table below.

Accountant	Consultant	Economist	Finance	Law	NGO Activist	Polymaker	Academia	Engineer	Student
A	C	E	F	L	N	P	R	E	S

*Figure 4. Coding of professions*

The OM analysis does not work in the case of missing values. Therefore, in order to avoid missing values in the matrix in the (few) cases where the actors were still in university in the beginning of the 2010s, I have added the state sequence S=Student to the alphabet. Data has also been collected on simple descriptive statistics related to the number of years of the professional's careers, since this also is assumed to influence network position and transition between states. The data is then loaded into the R Software system, where the TraMineR package for sequence analyses is applied. Here, I apply the OM algorithm to the sequence data and plot the sequences. The full R script can be viewed in appendix 3.

#### 4.4 Interviews

While the social network analysis and sequence analysis allows to shed a light on the micro-level power structures in two-level network of EU Sustainable Finance, I complement the findings with qualitative interviews, in order to gain more in-depth insights to how expert networks operate at EU level. Interviews as a research method is inherently qualitative. Conducting interviews is particularly suitable for research attempting to gather information on facts, such as the unfolding of a particular event, or research attempting to understand the respondent's subjective world view (Rowley 2012; Teorell and Svensson 2007). Often, these



objectives co-exist within the same study. As Steinar Kvale writes; “If you want to understand how people view their world and lives, why not talk to them?” (Kvale 1997, 9). As this thesis applies a mixed-methodology approach, the interviews are conducted to triangulate the social network analysis and sequence analysis, as-well as off-set the weaknesses of respective method (Bryman 2006). The aim is to both gather information on the unfolding of the HLEG and TEG process, as-well as understand the respondents’ view of how expert networks make authoritative claims in setting the Sustainable Finance agenda.

Kvale introduces the concept of the interviewer as either a miner or a traveller. A researcher adhering to the miner metaphor sees knowledge as a valuable mineral, buried and ready to be found. The interview is conceived as a means for data collection, disconnected from the analysis of said data. The traveller on the other hand travels to an unknown land, where she travels alongside the locals, asks questions, and listen to their story of their lived, and perceived, world. Here, the interview and analysis are interconnected and simultaneous phases of the research process (Kvale 2007). As this thesis shares this perception of knowledge as a social construct, the interview follows the traveller analogy rather than the miner.

Consequently, the interviews take the form of a one-way dialogue rather than a conversation in its conventional, every-day understanding of the word, giving the interviewee him/herself the possibility to steer the discussion. When needed, I have intervened to ask follow-up questions and steer the conversation back in the right direction, however I have strived to let the interviewees speak freely to the extent possible. Kvale (2007) also highlights the importance of listening for the implicit when searching for meaning in interviews. The researcher can for example seek to put words on the implicit and send it back to the interviewee as a ‘test balloon’. The interviewee then have the possibility to either agree or denounce the statement (Kvale 2007). During the course of the interviews this is done in several cases (as example, interviewee discusses an important individual with a mixed career trajectory and I form a question/statement based on this – “do you think this mixed experience/career is important to be influential?”).

For this thesis, the identification of the Top 50 most central actors has guided the sampling of interviewees. In total, 8 interviews were conducted (see appendix 2 for a full overview). Although meeting in person is the preferred way of conducting research interviews, due to its richness in information and ability to build trust, this was not practically possible for

this thesis. Rather the interviews were conducted via phone, Skype and Zoom. Due to this mix of mediums (depending on which was preferred by the interviewee) the interviews were conducted as a voice and not video call, in order to ensure consistency between the interviews. The draft interview questionnaire was sent to interviewees before the interview session. The purpose was to allow the framing process to start early. It should be noted that, as the interviews were constructed as a semi-structured interview, the interviews all differed from each other (Rowley 2012). Not all questions in the questionnaire was touched upon or explicitly asked. Furthermore, taking the analogy of the researcher as a traveller into account, the interview as well as the interview guide has been theoretically informed. The table below gives an overview to the thematic interview guide and questions (Figure 5).

The interviews were recorded and then transcribed using the AI-tool Otter, which automatically transcribes the recording into written text. The transcription was however double-checked, in order to correct any errors in the transcriptions. In the transcription, I have chosen to omit coughs and other similar sounds, however I have included laughs and long pauses. The transcription is done in written language rather than spoken and have been edited to ensure its readability. The interviewees were also given the possibility to review any quotes attributed to their name before publication of the study. This could mean that some of the quotes in the thesis differ slightly from the transcriptions in wording. To allow the interviewees to review the quotes was deemed as important to build trust between me as a researcher and them as the interview subject and balance the power relation, but also in order for the interviewees to agree to being recorded during the call.

Can you tell me about your background and current role?	Background questions
Can you tell me a little about how your work relates to sustainable finance?	
How would you define sustainable finance?	Framing of sustainable finance
Do you experience that the field/issue of sustainable finance has changed over the past years?	
Do you feel that sustainable finance has grown in importance in recent years? How do you feel about this mainstreaming?	
Why do you think that the Commission decided to prioritize sustainable finance?	EU sustainable finance
In what way have you been involved in the EU initiative on Sustainable Finance?	
How did you perceive the composition of the HLEG and TEG?	
Do you experience that there is a consensus on what sustainable finance is and how it should be treated now?	
How do you perceive the outcome of the HLEG and TEGs work respectively?	
The Taxonomy is often highlighted as the key EU initiative related to sustainable finance. Do you agree?	
Is there anything missing in the EU sustainable finance discussion today?	
Who have been the most successful in setting the sustainable finance agenda?	Authority over Sustainable finance
Who would you say are the most important actors in sustainable finance?	
You have been identified as a key player in sustainable finance. Why do you think that is?	
Who do you see as your most important alliances/collaborators?	Professional affiliations
Who would you consider the most important to talk to if requiring advice on sustainable finance?	

Figure 5. Thematic interview guide

The analysis of interviews can be done either systematically or unsystematically. However, it should be noted that the chosen approach inevitably will affect the interview. Thus, the analysis starts already during the interview and have implications on how it is conducted. Considering systematic textual analysis, two main distinctions can be made between analysis focused on language and meaning. The first include for example linguistics analysis, discourse analysis and narrative analysis. In essence, language centred analysis is focused on the expression of meaning through linguistics. This however not the scope of this thesis. Rather, the interviews are conducted in order to add meaning and depth to the social network and sequence analysis. Kvale argues that this can be done by analysing the interview text through systematic coding or condensation of what is said (Kvale 2007). While these methods have their merits, they also (intentionally) reduces the interviews to comparable and de-contextualised units. This would be counter-intuitive for the purpose of this research, particularly when recalling the main critique against social network analysis of de-contextualising the real world and reducing it to relational ties.

A more appropriate analysis technique is therefore to critically interpret the meaning, going beyond what is explicitly said in order to understand structures and relations. The drawback of this approach is that different readings of the texts might lead to different interpretations of its meaning (Kvale 2007). While this would have been acceptable, given that the interviews are not the only foundation for the analysis but rather a complement to the social network analysis and sequence analysis, my main purpose of the interviews is not to understand the meaning of what is said per se. Instead I align myself with the growing number of scholars who seek to approach the interview text as theoretical reading. This approach goes beyond following one specific and systematic approach, rather the researcher read and re-read the texts and reflect on and interpret them and specific themes from a theoretical perspective (Kvale, 2007). This approach has been used successfully by scholars such as Hargreaves (1994) and Bourdieu et al. (1999), leading to new knowledge in their disciplines. While this approach requires extensive theoretical knowledge and a theoretically informed interview questioning, I argue that it is the preferred analytical approach in order to triangulate the findings of the social network analysis and sequence analysis, in addition to off-set the weakness of each methods.

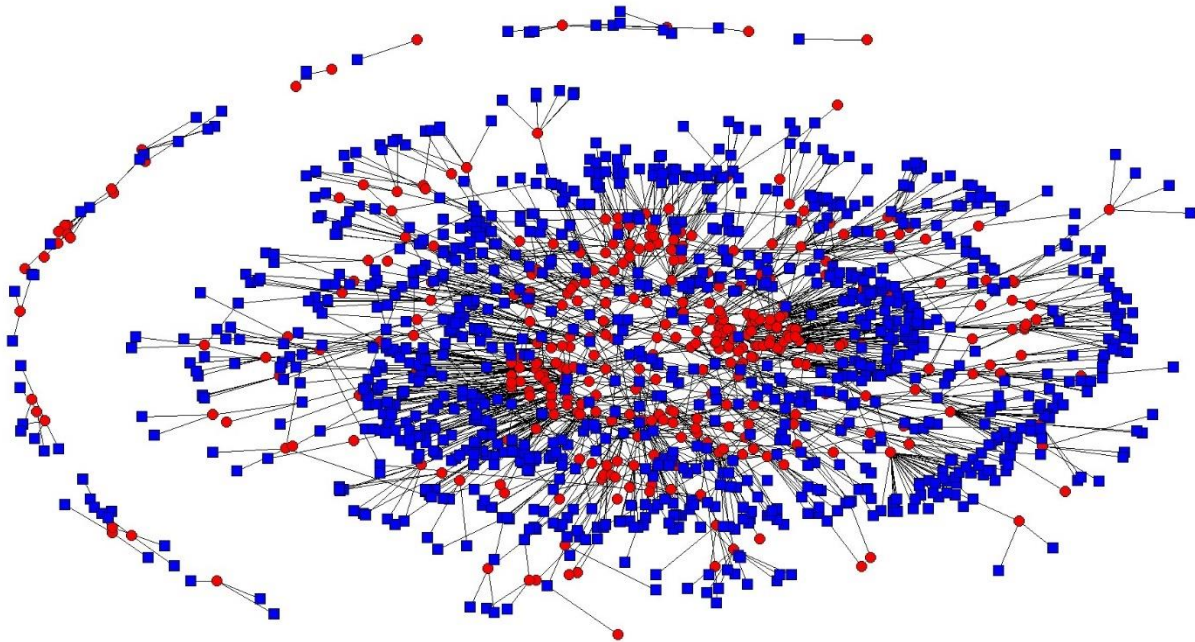
## 5. Analysis

In this section, the findings of the analysis are presented. First, an overview of the EU Sustainable Finance network is presented, followed by an in-depth analysis of the most central agents and organisations, i.e. those who have the most influence in the network. To understand and contextualise the most central actors network positions, the result of the sequence analysis is presented and discussed. Finally, the result of the eight interviews is discussed, linking to the social network analysis and sequence analysis, and adding further theoretical understanding of the governance of EU Sustainable Finance.

### 5.1 The Sustainable Finance network at EU level

While the sustainable finance network at EU level has become increasingly crowded and has expanded in recent years, it is still per definition characterised as thin. At the thin transnational level, professionals have the possibility to decouple from organisational demands in order to gain issue control. Professionals can do so by drawing on different pools of knowledge and engaging in epistemic arbitrage. However, organisations can also use the thin transnational space to its advantage, for instance by engaging in mission creep. Transnational governance therefore takes place through two-level networks, where both professionals and organisations strategically compete and collaborate for issue control.

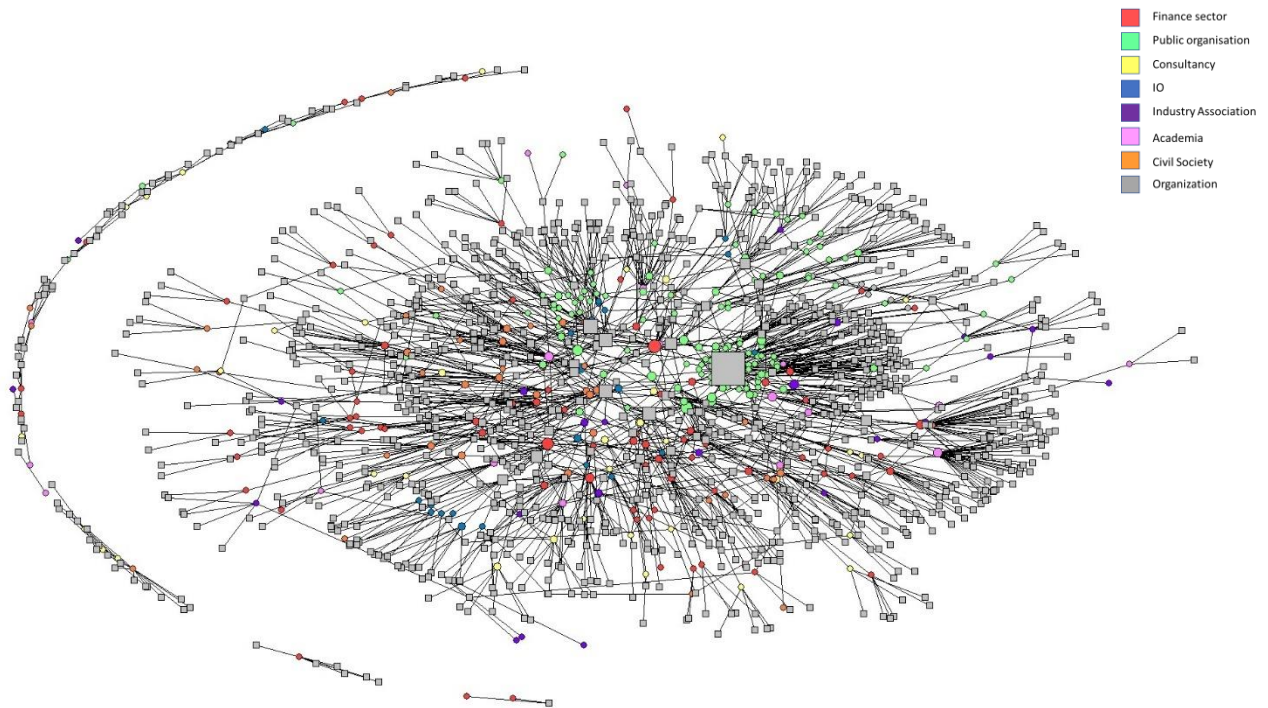
The EU Sustainable Finance network consist of 1487 nodes in total, of which 379 are professionals and 1108 organisations. When visualizing networks through the NetDraw application in R, the network is first depicted with all available information, including the name of each actor and organisation. Since the EU Sustainable Finance network is a rather large network, the untreated visualization does not provide an aesthetically pleasing or analytically intuitive visualization (see appendix 1.0). To make the network visualization more intuitive from an analytical perspective, I have treated the network by turning off all labels, creating a visualization of the full network as depicted below. Here, the actors are pictured as red circles and organisations as red squares.



*Figure 6. The EU Sustainable Finance network*

Although difficult to perceive with the bare eye, this network is characterized by low density (0,003). This is typically the case at the thin transnational level (Hasselbalch 2016). Low density transnational issue networks are generally more prone to be characterised by structural holes (Burt 1985, 2010). Recalling that occupying structural holes is an important professional strategy for issue professionals seeking issue control, this opens for competition and contestation over how sustainable finance should be treated at the EU level. Professionals also have an incentive to occupy structural holes and take on a gatekeeper role, by excluding opposing ideas on how the issue should be treated (Burt 2004; Seabrooke 2014).

The EU Sustainable Finance network consist of a large inner network, comprising of a mix of organisations and actors. In addition, it consists of several completely detached ecologies formed around its fringe. Whereas some of these only consists of one actor and his/her linked organisational affiliation, some are made up of a couple of actors and organisations. These fringe nodes can be considered as less powerful within the EU Sustainable Finance network, given that they have no ties connecting them to the full network. Information is not easily diffused to them from nodes in the rest of the network, and their own means of exercising power to influence the EU Sustainable Finance agenda is limited. Therefore, the main focus of the analysis will be directed towards the inner network.



*Figure 7. The EU Sustainable Finance network. Node size dependent on Betweenness centrality and colour dependent on affiliation*

Adding attributes to the network further increases the amount of information that can be retrieved from the network visualization. In network above, attributes have been added to the data set, categorizing the actors' affiliations. While organisations are picture as grey squares, the actors have been colour coded according to their affiliation. It should be noted that several actors in the network have multiple affiliations, however the coding has been made to capture their main affiliation of the actor. From the network visualization it is evident that the network is populated by a mix of actors from the financial sector, national or international public organisations, private sector consultancies, IOs, industry associations, academia, and civil society.

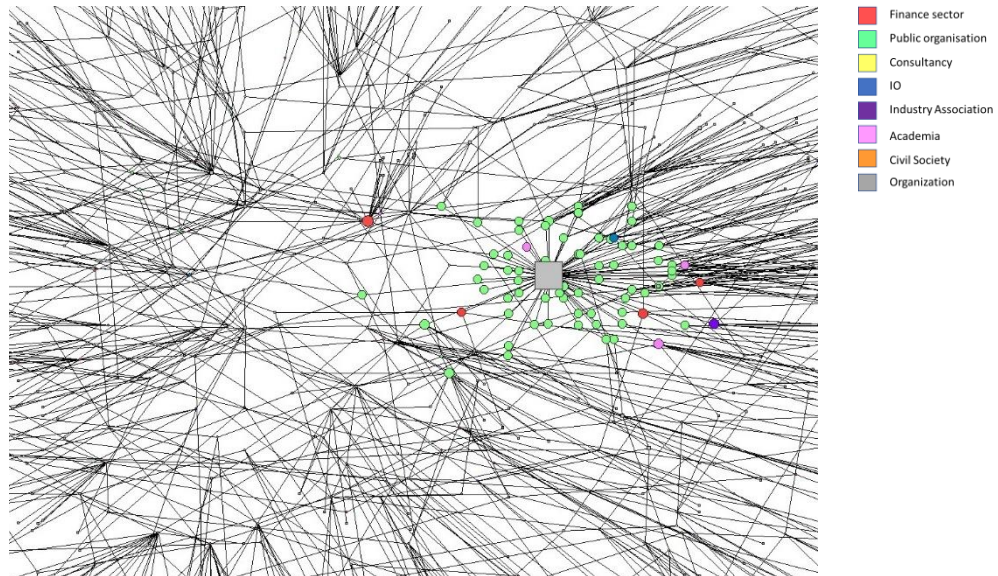
Setting the node size according to its betweenness centrality allows for visualization of the most central nodes in the network. The visualization above shows the full network, with node size dependent on betweenness centrality and node colour depending on affiliation. As discussed, Betweenness centrality measures how important a node is to the shortest path through the network (Freeman, 1978). In a sense, it can be seen as a way to measure influence in the network, where high Betweenness centrality indicates high control over information diffusion.

The visualization clearly depicts a handful of highly influential organisations and actors in the network, which all are located at the centre of the EU Sustainable Finance network. Having high Betweenness centrality is important in several aspects. Not only does it mean that these actors will be reached by important information at an early stage and have easier access to advice than less central nodes, but it also allows for professionals to take on brokerage roles. As a broker, professionals have influence over how ideas and information is understood and translated between the different communities in the network (Burt 2004).

In line with the theoretical assumptions on ecologies of profession (Abbott, 2005), these different colours also represent different ecologies in the EU Sustainable Finance network. In the visualization of the network, two green clusters of actors can be seen in the centre-right and centre-left of the network. Actors from the other ecologies are more diversely spread across the network. The green clusters represent professionals working in public organisation in policymaking roles, i.e. the policymaking ecology, and it should be noted that these mainly tend to be affiliated with the EU institutions. Taking a closer look at the network shows how the centre-right green cluster is located between the node representing the European Commission and EU institutions such as ESMA and the EEA. The second green cluster to the left, albeit smaller than the first, is centred around the EIB and the OECD. Actors from other ecologies, such as the finance sector, private sector consultancies or civil society ecologies, are more evenly distributed across the network. These nodes do not make out any easily visible cluster in the network. The exception is the academic ecology (pictured as pink nodes in the network). While the actors are represented by a dispersed group in the network, they are mainly located to the right, i.e. in connection to the public institutions ecology rather than the private sector or NGOs.

While Betweenness centrality is a measure of control over information flows, Eigenvector centrality measures influence of a node in relation to its neighbours (Marin et al. 2016). Visualizing the network with the node size set to eigenvector centrality, allow us to zoom in on a group of highly influential actors close to the power centre in the network (Figure 8).





*Figure 8. Zoom in on part of EU Sustainable Finance network depicting the most central nodes based on Eigenvector centrality*

First of all, on the organisational side, the European Commission (pictured as the grey box in the centre) is clearly the most powerful organisation in the network. This is not surprising, as this research deals with a Commission initiative and appointed expert groups. Following this, the most central actors as seen to Eigenvector centrality are all located in close proximity to the European Commission. The majority of these actors are represented by green nodes, indicating that their home turf is in the policymaking ecology. The majority of these actors are affiliated to the European Commission themselves and working in high level positions in for example DG FISMA. However, nine of the highly central actors (seen to Eigenvector centrality) are located in other ecologies. These nodes are particularly interesting to focus on. This is done by visualizing the individual, ego networks of three of these non-EU affiliated actors as an illustrative example.

I first zoom in on Christopher Knowles (Figure 9). He is one of the actors outside the EU sphere who is highly influential in the network. He is also represented by the red node at the furthest distance from the European Commission in the network. Based in Luxembourg, Christopher Knowles is a retired senior expert of the EIB who now is affiliated to the finance sector through various board and advisory positions. His close proximity to other highly influential actors in the network in addition to being linked to several ecologies gives him an

opportunity to act as gatekeeper in the network, having the power to decide which ideas are brought to the table and not. He is also a case example of a multiple insider at the structural fold, being a member of several cohesive groups (Vedres and Stark 2010).

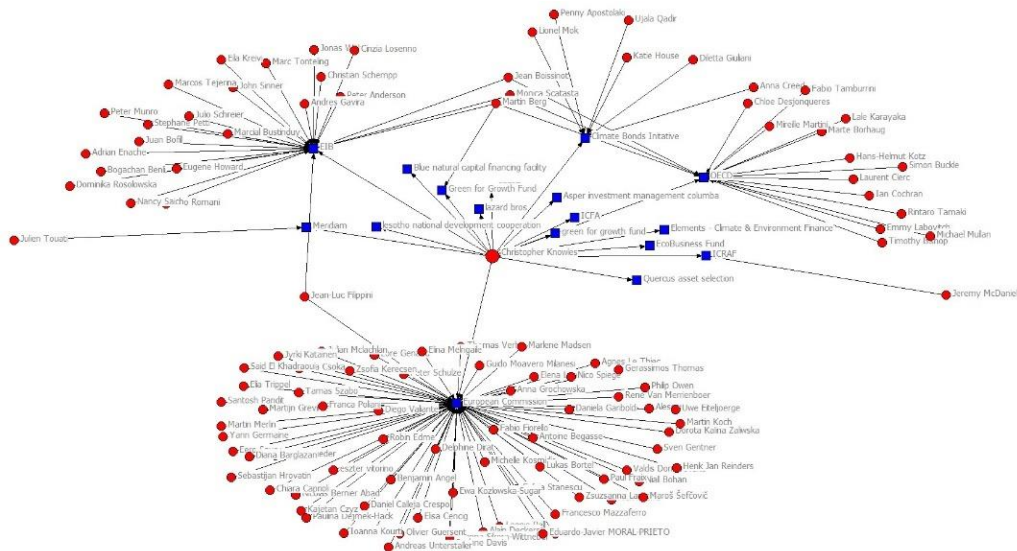


Figure 9. Ego Network for Christopher Knowles

His main affiliation has been coded to the finance sector, due to him being an advisor to several investment funds, while in reality he does not have just one main affiliation. Rather, he is in fact working as a non-executive director on the board of a number of investment funds, in addition to having a seat on the advisory boards of several other sustainability initiatives, such as the Climate Bonds Initiative, the OECD Centre for Green Finance, the World Agroforestry Centre and the Coalition for Green Capital.

Similar tendencies can be seen for Eszter Vitorini and Kajetan Czyz. Eszter Vitorini (Figure 10) is a typical example of an actor who is able to link different ecologies together. Her main affiliation lies with Kempen Capital Management, where she is employed as Senior Responsible Investment Advisor. She is also affiliated to the NGO BlueO2 as a board member. While she is now working in the finance sector, she has long and extensive experience from the civil society. As a result, she has the possibility to take on a brokerage role by engaging in epistemic arbitrage, playing off difference in knowledge between the finance sector and civil society.

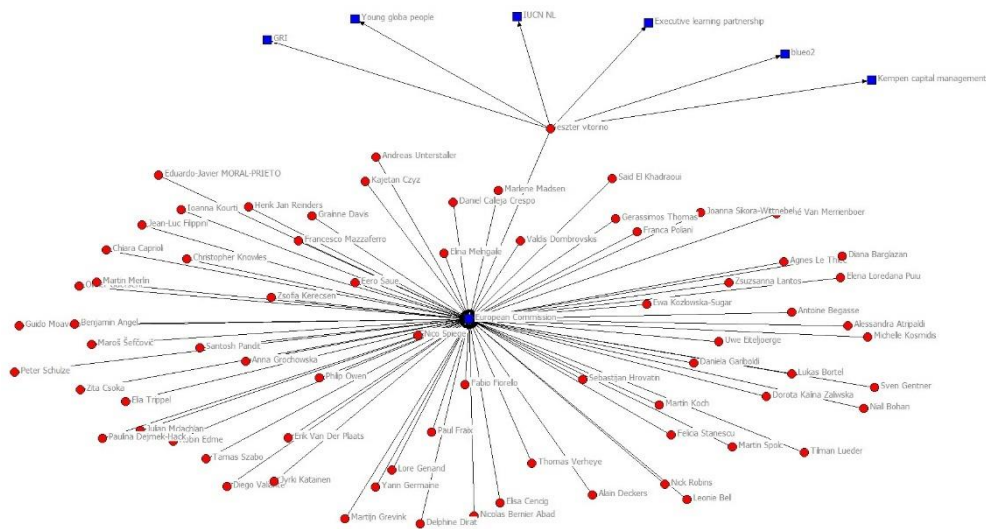


Figure 10. Ego Network for Eszter Vitorini

A similar trajectory can be said for Kajetan Czyz, program director at CISL at Cambridge University (Figure 11). While working in an academic institution, his background is not in the academic ecology, but rather from the finance sector, rating agencies and NGO initiatives such as Climate Bonds Initiative. This also gives him the ability to engage in epistemic arbitrage, becoming a broker in the network. Unlike Christopher Knowles however, neither Eszter Vitorini nor Kajetan Czyz can be considered as multiple insiders at the structural fold. Rather, they represent how professionals occupy structural holes between ecologies and engage in epistemic arbitrage, while Knowles in a sense represent the archetype of a professional being able to draw on knowledge between multiple ecologies as-well as exert influence within.

Evidently, network position and having a wide network play into the ability to exercise influence over the EU Sustainable Finance network through expertise and knowledge. Hence, the next section will elaborate further on the importance of betweenness centrality and its implications on who has influence over the EU Sustainable Finance network, by directing the attention to the Top 50 most central actors and organisations of the network.

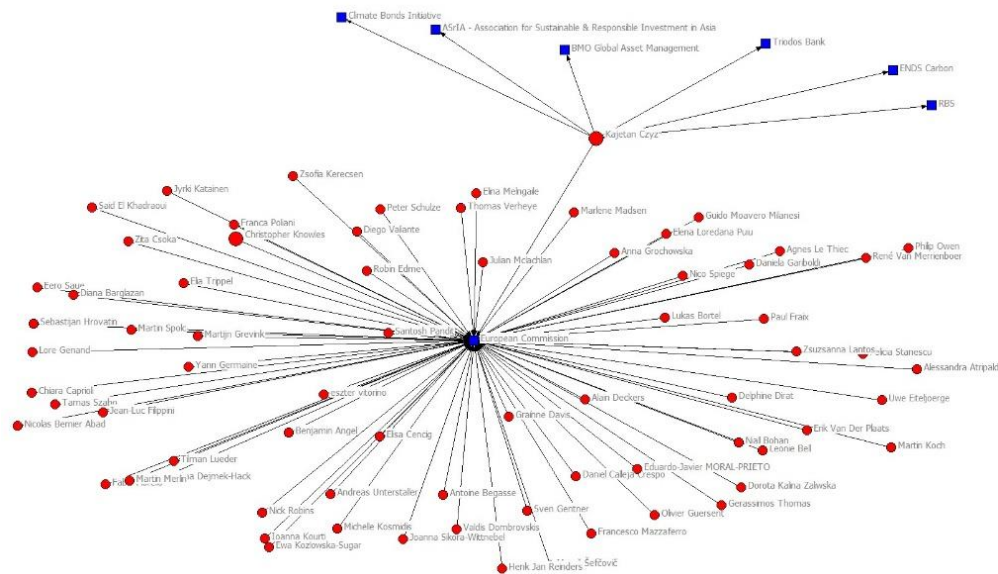


Figure 11. Ego Network for Kajetan Czyz

#### 5.1.1 Professional strategies for issue control

While the visualisation help illustrate over-all network structures, it does not allow for a more detailed depiction of the most central actors and organisations. Calculating Betweenness centrality for the network actors and organisations respectively help shed a light on the individual entities centrality and allows us to calculate a Betweenness metric score for each node. Unlike the calculations conducted for the above-mentioned visualizations, it should be noted that these calculations of Betweenness centrality are conducted for the agents and organizations separately. The metric score can therefore differ slightly in relation the node size in the visualization.

Policymakers	Finance professionals	Academics	Consultants	Civil society activists
26	10	6	4	4
52%	10%	6%	4%	4%

Figure 12. Top 50 actors, professional distribution

The Top 50 actors consist of a mix of professionals from the finance sector, national and transnational public institutions, civil society, private sector consultancies and academia. There is however a clear over-weight of professionals in the policymaking ecology, mainly working in public institutions, among the Top 50 most central agents. In fact, over 50% can be found in policymaking in either a transnational or national public organization. The distribution among the rest of the actors is more balanced, with slightly more actors being

found in the finance sector and academia compared to consultancies or civil society, as pictured in table below. It should be mentioned that the categorization here is made on based on profession rather than formal job title, education, or affiliation. The table below shows the Top 50 most central actors of the EU Sustainable Finance network.

	Name	Betweenness centrality	Main affiliation
1	Christopher Knowles	5073,9	Asper Investment Managers
2	Robin Edme	3803,1	Cerema
3	Felicia Stanesco	3194,3	European Commission
4	Jean Boissinot	3117,0	Banque du France
5	Jean-Luc Filippini	2932,7	Council of the European Union
6	Steve Waygood	2859,4	Aviva Investors
7	Anna Grochowska	2100,4	European Commission
8	Evert van Walsum	2036,3	ESMA
9	Will Martindale	1996,1	UN PRI
10	Mireille Martini	1875,7	Autorité des marchés financiers (AMF)
11	Andreas Unterstaller	1840,8	EEA
12	Erik Van Der Plaats	1644,7	European Commission
13	Chiara Caprioli	1639,4	Luxembourg Stock Exchange
14	Santosh Pandit	1571,4	Bank of England
15	Diego Valiante	1542,0	European Commission
16	Olivier Guersent	1456,6	European Commission
17	Eric Dugelay	1432,0	Deloitte
18	Laurent Clerc	1414,4	Université Paris-Dauphine
19	Mette Sicard Filtenborg	1134,5	EIOPA
20	Lars Eibeholm	1126,0	Nordic Investment Bank
21	Marcos Tejerina	1042,3	EIB
22	Chantal Sourlas	1035,5	ESMA
23	Piotr Gałązka	1030,9	Polish Bank Association
24	Carsten Frank	1024,0	German Federal Ministry of Finance
25	Hans-Helmut Kotz	1006,4	Center for Financial Studies
26	Eduardo-Javier Moral-Prieto	964,5	ESMA
27	David HARRIS	949,6	London Stock Exchange Group
28	Philippe Zaouati	927,9	Mirova
29	Amélie de Montchalin	904,8	French Government
30	Ioanna Kourti	868,8	EBRD
31	Matt Christensen	857,8	AXA
32	Morgane Nicol	851,9	I4CE
33	Lars Overby	817,1	EBA
34	Marte Borhaug	805,2	Aviva Investors
35	Laetitia Hamon	801,8	KPMG
36	Andreas hoepner	794,7	University College Dublin
37	Benoit Leguet	789,7	I4CE
38	Lukas Bortel	773,0	European Commission
39	Karsten loeffler	769,3	Franfurt school of finance and management
40	Lale Karayaka	756,0	EEA
41	Elisa Cencig	749,5	AFME
42	Anushka Hilke	737,4	I4CE
43	Elina Melngaile	735,0	European Commission
44	Gráinne Davis	735,0	European Commission
45	Nick Robins	731,9	Grantham Research Institute on Climate Change & the Environment
46	Carlos Montalvo	721,8	PwC
47	Martijn Grevink	710,5	European Commission
48	Katharina Strohmeier	697,6	Financial Markets Authority
49	Roxana de Carvalho	693,3	ESMA
50	Peter Munro	658,4	EIB

Figure 13. Top 50 actors



As shown in the analysis of the full network, the most central actors from public institutions are mainly employed within the EU institutions such as the EU Commission or the EIB. Some do however have their main affiliation at national level. Robin Edme from the French public institution Cerema and Santosh Pandit from Bank of England provide a case in point of professionals who have managed to decouple from their national profession by being active at the transnational level.

The centrality metric scores of each actor should be noted. The most central actor seen to Betweenness centrality is once again Christopher Knowles. His centrality score is measured to 5073. This is significantly higher than the next most central actor Robin Edme, who's centrality score is measured to 3800. This trend can be seen throughout table, where the centrality metrics decreases rather quickly among the Top 50 most central agents. This is also underlined by the visualisation of how the Top 50 actors are connected in the EU Sustainable Finance network, where a few nodes stand out.

The network below visualizes the network of Top 50 actors, with node size set dependent on Betweenness. Calculating the network cohesion for the Top 50 actors show that this network is characterised by even lower density than the full network (0,002 compared to 0,003). Once again, the occurrence of structural holes, where professionals can take on a brokerage role, within the network is likely.

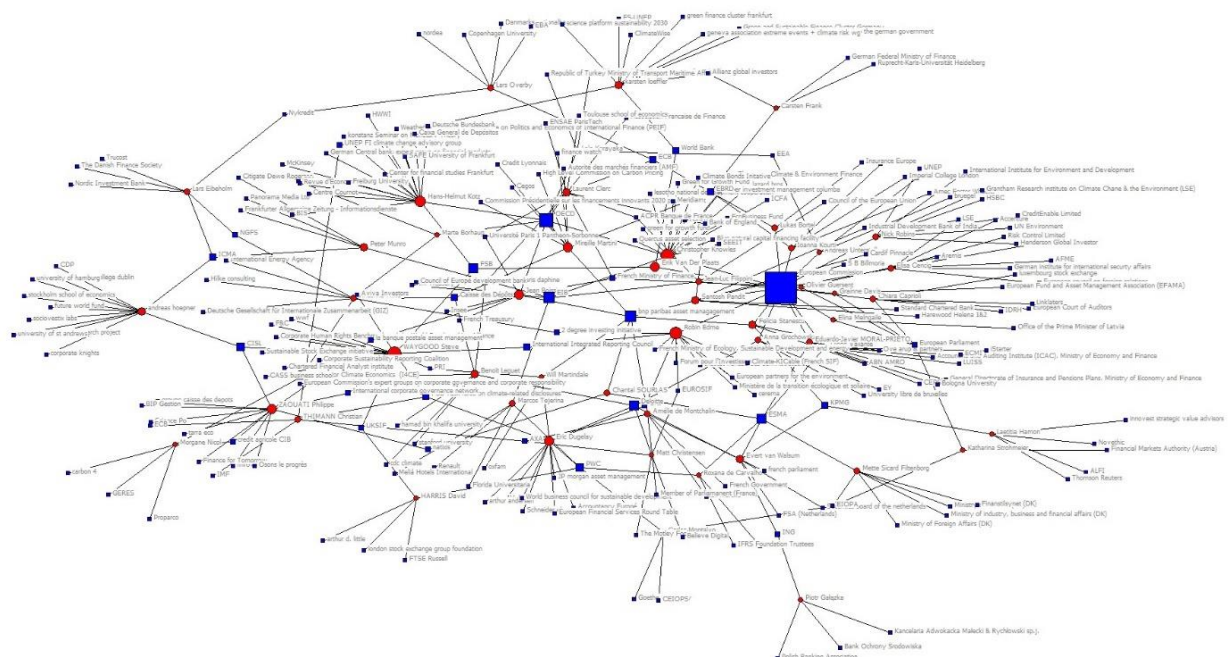


Figure 14. Network of Top 50 actors in EU Sustainable Finance, node size dependent on Betweenness centrality

The network visualization clearly depicts which professionals are most influential in the Top 50 network, as well as which venues and affiliation are most important to be a part of. The European Commission is once again the most central organization in the network, also for the Top 50 actors. The Top 50 organizations will be further elaborated in the next section, however a few conclusions about the Top 50 actors should be noted here. Considering the most central actors in relation to Betweenness centrality, it is evident from the visualization that having a wide network with ties to several separate but linked ecologies is key. The most central actors in the Top 50 is a diverse group of professionals from the policymaking, finance, consultancy, and academic ecologies. Among them are Christopher Knowles (Asper investment managers), Hans-Helmut Kotz (Goethe University), Robin Edme (Cerema), Steve Waygood (Aviva Investors), Erik van der Plaats (European Commission), Philippe Zaouati (Mirova) and Eric Dugelay (Deloitte).

An illustrative example is provided by looking specifically at the network position and linkages of Steve Waygood. He is strategically positioned within the network to take on a brokerage role. Waygood is employed at Aviva investors and well-connected in the finance ecology, however he is also a fellow at Cass Business school, making him a multiple insider in the network (Vedres and Stark, 2010). Being a member of more than one cohesive ecology enables professionals not only to access new information but also to build trust and gain access to diverse resources, by occupying both the structural hole between ecologies and structural fold within these familiar ecologies.

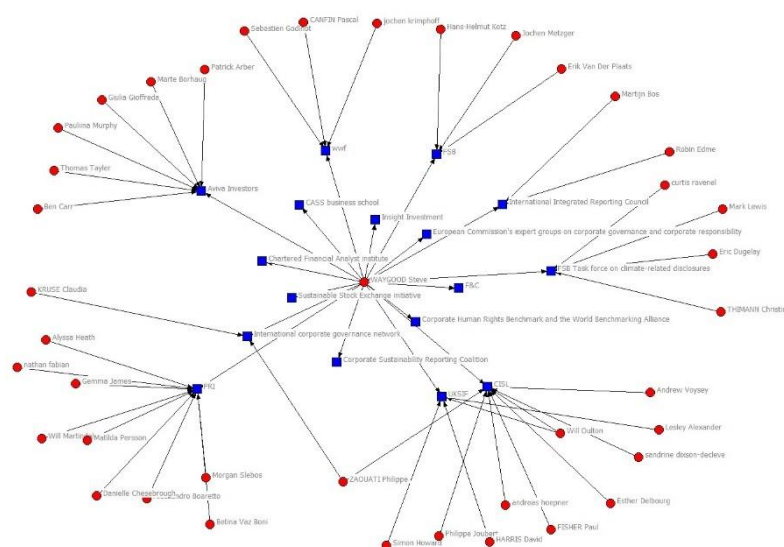


Figure 15. Ego Network for Steve Waygood

Waygood started his career in WWF and has been a part of the expert and advisory groups to the UN PRI and served as chairman of UKSIF. In addition, he holds a PhD from Cambridge University CISL. This illustrative example showcases the significance of mixed career trajectories as a professional strategy to gain issue control. Visualizing the ego network of Steve Waygood illustrates his position as an epistemic arbiter within the network. Having ties to several adjacent ecologies makes it possible to engage in epistemic arbitrage by drawing on knowledge from the finance, academic and the NGO ecologies, respectively. The ego network takes on a clear star-shape, which means that the main part of the other nodes must go through Waygood in order to receive or diffuse information from or to the rest of the network. Thus, Waygood occupies a strategic position within his network that allows him to gain control over information flows.

Knowing which actors are the most central is however only the first step in understanding how expert networks make authoritative claims in setting the Sustainable Finance agenda. Recalling the main assumption of social networks and transnational governance – professionals strategically interact with organisational opportunities to gain issue control. In addition, organizations themselves are not just empty vessels that behave in accordance with rational design theories. Rather, due to uncertainties in the external environment and bureaucratic pathologies, they also engage in attempts to gain issue control, for example by engaging in mission creep or crowding in order to gain legitimacy (Barnett and Finnemore 1999; Weaver 2008). In addition, organizations have the power to send staff to strategic events and venues, such as the HLEG and TEG, which not only provide professionals with increasing opportunities, but also provide organisational opportunities in terms of new knowledge and increased legitimacy (Seabrooke & Henriksen 2017).

#### 5.1.2 Organizational strategies for issue control

The EU Sustainable Finance network is comprised of 1108 different organizations in total. While the analysis is focused on the network in and around the HLEG and TEG, these groups have been omitted from the node list. The reason for this is twofold, and analytically intuitive. First, virtually all actors in the network will inevitably have a connection to either the HLEG or TEG as all have been consulted or involved in the process. Second, the mapping has been focused on affiliation links based on employment or board membership in organisations. While the HLEG and TEG formally are established EU expert groups, they can be considered as



events or venues rather than a formal organisation. Based on this, the HLEG and TEG has been excluded from the analysis. The Top 50 most central organisations (measured by Betweenness) consist of a mix of EU institutions, IOs, central banks, global professional services firms (GPSFs), asset managers, academia, institutional investors, and niche public-private and civil society initiatives.

	Organization	Betweenness centrality	Type of organisation
1	European Commission	181628,5	Public Institution
2	EIB	54989,3	Public Institution
3	Deloitte	51412,6	GPSF
4	OECD	48993,9	IO
5	CISL, Cambridge University	43881,0	Academic
6	BNP Paribas Asset Management	43740,2	Finance
7	ESMA	35506,2	Public Institution
8	The World Bank	31196,9	IO
9	PRI	28996,1	NGO
10	LSE	28510,4	Academic
11	ICMA	25896,4	Industry Association
12	EIOPA	25809,6	Public Institution
13	PWC	24693,2	GPSF
14	EEA	21531,6	Public Institution
15	EUROSIF	19830,5	Industry Association
16	KPMG	19493,8	GPSF
17	FSB Task force on climate-related disclosures	17094,2	NGO
18	Climate Bonds Initiative	17091,7	NGO
19	AXA	16940,3	Finance
20	Bank of England	16825,1	Public Institution
21	ACPR / Banque de France	16460,6	Public Institution
22	ABN AMRO	16234,5	Finance
23	2 degrees investing initiative	16082,4	NGO
24	FSB	15433,3	IO

25	Luxembourg stock exchange	15137,6	Finance
26	Institute for Climate Economics (I4CE)	14881,2	NGO
27	Climate-KIC	14770,9	NGO
28	Aviva Investors	13678,4	Finance
29	Oxford university	13408,0	Academic
30	Accenture	12236,6	GPSF
31	UKSIF	12058,8	Industry Association
32	Arthur Andersen	11422,0	GPSF
33	French Ministry of Finance	11370,0	Public Institution
34	European Climate Foundation	11153,3	NGO
35	International Integrated Reporting Council	10931,6	NGO
36	HM Treasury	10217,7	Public Institution
37	ECB	10010,3	Public Institution
38	McKinsey	9995,5	GPSF
39	EBA	9897,6	Public Institution
40	Allianz global investors	9295,8	Finance
41	EY	9254,4	GPSF
42	EBRD	8586,8	Public Institution
43	HSBC	8496,0	Finance
44	FTSE Russell	8190,1	Private sector Rating agency
45	Oliver Wyman	8153,1	Private sector Consultancy
46	Carbon 4	7189,7	Private sector Consultancy
47	SAFE University of Frankfurt	6488,2	Academic
48	credit agricole CIB	6392,4	Finance
49	E3G	6312,2	NGO
50	French SIF	6169,4	Industry Association

Figure 16. Top 50 organizations

Among the top most central organizations we find several EU institutions, such as the European Commission, the European investment bank (EIB), the European Central Bank (ECB), the European bank for reconstruction and development (EBRD), the European Environmental Agency (EEA) and the three European supervisory authorities (ESA's) for the financial markets; ESMA, EIOPA and EBA. Recalling that establishing the HLEG and TEG on Sustainable Finance is a part of the EU initiative to align the EU financial sectors with the Agenda 2030 and Paris Agreement, and to steer capital towards sustainable development and climate change action, it is not unexpected to find the European Commission at the centre of this network. The EU institutions, such as EIB, ECB, the EEA and the ESA's all occupy observer roles in the HLEG and

TEG process. In addition, they have played a key part in contributing with expertise in the process.

The Big 4 Accountancy firms, Deloitte, PWC, KPMG and EY as-well as top tier global consultancy firms McKinsey and Oliver Wyman, all occupy a central position within the network. Notably, so do also the former global accountancy firm Arthur Andersen, which was one of the Big 5 Accountancy firms until its collapse in 2002 (Suddaby, Cooper, and Greenwood 2007). Arthur Andersen's accountancy branch continued under the umbrella of Accenture, which also is central in the network. The power of GPSFs in diffusing ideas and engage in agenda-setting activities at the transnational level has been the subject of several recent network case studies, showing how these firms play an increasingly important role in transnational governance (Boussebaa 2017; Faulconbridge and Muzio 2017; O'mahoney and Sturdy 2016). These firms can be seen to engage in mission creep, expanding from its original mission scope of providing accountancy services, to now also engage in transnational policymaking and regulation by providing non-audit professional advisory services (Suddaby, Cooper, and Greenwood 2007).

Albeit in a slightly different manner, this has also been a strategy commonly employed by IO's and INGO's to increase their mission scope beyond their official mandate (Barnett and Finnemore 1999; Henriksen and Seabrooke 2019; Weaver 2008). In the sustainable finance network at EU level, influential IO's such as the OECD, the World Bank and FSB all occupy central positions. It should be noted that the FSB is reported separately from the FSB Taskforce on climate-related disclosures (TCFD). This builds on the view that these are separate entities, although interlinked, but with different claims to authority when it comes to sustainability. Case in point is that the FSB TCFD, with clear claims to authority in the climate-related finance sphere, occupies a more central position seen to betweenness centrality.

There is a clear geographical divide in the Top 50, where British and French financial institutions dominate central positions within the network. Among these are the Paris-based BNP Paribas, AXA, and Credit Agricole and London-based HSBC and Aviva Investors. The outliers are the Dutch investment bank ABN AMRO and German insurance provider Allianz. What unites them is however that all are global institutional investors, which can be considered as 'universal owners' These generally tend to have more long-term

investment horizons and diverse investment portfolios than commercial consumer banks, as they hold a large slice of the capital market.

The British and French dominance in the network is also evident considering the high influence of the Bank of England and Banque du France. The two Central Banks have both long been involved in sustainable finance. Bank of England's former governor Mark Carney was essential in the formation of the Network for Greening the Financial sector (NGFS). NGFS is a network of central banks committed to combatting climate change and increase sustainability. In addition, Mark Carney and François Villeroy de Galhau, Governor of Banque du France, have both chaired the NGFS, and in 2019 they warned against the risks of climate change towards the financial system in a joint statement (Bank of England 2019). Both central banks have also pioneered by including climate risks in their stress test of the economy (Thomas 2019). The central position by the French Ministry of Finance and HM Treasury also provide a case in point.

Recent studies have showed a push towards private authority in sustainability governance (Andonova, Betsill, and Bulkeley 2009; Thistlethwaite 2014). This is also the case in the EU Sustainable Finance network, where several public-private partnerships (PPP) and business-led initiatives are prominent in the Top 50. The main part are also niche initiatives, with a clear focus on the climate action and environmental finance. Among these are Climate Bonds Initiative, The European Climate Foundation (ECF), 2° investing initiative, E3G, Climate-KIC and the Institute for Climate Economics (ICE). It should be noted that PPP-initiative Climate-KIC was originally established by the European Commission's European Institute for Innovation and Technology and is EU funded (Climate-KIC n.d). The PRI and the FSB TFCF have long dominated the field of responsible investments and climate finance and both organizations occupy central positions in the network. While these initiatives can be considered as the UN's and G20's claim to authority over sustainable finance, these have also been developed as voluntary market-driven initiatives.

It is interesting to note that what all these initiatives have in common, in addition to resting on private authority, is the fact that they are constructed as network structures bringing together actors and organizations around sustainable, responsible and climate finance. The organizational strategy to carve out a space in sustainable finance has evidently proved successful and showcase the intricate networks that play into transnational

governance today. Finally, a tendency towards geographical concentration can be noticed also here – where 2°ii and I4CE are French initiatives while CBI and E3G both originate in the UK.

Similar characterisation can be applied to the central industry associations in the network. Among these we find ICMA as-well as the French SIF, UKSIF and the EUROSIF. The acronym ICMA stand for the International capital markets association, which is a membership organisation for firms in the capital market as-well as central banks, government institutions and rating agencies. Gathering over 600 members, their network reaches organisations and professionals across the globe. They are involved in the field of sustainable finance through its principles related to green, social and sustainability bonds (ICMA n.d.). Also gathering organizations and professionals in a network structure are the three Sustainable Investment Forums (SIFs), UKSIF, French SIF and EUROSIF. Their member organizations include several NGOs, financial institutions and GPSFs also present in the Top 50 organizational network, also connecting to the Top 50 professional network (EUROSIF n.d., French SIF n.d., UKSIF n.d.).

Notably, the main part of the academic institutions that occupy a central position in the organizational network are British elite universities; OxBridge and London School of Economics (LSE). The Cambridge Institute for Sustainability Leadership, CISL, of Cambridge University receives the highest betweenness score of the three, followed by LSE and University of Oxford. In addition, SAFE (Sustainable Architecture for Finance in Europe) University of Frankfurt is also a central organization in the network.

A two-level network approach to transnational governance suggests that organizations in two-level transnational networks are far from passive and empty vessels for professionals to navigate. Rather, they engage actively in the competition for issue control. While the European Commission is the most influential organization in the EU Sustainable Finance network, the mix of organisation with high influence in the EU Sustainable Finance network indicates that sustainable finance still is a contested field. Several different ecologies are still competing in the organizational space over who has authority over sustainable finance. In fact, the top five most central organisations are all very diverse, the European Commission, the EIB, Deloitte, the OECD and Cambridge University CISL, and draw on different forms of authority. Furthermore, it is significant to note that none of the top five central organisations are from the commercial finance sector, although the initiative is targeted at the finance sector.

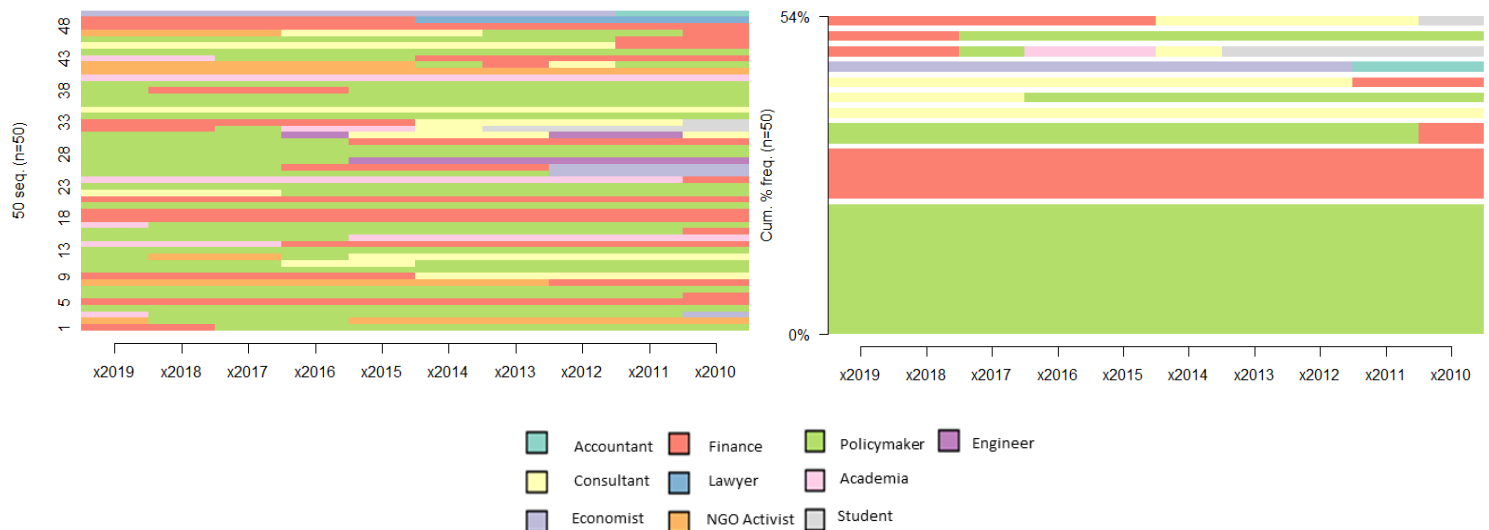
Still, the European Commission's advantage of being the initiator of the HLEG and TEG is reflected in their high Betweenness score. This does however not mean that their authority over sustainable finance cannot be contested. From the interviews, which will be elaborated on further in the consecutive sections, it is evident that the EIB had been working with sustainable finance before the EU initiative started. Having successfully defended their organisational claims to authority they have managed to occupy a very central role in the network, pointing to their high influence over the Sustainable Finance agenda at EU level.

The network analysis has underlined that building networks and alliances is paramount not only for professionals but also for organizations striving to make authoritative claims over sustainable finance at the transnational level. In addition, the findings support the statement that organisations are far from empty vessels for professionals to take advantage of. Rather, they are actively engaged in their own jurisdictional battle, where they strategically collaborate and compete for issue control. While this section has focused on the organizational network of EU Sustainable Finance, the next will turn back to the professionals. Applying sequence analysis to the Top 50 most central actors, the following section will further show how epistemic arbitrage is an important professional strategy for issue control and what role career sequences affect power structures within the network.

## 5.2 Career sequences

Sequence analysis in the social sciences is particularly powerful when wanting to understand why some actors occupy central positions within a network and in what way career trajectories play a part in this (Ellersgaard et al. 2019). Looking at the Top 50 most central actors in the EU Sustainable Finance network, it is wise to recall the main theoretical assumption that epistemic arbitrage occurs when professionals exploit opportunities between bodies of different professional knowledge. In other words, influential and well-esteemed actors within the system are likely to be able to play off knowledge from different issue networks (Burt 2004; Helgadóttir 2016). Those who become successful epistemic arbiters can have the authority to decide what knowledge is relevant for solving the issue at hand, in this case sustainable finance at EU level.

Conducting sequence analysis in R using the TraMineR package allows for visualising the career sequences at both individual and aggregated level. It should be noted that the sequences must be seen as a snapshot of the actors' careers between 2010-2019 and not their full career. Supplementing the sequence analysis by mapping the career length of the professionals, shows that the average career length is 20,04 years for the Top 50 network as a whole. Christopher Knowles, the most central actor in the network, has had the longest career (43 years), whereas the 7<sup>th</sup> most central agent Anna Grochowska has had the shortest (5 years). That the average career length is over 20 years indicate that the most central actors of the network are senior professionals in the field.



*Figure 17. Career sequences of Top 50 actors, plotted at individual (right) and aggregated (left) level*

The right-hand graph above shows the career sequences plotted at individual level whereas the graph on the left show the career sequences at the aggregated group level. While some actors have had completely stable career trajectories, not transitioning outside their current ecology, many others have moved between ecologies during the 10 years covered.

It is mainly professionals in the policymaking ecology that has had stable careers, visualised by the unbroken bright green lines, followed by professionals in the finance ecology, visualized by the unbroken red lines. If a professional in the policymaking ecology was to make a shift in their career, they tend to move into consultancy or finance ecologies. This type of revolving doors between the regulators and finance sector (or those who advise them) is a common theme in studies of finance sector professionals (Adolph 2013; Seabrooke and Tsingou 2020). Recalling the central position of several of the big global consultancy firms and financial institutions in the network analysis, this provide for an explanatory factor, where professionals move back and forth between a role in policymaking, finance and/or consultancy throughout their career. As a consequence, these professionals not only gain issue control, but the organizations also gain acceptance for their ideas as professionals diffuse them in organisations in linked ecologies (cf Adolph 2013; Helgadóttir 2016).

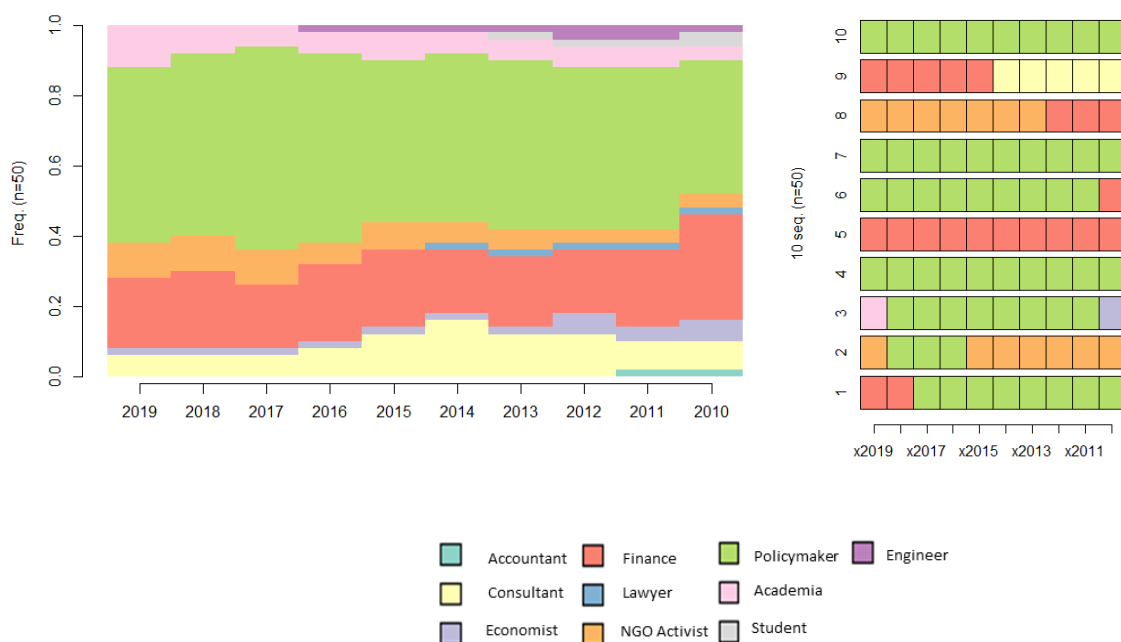


Figure 18. Career state frequencies over time among Top 50 actors

Figure 18 visualize the state frequencies over time, showing that many of the professionals at one point in their career find themselves in the policymaking ecology. The frequency of being in the policymaking ecology, as-well as academia and civil society, also increases over time. This in contrast to working in the legal, engineering or economist fields, which decreases over time.

The main benefits of sequence analysis in the TraMinerR package is being able to compare similarities and dissimilarities between sequences, investigating if there is any pattern to why some actors end up at central, and influential, positions of the EU Sustainable Finance network. This is done using the OM algorithm, which clusters similar sequences together and calculates a cost of moving between ecologies (A. Abbott and Hrycak 1990; Blanchard 2016; Seabrooke and Nilsson 2014).

Cluster 1 has clustered a group of 23 actors with long, stable careers in the policymaking ecology together (Figure 19). Taking a closer look at their careers, these professionals commonly work in the EU institutions, such as the European Commission, EIB or the ESAs. It should be noted that the majority of these professionals have high-level positions within the EU institutions and that the average career length in years for this group of professionals is 19,8 years. Some of the professionals have a background as economists or finance sector professionals, but the majority has stayed in policymaking for the past 10 years. Movement takes place mainly to the finance, consultancy, or academic ecologies. A tendency of revolving doors between the finance sector and private sector consultancy firms can also be noted in two of the cases during this period. Moving into academia is more common at later stages of their careers, reflecting the trade-off between capital income and esteem stemming well-respected academic institutions (Seabrooke and Tsingou 2020).

The second cluster consists of a group of professionals with unstable, mixed career trajectories with higher career entropy. This group of professionals have a much more mixed career trajectories than the first cluster. Here, the finance ecology is dominant, but not the norm throughout the careers. Although a few of the actors have had stable careers in finance, the majority tend to transition between different ecologies. In the most unstable of the career sequences, transition between ecologies takes place as much as five times between 2010-2019. This type of behaviour is common for issue professionals seeking issue control, as shown in recent studies. Having a mixed career background has been proved being particularly important in sustainability networks (Henriksen and Seabrooke 2016), while professional esteem stemming from training and affiliation, is key in economic and finance ecologies (Baker 2017; Helgadóttir 2016).



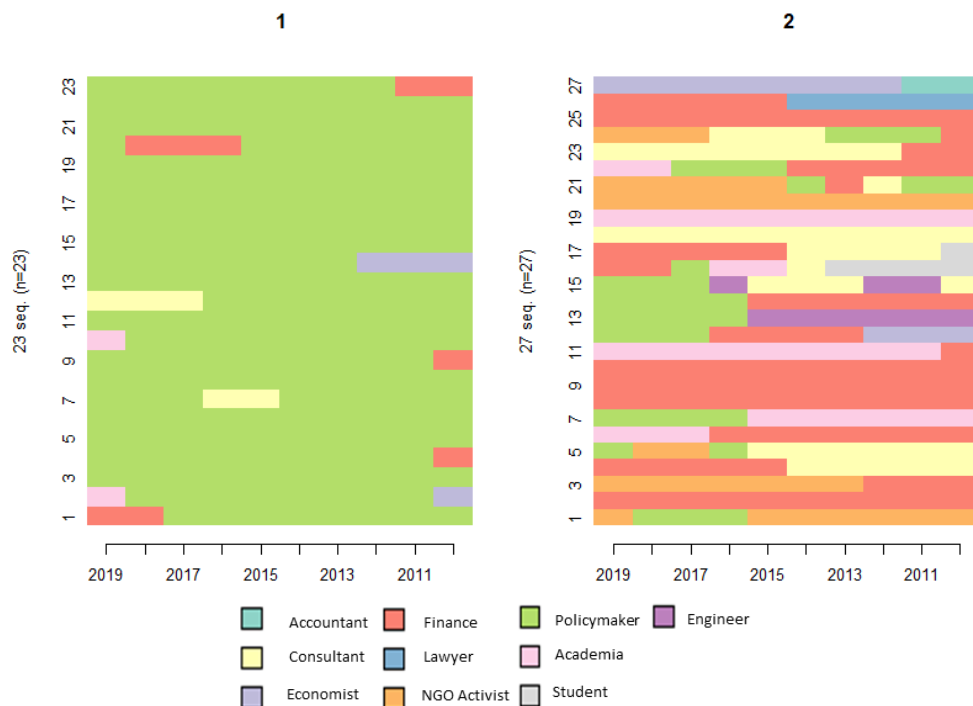


Figure 19. OM of Top 50 career sequences

*Cluster 1: Stable careers in policymaking. Cluster 2: Unstable careers mixed-career trajectories*

While the average career length is long also for this group (20,2 years), two of the professionals were still in university in the beginning of this period (coded as light grey). While these professionals have shorter career trajectories than the average, they have managed to take a central position in the Sustainable Finance network less than a decade later. These professionals both have mixed career trajectories, moving in between positions in consultancy, academia, policymaking and the finance sector. This indicates that having a mixed career is important to gain esteem and power within the Sustainable finance network particularly for young professionals.

Through the OM algorithm, the sequences are broken down one additional level by creating three clusters instead of two (Figure 20). The first cluster remains intact, consisting of the group of 23 professionals with long, stable careers in policymaking. However, an additional group of professionals with stable careers have been clustered into cluster 3.

This group consists of individuals with lower career entropy than the second cluster. The cluster consists of individuals with career sequences mainly from the finance sector, either in the beginning or towards the end of the sequence.

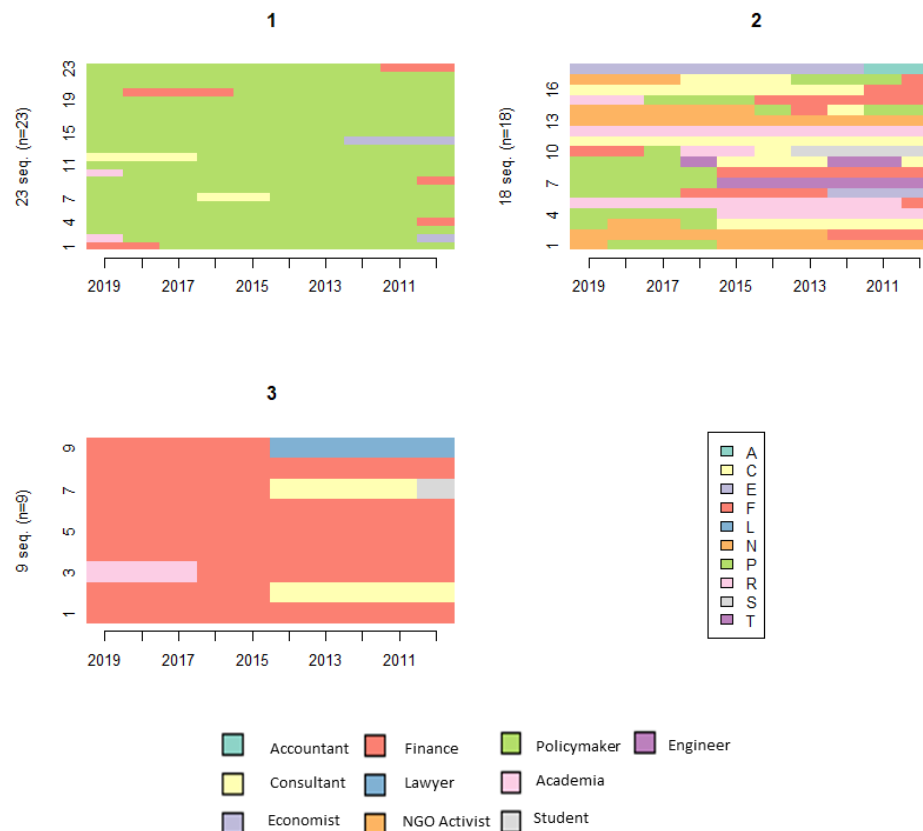


Figure 20. OM of Top 50 career sequences. Cluster 1: Stable careers in policymaking. Cluster 2: Unstable careers mixed-career trajectories. Cluster 3: Stable careers in finance

Applying OM to the sequence analysis shows that, within the Top 50, it is not only the policymakers that have stable careers but also finance sector professionals. This is particularly the case if compared to other private sector professions. Furthermore, both cluster 1 and 3 indicates a clear push towards the financial sector towards the end of the career sequences. Some have nonetheless started their career as economists, consultants or lawyers, consequently transitioning into finance at a later point of their career. Given the high average length of the career trajectories in total, this also indicates that the financial sector is good at attracting influential, experienced, and high-esteemed agents. Academia also pose an attractive destination for actors who have enjoyed a stable career in both policymaking and the finance sector.

The most unstable career trajectories can be found in the second cluster in Figure 21. This cluster consist of a combination of influential professionals with mixed careers in consultancy, engineering, academia, NGO activism and policymaking. Unlike cluster 1 and

3, the career entropy in cluster 2 is high, and some of the actor's transition from one ecology to another every other year. While no distinction can be made in relation to average length of careers compared to the other clusters, this cluster consists of the most diverse group of professionals. Moving between civil society, policymaking, academia, private sector consultancy, and finance is common.

A tendency of a push towards policymaking in the end of the sequences can be distinguished, particularly for the bottom half of the cluster. This cluster best represent the main theoretical assumption of professional behaviour in transnational networks, building on the idea that a mixed career trajectory is important, as a way to build hinges to linked ecologies and consequently gain issue control (Christensen 2020). In this case of EU Sustainable Finance however, mixed career trajectories seem to be important for network centrality mainly for the actors outside the policymaking or finance ecologies. Here, other forms of authority are at play. Hence, a distinction can be made between authority stemming from institutions (such as EU institutions) compared to authority stemming from expertise knowledge (accumulated through a mixed career).

The Entropy index show that the Top 50's career trajectories tend to stabilize over time, while more movement takes place early on (see appendix 1.5). However, the career entropy for the Top 50 starts to increase again in 2018-19 after several consecutive years of decreasing. This coincides with publications of the HLEGs and TEGs final reports, marking the end of the expert groups mandate. Although data would need to be collected over additional, consecutive years, this indicates that engaging in networks such as the HLEG and TEG results in increasing professional career opportunities. This strategy to build influence within a network has been highlighted in previous studies (Lazega et al. 2008). Engaging in the HLEG and TEG processes has consequently provided organizational opportunities for the most influential issue professionals to pursue. Those who have been successful in navigating the differences between organisations has managed to build and expand their professional network, as indicated in previous studies of transnational governance networks (cf Thistlethwaite and Paterson 2016).

The sequence analysis adds another dimension to the complex network of professionals and organizations who seek to influence how EU Sustainable Finance is governed. Moreover, it sheds a light on to which extent career trajectories affect

professionals' ability to become influential actors in the EU Sustainable Finance network. Building on the findings from the social network analysis and the sequence analysis, the following section will delve even more into the process of cooperation and contestation over EU Sustainable Finance.

### 5.3 Interviews

The social network analysis and the sequence analysis has shed a light on the micro-level power structures in two-level network of EU Sustainable Finance. To gain an in-depth understanding of how these processes of cooperation and competition are expressed at EU level, I complement the findings with qualitative interviews with some of the most influential actors of the EU Sustainable finance network.

In total, 8 interviews have been conducted (see appendix 2 for the full overview and transcripts). This is a small group of interviewees but an elite inner group in terms of influence over the sustainable finance agenda. The majority of the interviewed actors are affiliated the finance sector or public institutions. This composition follows the structure of the Top 50 central actors, however with a slight over-weight on finance sector professionals compared to policymakers.

<b>Name</b>	<b>Main affiliation</b>	<b>Profession</b>
Steve Waygood	Aviva Investors	Finance
Robi Edme	Cerema	Policymaker
Christopher Knowles	Asper Investment Managers	Finance
Elina MeIngale	European Commission	Policymaker
Marte Borhaug	Aviva Investors	Finance
Lars Eibeholm	Nordic Investment Bank	Finance
Ingrid Holmes	Federated Hermes	Finance
Elia Trippel	European Commission	Policymaker

*Figure 21. Table of conducted interview*

It should be noted that Ingrid Holmes (Federated Hermes) at the time of her participation of TEG was affiliated to the NGO E3G. While Ingrid Holmes herself is not represented among the Top 50 most central actors, E3G is one of the most central organisations in the network. In addition, she has been identified in the interviews as an influential actor in the network. Given her background from E3G she is able to provide an NGO perspective on how expert networks make authoritative claims in setting the EU Sustainable Finance agenda. Neither Elia Trippel (DG FISMA) is a part of the Top 50 most central actors. However, her interview is a result of reaching out to one of the most central actor Felicia Stanescu (Head of Policy and Coordination

at DG FISMA). As will be further elaborated in the analysis, Elia Trippel did however play a key role in the making of EU Sustainable finance and provide a valuable insight to DG FISMA's perspective on the process.

### 5.3.1 Conceptions of sustainable finance

Sustainable finance has undergone a massive transformation, from niche to a mainstream concept in the financial sector. An increasing number of actors are now engaging in sustainable finance, in one way or another. One of the interviewees describes how there was no such subject as Sustainable Finance when he started to become aware of the issue back in the 1990s. Rather it was a case of "prophets in their caves wearing hair shirt saying we have got to change our consumption patterns" (Christopher Knowles). Today it has however become almost completely, if not fully, mainstream and something that most policymakers, and financial institutions are talking about. A clear common theme in the interviews is though that the interviewed professionals have been working with or advocating for sustainable finance for a long time, often before the mainstreaming took place.

*"... Something you often see [...] in organizations when they first get into climate, they kind of start with a couple of lonely voices. I was one of the lonely voices in the EIB 15-20 years ago [...], but as time goes on more and more people get it and before you know every department in the organization suddenly has to have their climate and sustainability specialist and programmes... and this was part of the HLEG's initiation within the Commission."*

**– Christopher Knowles**

While the exact definition of sustainable finance diverges, the majority of the interviewees agree on a baseline concept of sustainable finance. Sustainable finance is needed in order to correct the current market failure of the financial markets. The underlying problem is in part based on wrongly based assumptions of growth, which ignore the planetary boundaries. The wide-spread acceptance of the Chicago school of economic thought is pointed out as one of the reasons for this, supporting a number of cases showing how economic ideas from the Chicago school of economics is reinforced through transnational networks (cf Dezalay and Garth 2002; Fourcade 2006, Babb 2001). In addition, there is still a widespread conception in the finance industry that sustainable investments are made on the cost of returns.

*"...You asked me how I would define genuinely sustainable finance. I will define it as investment that meets the needs of the present without harming the ability of future generations to meet their own needs. It's entirely based in the Brundtland definition."*

– **Steve Waygood**

‘Green’ issues, such as climate and the environment, are prominent in the definition of sustainable finance at the EU level. Social and governance aspects are not as widespread in the discussions. Still, both Steve Waygood and Marte Borhaug from Aviva Investors as-well as Ingrid Holmes from Federated Hermes take a more holistic approach to the issue and turn to the Brundtland definition of sustainable development when asked to define sustainable finance. This is a commonly agreed upon definition of sustainable development which has been adopted by the UN system, which encompasses a holistic approach to sustainability. It is also the reference point for the UN Agenda 2030 and the Sustainable Development Goals. To link advocacy campaigns to already existing instruments, such as Human Right Treaties, is a tendency that generally occurs among NGOs and civil society advocates (Finnemore & Keck, 1998; Keck & Sikkink, 1998; Carpenter, 2001). Still, the holistic approach to sustainable finance is not yet salient at EU level. Elia Trippel addresses this missing link to holistic sustainability in the issue definition of sustainable finance.

*“And generally, when we talk about sustainable finance we often use the term green. But that is more an issue of branding I would say, as we do look at sustainability holistically. [...] Even though, in the beginning, green was our main focus, just because of the urgency of climate change, so we kind of started with that. But we are trying to integrate the social aspect as much as possible.”*

– **Elia Trippel**

The main narrative is that unsustainable finance constitutes a systemic risk to the economic system as a whole. It is pointed out in the interviews that this narrative of ‘systemic risk’ partly was started by the Central Banks, and successfully established by Mark Carney of Bank of England. By defining climate change and unsustainable growth as systemic risks, the issue of sustainability and sustainable development was brought into the economist ecology, and later spilling over into the finance ecology. The discussion of ‘stranded assets’ and ‘climate risk’ clearly showcase how sustainability has found its place in the finance ecology and terminology.

*“[The finance sector] didn't really recognize their part in it. For a long time, it was seen as a debate among rather sophisticated macro- economists. That started to change with Mark Carney and Bloomberg and in the last five years you have had a widespread and still growing awareness that actually there is there's real systemic risk.”*

– **Christopher Knowles**

The narrative of sustainable finance as an opportunity is less apparent in the interviews, although it is present. The interviewed market participants highlight how the market opportunity of sustainable finance increasingly is making its way into the discussions today, highlighting sustainability as a business driver. While not completely mainstream yet, it is a new niche in sustainable finance which is moving from a quantitative numbers game to actually being more focused on creating positive impact in the underlying assets, i.e. in the real economy.

*“And there is this other sort of shift that is happening within the industry, at least within the progressive end of the industry, which is to move away from a focus on ESG issues and risk and mitigating risk into this space, which is more around trying to create positive impact. And that's a new front has been opened up.”*

**– Ingrid Holmes**

Moving into this new frontier might have implications on who has authority over sustainable finance, as it then leaves the quantitative and cost-calculating real of finance professionals and economists and rather enters the world of development and NGO professionals. As the sustainable finance space is becoming more crowded, this can be seen as a professional strategy to carve out new markets and expand the field. This narrative can also be noticed from the Commission side as-well, where sustainable finance is a matter of both risk and opportunity.

*“The way we tend to split these two is to talk about greening finance, which is about making sure that financial tools and frameworks take into account ESG considerations, meaning risks and opportunities, but also financing green, which is the aspect of redirecting capital flows towards green investments.”*

**– Elia Trippel**

Being able to translate sustainable development into the business sphere and communicating the business case of sustainable finance has proved key in this development. This goes beyond pointing to the systemic risk of unsustainable financial conduct, but also to the market opportunity as-well as highlighting the moral aspect of doing the ‘right thing’. Key is the ability to be able to showcase that there is a link between sustainability and growth. As noted in the interviews, the aim is to make sure that doing the right thing for society and nature also is sustainable as-well as profitable. As emphasized in the interviews, sustainable finance is clearly a long-term concept. The long-term nature of issue scope reflects the key stakeholders also in the professional-organizational network, particularly the Central Banks and

institutional investors. Sustainable finance as a concept is thus better suited for the investment universe of universal owner and institutional investors. The development has been driven by the asset management community as well as Central Banks, while the institutional investors jumped on the train slightly later. While the scope of sustainable finance has evolved considerably, not all are convinced that it yet has changed to over-all practices in the financial sector. Taking real action still seem to be located to a few, progressive first movers.

*“The scope of the sustainable finance has considerably evolved. But is it in the genetics [and] in the mindset of the actors? I'm not sure. When I say not sure, you know, it is a British understatement. I'm sure it's no.”*

**– Robin Edme**

What is evident however, is that sustainable finance has gained much attention in the EU policy discussions in recent years. As underlined by Robin Edme, the regulators and Central Banks are much more involved today than previously. In fact, he states that only a couple of years ago he was forbidden to talk about green money policy when holding training sessions for the Banque de France on sustainability. Today however, sustainable finance is high on the policymakers' agenda. This growing public interest marks a shift from the previously increasing private authority in sustainability governance.

### 5.3.2 EU Sustainable Finance

On paper, the Commission took the first step towards an EU approach to sustainable finance, when the then newly elected Commissioner for the finance portfolio, Valdis Dombrovskis, mentioned it in one of the hearing sessions with the EU institutions. This was back in 2017, after the former Commissioner Jonathan Hill, a Brit, had resigned his seat due to Brexit. While the discussions were already ongoing in other fora's, Hill or possibly someone in his cabinet had acted as a gatekeeper for the EU financial regulation agenda by shutting sustainable finance out. After Dombrovski's hearing, sustainable finance became one of the main policy initiatives for his cabinet. However, according to the interviewees, the road towards an EU approach to sustainable finance started much earlier. While the accounts diverge, the issue of sustainable finance emerged earlier than 2017, with mainly market-based initiatives moving on the issue way before the EU Commission did. The development of green bonds and the green bonds principle for instance, started as a market-based initiative back in 2013-14, as noted in the interviews.



The key part played by Valdis Dombrovskis should not be downplayed. As the Commissioner overseeing the finance portfolio, Dombrovskis has played a key role of lifting sustainable finance to the top of the Commission's agenda. Buy-in also came from Juncker's cabinet according to the interviews.

Professionals within the EU institutions have also pushed forward the agenda. The fact that the EIB for instance long has been involved in sustainable finance, is highlighted in some of the interviews. Coming from the development bank perspective, they have claims to being the worlds' first issuer of a green bond, as-well as having developed a green taxonomy way before the EU taxonomy was considered (Mertens and Thiemann 2019). Furthermore, DG FISMA, the department responsible for the EU Sustainable Finance initiative within the Commission, first started working on the issue following the G20 green finance study group in 2016. This group had already done a comprehensive overview of the potential scope of sustainable finance. In the beginning, sustainable finance was set up as a small project team consisting of four or five people from DG FISMA. The professionals involved had to work hard in order to expand sustainable finance within the organization.

*"It has grown massively. [...] I was supposed to dedicate I think 20% of my time to it. It turned into 100% and I was doing everything else I was supposed to work on kind of on the side [laugh]"*

**– Elia Trippel**

A key network of professional and organizations has however contributed to pushing the Commission taking on the issue and establishing the HLEG in 2016. The actors recognize that major advocacy efforts underpin the adoption of a Sustainable Finance agenda by the EU. The professionals involved at this stage can be considered issue entrepreneurs rather than issue professionals, in the sense that they engaged heavily in advocacy campaign for issue adoption, rather than cooperate and compete for issue control (Carpenter 2007; Seabrooke and Tsingou 2014). While several NGOs reportedly have been pushing for the issue to be put onto the EU agenda, so has financial institutions. Aviva Investors for example published a "Sustainable Capital Market Union report" in 2014, directed at EU policymakers and advocating for the inclusion of the sustainability aspect in the Capital markets union (Aviva, 2016). Furthermore, in their effort to put sustainable finance on the EU agenda they lobbied and advised the Commission in setting up an expert group on sustainable finance and the helping with the set-up and composition of the group.

*“We were working with the European Commission and the European Parliament on these issues and as part of that we were encouraging them to set up an expert group as a way to focus the efforts.*

– **Marte Borhaug**

Professionals involved in advocating for the setup of an expert group were also later among the selected members of the HLEG. This goes to show how carefully navigating the two-level network of transnational governance not only is effective in influence the agenda, but also how it is possible to carve out a market for services, which further strengthens claims to authority over the agenda.

*“We did talk to the Commission about the importance of having people from across the whole spectrum involved, from finance institutions to central banks. We did contribute to shape the formation of the group”*

– **Marte Borhaug**

The benefits of taking a multi-stakeholder approach is acknowledged by the professionals of the sustainable finance network, who pushed for having a diverse high-level expert group with experts from across the whole spectrum of stakeholders. This underlines the value of the professional strategy to seeking alliances within linked ecologies in order to create hinges (Abbott 2005). Establishing an expert group also helps build institution by having to publish a report that the Commission then must comment on.

*“I talked to him [Christian Thimann, Chair of the HLEG] at some length about what the composition of this group should look like. [...] He didn't have to be persuaded too hard, but I was very emphatic that while it was important to have people out of the civil service world, the regulatory world, policy world, it was also very important to have practitioners, people who are actually doing it out of the out of the financial community”*

– **Christopher Knowles**

The work of both the HLEG and the TEG has been accepted as hugely successful, and several of the professionals emphasize that it has been one of the highlights of their careers. This is underlined, also in the interviews, by the fact that the Commission adopted the HLEGs recommendations in almost its entirety in their Action Plan on Sustainable Finance (2018). However, it should also be noted that the professionals and organizations involved, the EU Commission included, have an interest in emphasizing the HLEG and TEG as both successful and ground-breaking. In doing so, the actors attempt to further strengthen their control over how sustainable finance should be treated and who has authority to do so. Although the

European Commission has strengthened their control over sustainable finance through this process, the field of sustainable finance is still contested. Since the publication of the Commission's Action Plan and the reports by the HLEG and TEG, several initiatives have been initiated.

*"As soon as we published the action plan, suddenly, they all started mushrooming. You have the UK Green Finance Taskforce; you have the Canadian Expert Panel on Sustainable Finance. Almost every major jurisdiction, suddenly within a year of publication of the action plan, also started taking steps in this area."*

– Elia Trippel

### 5.3.3 Expertise and knowledge in EU expert groups

*"I think it's a great thing that the Commission can actually use the power of expert groups [...] for whichever problem [...] for example, when it launches new policies. The Commission can invite best international experts in the field, to help the Commission to develop new policy initiatives or consult on existing ones."*

– Elina Melngale

There is a clear consensus among the interviewees that expertise and knowledge possessed by the professionals involved of the HLEG and TEG were valuable resources in the process. First, some distinctions should be made between the two groups. First of all, the mandate of the groups were very different. The HLEG was, as its name tells, a high-level expert group. This group consisted of fewer members, many with similar background, and had a much freer mandate than the TEG. While the members were hand-picked based on their expertise and knowledge, much of this expertise relied on professional experience rather than scientific expertise. They were given the task by the Commission to develop a European roadmap for sustainable finance and essentially enable a reform of the financial system as a whole. This is also what the group came up with in their final report, outlining 10 recommendations which were adopted almost in its entirety by the Commission in the Action Plan.

*"It's in the name of the high-level expert group. [...] They were selected on the basis of knowing financial markets very well but being specialized in the sustainability aspects of financial services. [...] They had a very broad brief, which was to essentially help us develop a European roadmap for sustainable finance and to help us fundamentally reform the financial system towards sustainability."*

– Elia Trippel

The TEG on the other hand was formed as a technical expert group, with the mandate to translate the Action Plan into concrete proposals. Their tasks were less associated with setting

the sustainable finance agenda and more concerned with realising the roadmap already envisioned by the HLEG. This group was also larger than the HLEG and consisted of a more diverse group of experts, with niche expertise from different sides of the industry. The form of expertise valued here was in other words much different from the HLEGs.

*“The technical expert group had a very narrow brief and they were supposed to work on quite distinct tasks. So, they were selected differently, and some people were less senior. There were more technical experts in distinct areas of expertise [...]”*

– Elia Trippel

It is significant to note that it proved more challenging for the Commission to recruit members to the TEG, due to the specific requirements on technical expertise. In fact, the TEG had to launch additional calls for experts and hold several consultations rounds with market participants to gather the technical knowledge required for the reports. However, as Elina Melngale puts it when discussing the TEGs work on the Taxonomy, the focus on scientific and technical knowledge was needed to gain political traction for the proposal. By drawing on scientific expertise from different ecologies, the Commission managed to depoliticize sustainable finance.

*“So for the taxonomy, for example, it really needs to be based on science, because [...] we want to avoid having a discussion on whether “nuclear energy” is green or not. Although, since a number of Member States produce nuclear energy, this discussion was unavoidable in the Council. Taxonomy should be science- based otherwise it would be difficult to ensure that financial market participant, governments and other players who will use it, can really trust it.”*

– Elina Melngale

Several professionals employed by the European Commission were involved in the HLEG and TEG and in the process of producing the reports. One interviewee reflects on the strategy from the European Commission to build knowledge and expertise through the participation in the expert groups, by being present at the meetings and taking part of the expert knowledge. At the same time however, the Commission professionals acted as brokers between the expert group and the Parliament, exploiting the difference in knowledge between the two to build support for their proposal. In line with Radaelli (1999), the Commission seeks to expand its issue control vis-a-vis other European institutions, such as the European Parliament (Radaelli, 1999).

Participation in key events and meetings is a common strategy for issue control among professionals (Lazega et al. 2008). Not only do the participants bring their own expertise and knowledge to the table, but it also gives the opportunity to exchange knowledge with other participants and learn from their experience. As discussed in the interviews, this interaction increases the possibility to be at the forefront of the main development of sustainable finance. Hence, building new knowledge and expanding the professional-organizational network is considered as one of the main benefits of the participation in the HLEG and TEG. However, influence can also be exercised at a distance without being physically present at the HLEG or TEG meetings. Christopher Knowles for instance was neither a member of the HLEG or the TEG. Although invited, he has not been an official member nor present at the meetings in Brussels. Still, he is the most central professional in the EU Sustainable Finance network, both in terms of Betweenness and Eigenvector. This goes to show that the ability to exercise influence in these complex expert-organizational networks relies just as much on being perceived with esteem and having a wide network, than on having a seat at the table.

Similar strategies for issue control are exemplified by Robin Edme. At the time of the HLEG, he was affiliated to DG FISMA and therefore participating in the process in a supportive role rather as an expert member. Being on the 'outside', lacking the mandate to push for a more radical proposals, can limit the possibility to influence the agenda. Robin Edme does however have an extensive network in the field, as demonstrated by his high centrality score. To influence the EU Sustainable Finance agenda, he enlisted his ties to the NGO community on the 'inside' of the HLEG, in order to promote his ideas on how sustainable finance should be treated. This type of backdoor strategy of influence the transnational agenda has previously been showcased by Hertel (2006), in her case study of NGO campaigns on labour and economic right (Hertel 2006).

*"... Because I was not in a position to promote what I thought was best as a European public policy, I went through NGOs, [building] strong support from share action and WWF during the HLEG work stream."*

**– Robin Edme**

Christian Thimann's, chair of the HLEG, contribution to the process is also underlined in all of the interviews. Coming from the insurance sector, he had a thorough understanding of the institutional investors' perspective. In addition, he has a background as Director General of

the ECB, Economist at the IMF and being a member of UNEP and FSB expert committees. Thimann had also previously led similar expert groups at the ECB after the financial and economic crisis of 2008 and understood the regulatory process as-well. Crucial was also the fact that he succeeded to engage the full network of professionals in the HLEG to work towards the same goal. While the members of the HLEG came from large organizations as-well as expert organizations, they also had a network of people within their home organization that they could engage in the process. Due to this, Thimann managed to expand the network to also include experts and assistants working in the experts' home organizations.

#### 5.3.4 Influencing the EU Sustainable Finance agenda

*"There is kind of a natural selection of people who are more willing to push the agenda because they already work on these topics within their organisations. [...] And then of course, organizations that are specifically focused on sustainability in financial markets - they have been pushing this agenda quite a lot as well."*

– **Elia Trippel**

It is evident that the interviewees all know they are central actors in the network. The majority has been working with sustainability or sustainable finance for several years and, as shown in the sequence analysis, have extensive experience from the field. In addition, they have an extensive network of other professionals that they can discuss sustainable finance with and receive new information from. In addition, the professionals all describe themselves as-well as their network as highly motivated and engaged in sustainability and 'pushing the envelope' forward.

*"And obviously I have a network of people, acquired over the years and [...] we talk quite often, sometimes just a chat to be friendly, but if somebody has a new idea they often to want to bounce it off a trusted peer. [...] It is very informal. It is not very structured. It is people basically, who are committed to trying to move the envelope forward."*

– **Christopher Knowles**

Being driven by the willingness to do the right thing and reform the financial system fundamentally, rather than climbing the career-ladder, is a reoccurring theme among the interviewed professionals. In fact, several of the professionals mention that they have based their career decisions on where they can do most use and change the status quo. Both Steve Waygood and Ingrid Holmes mention this as a motivation in transitioning from the NGO-world and into the finance sector.

*“This is really where I dedicated my career to working within financial institutions, they are incredibly influential. Not just the companies that they own and the engagement that we can conduct but also how you help shape the policy environment within which they work. And that influence can be harnessed to do good.”*

– **Steve Waygood**

In a sense, sustainable finance experts at the EU level strategically engage both in creating hinges, through strategic alliances, as-well as creating avatars, as they move into the finance sector. Many NGOs do however have a challenging time making their voices heard at the EU level. This is exemplified by the fact that the general NGO community throughout the interviews is described as too political, too detached from how the real-world functions, and unable to comprehend how business (and finance) works in practice. Many professionals from the NGO community are also perceived as ‘pushy’ by those outside the NGO ecology. In a sense, NGO professionals in general tend to have been working more as issue entrepreneurs, advocating for sustainable finance to be taken on to the agenda, rather than de facto making authoritative claims to the EU Sustainable Finance agenda.

*“... One of our challenges is to try to get that cross sectoral dialogue going and I think because I'm able to think like a government person, think like a political adviser and think like a business person, I can talk to quite a wide group of people in a way that makes sense. So that just enables you to have more influence...”*

– **Ingrid Holmes**

The NGOs that have managed to become influential actors in the EU Sustainable Finance network are a mix of business-led initiatives and expert think tanks. As shown in the network analysis, they are mainly niche initiatives with a clear claim to expertise on sustainability *and* finance. In addition, the sequence analysis show that the professionals affiliated with NGOs have a mixed career trajectory. Following this, the issue professionals have been able to influence and shape the agenda by engaging in epistemic arbitrage between multiple pools of knowledge. The ability to being able to translate between different jargon and pools of knowledge is highlighted in the interviews, particularly in relation to the NGOs that have been successful.

*“The WWF representative [Pascal Canfin], he was an ex MEP. So he could speak the commission language and the NGO language [...]. Ingrid Holmes, she was well aware of the financial net. She now works in a financial services firm. She did not at the time. For NGO representative she was extremely well informed.”*

– **Steve Waygood**

This underlines the importance of being able to communicate to its intended constituency (the NGO community), while at the same time not being dismissed as extremist by the core network (cf Seabrooke and Tsingou 2014). Mentioned among the most successful NGOs in driving the sustainable finance agenda forward are the Climate Bonds initiative and 2° ii, supporting the centrality analysis from the network analysis. A large part of this is certainly attributed to the influence of some of their employees, such as Sean Kidney of CBI and Stanislas Dupree of 2° ii. Sean Kidney for example was a member of both the HLEG and the TEG. While neither is represented among the Top 50 actors, they are mentioned in several of the interviews as influential. These organizations are also private initiatives with various ties to organizations and actors from other ecologies, for example through their boards. Christopher Knowles is for example a board member of CBI, whereas Robin Edme was one of the founders of 2° ii. By creating these types of wide networks, the organizations are able to strengthen their claim to authority over sustainable finance at the EU level.

*“E3G [...] is very good at making a political case that is ‘en pointe’ in terms of setting out a case for action, and it is very good on the policy intervention side. If you look at an organization like Two degrees investing or Carbon Tracker, they are good at the financial analysis side of things. [...] financial institutions don’t tend to invest in the capability to do this detailed political analysis or future-proofed financial analysis.”*

– **Ingrid Holmes**

Moreover, the professionals have been able to engage in epistemic arbitrage by playing off differences in knowledge between the finance sector and NGOs, in order to carve out a space in EU policymaking and push the sustainable finance agenda forward. In this case, the professional strategies of the sustainable finance experts are well aligned with the organizational strategies. As shown by Seabrooke and Henriksen (2017), as-well as Barnett & Finnemore (1999) and Dezalay & Garth (2002) this is clearly not always the case in the two-level networks of transnational governance.

It should be mentioned that neither the list of the most influential actors or organizations was shared with the interviewees before or during the interview. Still, several of the organisations represented in the Top 50 are mentioned when asked which organisations and actors have had been influential in setting the sustainable agenda and driving it forward.



*“When Valdis Dombrowski came in, he needed something new. He picked up sustainable finance as one thing that could really make a difference. I therefore think that individuals like him really made a big difference. It’s the same with central banks where someone like Mark Carney as an individual has really played a crucial role driving a shift within the central bank community”*

– **Marte Borhaug**

While it clearly was the Central Banks with Mark Carney at the forefront who put sustainability on the finance agenda and Valdis Dombrovskis at the EU agenda, the EIB, World bank, PRI, E3G, AXA, Aviva, Allianz, 2° ii, Climate Bonds initiative, WWF, ABM Ambro, TCFD to name a few, are all among the organizations that are highlighted. An organisation mentioned as influential, which is not represented in the Top 50 simply because is it a part of the EU Commission, is DG Environment.

*“I think people underestimate a bit the involvement of DG Environment, because the idea of sustainable finance of course is to help direct private finance towards some of the things that they have been working on for decades. So, they've actually had people working in the area of sustainable finance long before DG FISMA started working on them.”*

– **Elia Trippel**

DG Environment have reportedly been working on sustainable finance for many years now, trying to push the envelope forward. It was however not until DG FISMA took on the issue that things started moving. Drawing on Carpenter, issue emergence tends to be more challenging when an issue span multiple network (Carpenter 2007). This is also the case for sustainable finance, which has one foot in the finance ecology and one in the sustainability ecology. While DG Environment might have been able to draw on sustainability networks, sustainable finance did not emerge to the top of the EU agenda until DG FISMA managed to engage the finance ecology.

### 5.3.5 Cooperation and competition over the sustainable finance agenda

*“I do not want to minimize the ambition of the report, but it was very difficult to go against the general movement at the time.”*

– **Robin Edme**

While the process of both the HLEG and TEG are described as well-functioning and good processes, they were not completely without contestation. The Green Bond Standard is an issue that was highly contested. Here, several initiatives already existed, such as the ‘Green Bond Principles’ and Climate Bonds Initiative’s Standard and Certification scheme for Green

Bonds (Climate Bonds Initiative n.d., ICMA n.d.). The 'Green Bond Principles' (GBP) had been initiated by a group of investment banks, including Bank of America Merrill Lynch, SEB, Credit Agricole, BNP Paribas and HBSC in 2014, and was monitored by ICMA. While this standard does not specify what is green, it was already a wide-spread scheme in the industry. In addition, Climate Bonds Initiative also have claims to authority over the green bond standard and certification market, having their own labelling scheme for green bonds. Founded by a mix of IOs, NGOs, financial institutions and private sector organisations, its partnership partly overlaps with the GBP's. Already having a claim to authority over how to govern green bond standards, this led to contestation within the HLEG.

*"There is obviously always a little bit of an agenda behind certain positions and stakeholders. [...] So, when they say; "But there's already a [green bond] standard out there, why should the EU come up with one?". That is clearly motivated by the fact that these guys are running the standards. You know, they want to capitalize on that. But that is always very easy to spot."*

– **Elia Trippel**

However, it lies in the interests of several of the actors involved in the network, who themselves issue green bonds, to actually have a green bond standard in place as it can encourage investments. In the end it was the green bond promoters who managed to gain issue control and the HLEG included an EU green bond standard in their report, commanding the TEG to work out the specifications. The outcome of the TEG resulted in a recommendation for a voluntary non-legislative Green Bond Standards, where external providers have the possibility to get a verification by the EU (EU TEG n.d.). This proposal can be considered as a win-win for all involved, as verification by the EU can be seen as a stamp of approval of external Green bond standards. In a sense, the proposal has managed to carve out a large market share for green bond issuers without changing the status quo for those who provide the certifications.

*"...I think [...] for the green bond standards, absolutely useless. Useless because you already had green bond standards, which were developed by an NGO Climate Bond Initiative"*

– **Robin Edme**

In addition, it increases the demand for professional knowledge on 'green finance', while the EU at the same time increases its issue control over the (global) green bonds market. By strategically cooperate and compete within transnational networks, professionals and

organizations have the possibility to influence the norm of how an issue should be treated. It also goes to show how cooperation and competition within two-level networks shape the transnational governance of EU Sustainable Finance.

*“We could not have achieved this without building alliances and collaboration, both with other investors, with companies, leading players and NGOs”*

– **Marte Borhaug**

Building alliances between professionals and organizations is paramount in order to influence the Sustainable Finance agenda. This is underlined by all the interviewed professionals, often stressing that broad alliances between various professionals and organisations from different ecologies is important. These can be both formal and informal, where some of the professionals have made it a strategy to build informal coalitions with likeminded actors around specific issues, seeking to advance the agenda.

*“... I've increasingly been finding that the most useful work we're doing in collaboration with others is through informal progressive Coalition's with likeminded asset managers, because now it's become a debate about what's possible.”*

– **Ingrid Holmes**

## 6. Discussion

This study has analysed how expert networks make authoritative claims in setting the Sustainable Finance agenda by analysis the case of EU Sustainable Finance expert groups. The analysis showcases the complex two-level network of professionals and organisations that influence how sustainable finance is treated at EU level. Tracing the careers of the most central agents in the network has also showed how mixed careers matters for professionals lacking institutional authority in order to gain influence in the network. The interviews have further corroborated the findings of the social network analysis and sequence analysis, approaching the interviews from a theoretical perspective. Following the analysis, which links the empirical findings to the theoretical framework, this section will further discuss the analysis and its general theoretical implications.

### 6.1 Expert Networks in transnational governance

Through the empirical case of two separate but connected EU expert groups on sustainable finance, the HLEG and TEG, this study shows how transnational governance of sustainable finance takes place in two-level expert network. Here, professionals and organizations

strategically navigate the network in order to gain issue control over how sustainable finance is treated at EU level.

Some main conclusion can be drawn from the analysis on how expert networks make authoritative claims over the EU Sustainable Finance agenda. First, considering the actors of the EU Sustainable Finance network, the analysis shows that it is professionals who occupy central positions within the network that have authority over the EU Sustainable Finance agenda. These strategic positions are derived from the ability to either act as a gatekeeper within the EU policymaking ecology or from being able to engage in epistemic arbitrage by occupying structural holes and broker professional knowledge between ecologies in the network.

Furthermore, in line with Lazega et al (2017), this is achieved by strategically creating alliances with professionals with complementary skills in order to extend their networks and influence. As the social network analysis illustrates, a large part of the Top 50 most central agents in the network can be characterised as multiple insiders in the network. These professionals are for instance affiliated to the financial sector, academia, and civil society instantaneously. It is therefore not only having the highest number of ties that matter, but rather having the ability to exploit structural holes in the network. In other words, Granovetter's (1973) theory on the strength of weak ties holds. This is also underlined by the fact that the Top 50 actors career entropy increased following their participation in the HLEG and TEG process. Participation in key events and networks can clearly create new professional opportunities for issue professionals, adhering to the notion that career opportunities more often stem from weak ties that span a wide network and not from strong ties to immediate neighbours (Granovetter 1973; Lazega et al. 2008). Here, the analysis shows how the most influential actors of the network are professionals who are multiple insiders at the structural fold, such as Christopher Knowles and Steve Waygood.

Similar strategies are implemented by organizations in the EU Sustainable Finance network. While EU institutions, due to their inherent institutional capacity, have large authority over the EU Sustainable Finance agenda, they are not the sole hegemon of the organizational space. For instance, the Big 4 occupy central position in the network, and particularly Deloitte, strengthening the claims of Suddaby and others (Suddaby, Cooper, and Greenwood 2007) on the increasing power of GPSFs in transnational governance.

Moreover, the analysis shows how several financial institutions, think tanks and industry associations have managed to gain authority over the sustainable finance agenda by strategically linking influential professionals through board membership to their organisation. This contributes to expanding Ramona Coman's work on how brussels-based think tanks expand their network in times of crisis (Coman 2018) and Diane Stone's work on think tanks as knowledge-brokers (Stone 2013a). In line with Coman and Stone, this thesis shows how think tanks successfully manage to expand their network by engaging in knowledge-brokerage between ecologies. In addition, and in here lies the expansion of Coman's and Stone's work, they also rely on the esteem of the influential actors and organizations they strategically link to themselves. In doing so, they manage to expand their network beyond its original scope and increase their possibility to make authoritative claims over sustainable finance at the EU level.

## 6.2 Knowledge and Expertise in EU Sustainable Finance governance

The analysis supports the theoretical assumption that knowledge and expertise is the key resource in order to gain influence in transnational governance networks. In line with Quack's (2007) and Seabrooke's (2014) conception, knowledge in this sense is a relational concept in constant flux. Furthermore, theories on transnational governance and social networks claim that mixed career is key for centrality, particularly in sustainability networks (Thistlethwaite, 2017; Henriksen & Seabrooke, 2016). In the case of EU Sustainable Finance, this claim is partly true. While central professionals from the private sector, civil society and academia tend to have mixed careers, professionals from the policymaking ecology do not. At the same time, a push towards policymaking in the end of highly mobile professionals career sequences can be observed. This indicates high authority for the policymaking ecology in setting the sustainable finance agenda, contradicting the trend in previous studies on the lack of public authority in sustainability governance.

I argue that this is in line with the main theoretical assumption of epistemic arbitrage (Seabrooke 2014). Professionals in the policymaking ecology have an informational advantage compared to other professionals, as they understand the regulatory nature of sustainable finance at EU level. The most central professionals in the policymaking ecology also have the possibility to act as gatekeepers within their ecology, defining which ideas are 'good' and brought onto the EU Sustainable Finance agenda. At the same time, they are able

to draw on expert knowledge from other ecologies by forming expert groups, such as the HLEG and TEG. Therefore, they are less dependent on being able to translate between ecologies and, consequently, less dependent on having mixed careers in order to become influential in the network. In addition, they are able to draw on the authority stemming from the EUs institutional power in relation to others, hence draw on what Quack (2007) defines as 'power with' in their claims to authority over sustainable finance.

Influential finance professionals are also more likely to have less mixed, and more stable careers. However, as the SNA shows, while these professionals might have their main affiliation in the finance sector, they are often multiple insiders in several, different ecologies. As a result, the actor is still able to engage in epistemic arbitrage and draw on their network ties to gain influence, even if their career trajectories are stable. Moreover, sustainable finance has not been settled on transnational level and therefore still draws on several separate ecologies at the same time. While knowledge is the main resource, it is relational and in constant flux. Therefore, what is perceived as knowledge might differ between ecologies as well as over time. Baker (2017) argue that in economics and finance as well as economic and finance policymaking, esteem, gained from training and affiliations rather than having a mixed career, is the most important capital in order to be seen as knowledgeable in professional networks (Baker, 2017).

This does not minimize the fact that the European Commission relies heavily on the use of expert knowledge to build legitimacy for their policy solutions towards their constituency. As discussed by Radaelli (1999) and Coman (2019) there is a high demand for expertise from EU institutions. As shown, the Commission enlists expert networks to increase its power vis-a-vis other European institutions, by depoliticizing the issue. Furthermore, by creating a fora for professionals and organisations with an interest in sustainable finance, they manage to build alliances with its constituency. By creating these hinges with adjacent ecologies, the European Commission seeks to govern how sustainable finance is treated at the EU level. In a sense, they engage in a form of orchestration to govern its target, the finance sector, where the intermediary is not one single organisation but rather with a network of influential organisations and professionals. It does however come at a cost, as the issue professionals and organisations are far from willing intermediaries, but rather strategic actors and enactors with an interest of their own.

Additionally, the analysis shows that who can make authoritative claims to the EU Sustainable Finance agenda is far from fixed. Rather, it is a process in constant flux, characterised of constant cooperation and contestation between professionals and organizations at the thin EU level. The contestation and following cooperation over the EU Green Bonds Standard provide an illustrative example of how sustainable finance constantly is shaped and reshaped at the transnational level. Furthermore, while sustainable finance has become more embedded into the finance ecology and interlinked jargon, this is constantly contested by opposing professional and organizational claims. This will likely have implication on who can make authoritative claims over the EU Sustainable Finance agenda in the future.

Professionals and organizations do however have strong incentives to maintain their network position and exclude opposing views. In the case of sustainable finance, it has been framed as requiring specific technical skills and expertise related to the economic system, the financial sector and climate and environmental issues. A case in point is provided by the missing presence of broad NGOs at influential positions within the EU Sustainable Finance network. In addition, having the right skills set it not enough, but rather it also requires the right 'motivation' and 'passion' for creating a change. Being perceived as 'doing good' is key, however this can only succeed if you at the same time being are perceived as knowledgeable. This underlines the argument by Burt; that an idea is only as powerful as the actor behind is perceived (Burt 2005).

### 6.3 The emergence of a sustainable finance profession?

The study shows how a new sustainable finance profession is emerging at the transnational level. While the social network analysis and the sequence analysis show how there still is no single distinct sustainable finance professional group, the analysis of the Top 50 career sequences suggests that a new form of sustainable finance activism has taken place at the centre stage. A case in point is Steve Waygood, Eszter Vitorini and Ingrid Holmes. All three have dedicated a large part of their career to sustainable finance, moving between the finance sector and niche climate finance NGOs and think tanks. While sustainability governance long has been driven by private authority (Thistlethwaite 2014), this type of new corporate activism, driven by professionals and taking place from within industries, can be considered a novel phenomenon.

I thus argue that sustainable finance activism has undergone a process of professionalisation, where traditional NGO activism partly is replaced by corporate reformism. This supports the claims of Eagleton-Pierce (2018) and Baden & Wigan (2017), who have showed in two separate case studies that professionals can increase their influence on policymaking processes by combining traditional forms of activism with knowledge-based expertise. This has also been showed by Baker and Wigan (2017), studying how civil society seeks to exert influence through niche expert NGOs, and by successfully linking the NGO ecology to the finance ecology through specialist expertise (Baker and Wigan 2017). This study contributes to expanding this framework, by showing that this type of activism now takes place from withinside the financial industry, hence strengthening the generalizability of the theoretical claims.

The growing demand for sustainable finance expertise and growing sustainable finance departments within organisations, indicates that this development of a 'sustainable finance profession' is unlikely to slow down. Moreover, professions are more likely to become transnational when linked to an issue that is both global, such as sustainability and climate change, and salient to powerful cross-border actors, such as transnational finance institutions, NGOs and GPSFs, (Harrington and Seabrooke 2020). Additionally, as showcased by Fourcade (2006), engaging at the transnational level allows professionals to cast of their national construct of profession.

I further argue that not only does this underline the way issue professionals strategically navigate the professional-organizational network of sustainable finance and how professional boundaries are challenged at transnational level, it also generates further insight to the professionals' motivation. While the professionals at the one hand strive to carve out new professional space for themselves at the transnational level, their strategic actions also contribute to building acceptance for the sustainable finance agenda among new constituencies. It does however not necessarily always coincide with organizational strategies (Halliday 1987, Block-Lieb and Halliday 2017). For instance, as successful NGO professionals creates a 'sustainable finance' avatar in the finance or private sector ecology, they manage to carve out a new professional space at the transnational level for their knowledge claims. This development takes place at the cost of the broader NGO and civil society, who increasingly are shut out of the policy discussions at EU level when the discussions increase in technicality,



due to their inability to engage in epistemic arbitrage. However, as shown by the NGOs that have succeeded in making authoritative claims in setting the sustainable finance agenda, this can be overcome by strategically building alliances and hinges to adjacent ecologies. As a consequence, however, the transnational organizational space with claims of authority over sustainable finance might become more homogenous in the future, as organizations import and export ideas between each other.

## 7. Conclusion

This thesis has set out to answer the question how do expert networks make authoritative claims in setting the Sustainable Finance agenda? This has been done by examining the empirical case of expert networks in and around the EU HLEG and the TEG on Sustainable Finance. This approach builds on the theoretical argument that transnational governance is a relational process, which takes place through two-level professional-organisational networks. Here, knowledge is the key resource in order to be able to make authoritative claims over how transnational issues are treated.

This thesis shows how expert networks make authoritative claims in setting the Sustainable Finance agenda by engaging in strategic cooperation and contestation in the two-level EU Sustainable Finance network. They do so by drawing on expert knowledge and strategically exploit their network ties. By answering the call for increased interdisciplinary research, this thesis contributes to the IPE and sociology of professions scholarship.

This has been done by taking a mixed methods approach, building on a combination of social network analysis, sequence analysis and qualitative interviews. First, this thesis has mapped the sustainable finance network in and around the HLEG and TEG on Sustainable Finance, identifying the main actors and organisations as well as the connections between them. Secondly, the sequence analysis has contributed to understand why some actors occupy central positions within a network and in what way career trajectories play a part in this. Taken together, the social network analysis and sequence analysis contribute to mapping the micro-level structures of the EU Sustainable Finance network. Finally, I corroborate the social network analysis and sequence analysis with qualitative interviews, in order to provide a more complete and in-depth account of the cooperation and contestation over EU Sustainable Finance.

The thesis shows how transnational governance is a process in constant movement, where professionals and organisations constantly struggle over issue control. As showed in this thesis, the governance of EU Sustainable Finance takes place in a complex two-level network of professionals and organizations who compete and cooperate over issue control over the agenda. The ability to make authoritative claims to the Sustainable Finance agenda is dependent on knowledge. Professionals who are able to exploit their network position and engage in epistemic arbitrage, by playing off knowledge from different ecologies, are viewed as knowledgeable with 'good ideas'.

How sustainable finance should be treated at EU level is a continuous process in constant flux. The sequence analysis also shows that having a mixed career trajectory contributes to this, particularly for professionals lacking formal, institutional authority. Furthermore, authority over sustainable finance is also derived from being a multiple insider at the structural fold, i.e. being able to both occupy structural holes between ecologies and exert influence within. Building alliances and cooperation across ecologies is an important strategy for issue control.

Moreover, organizations also actively engage in the transnational governance process, and strive to make authoritative claims over EU Sustainable Finance. Here, public authority is much more prevalent than previous studies suggest. Still, private authority remains important. Here, organizations pursue similar strategies as the professionals. Strategically building networks and creating hinges to adjacent ecologies is important, particularly for organizations lacking formal institutional authority over sustainable finance governance, such as NGOs and think tanks. The study shows how organizations engage in mission creep to claim authority over sustainable finance, and as a result carve out space for their services and products at the transnational level. Still, expert knowledge is key for organisations to gain traction for their ideas and proposals. The European Commission for instance, strategically draws upon the expert knowledge of expert groups, in this case the HLEG and TEG, to gain authority vis-a-vis other EU institutions.

In this process of coordination over issue control, a sustainable finance profession is emerging at the transnational level. Here, I argue that sustainable finance activism has undergone a process of professionalisation, where traditional NGO activism on the outside partly is replaced by corporate reformism on the inside.

This thesis has showcased the benefits of combining social network analysis and sequence analysis with qualitative interviews. All on their own, the methods would not have been able to capture the complex and multi-dimensional network, and the processes taking place within it, of EU Sustainable Finance. Together though, they each adds layers to the two-level network of EU Sustainable Finance and show how expert networks make authoritative claims in setting the Sustainable Finance agenda.

While this study contributes to an increased understanding of how expert networks make authoritative claims in setting the Sustainable Finance agenda, it does not make any claims in relation to the output of the policy process. Further research on the content and outcome of the policy process could shed a light on how different groups have had their demands met. Moreover, the sequence analysis indicates that participation in the HLEG and TEG creates increased organizational opportunities for the professionals involved. However, due to the temporal state of the data additional observations would have to be made during consecutive years to be able to draw any conclusions. This could however contribute to an increased understanding of how transnationalization affect professions and professionals' opportunities.

Finally, the study shows how knowledge-based, niche NGOs and think tanks have managed to occupy central positions within the network, whereas the broader civil society is missing. Additional research on civil society strategies to gain issue control over sustainable finance is needed, particularly paying attention to how NGOs on the outside seek to influence the agenda. Further research is also needed on the new form of corporate activism now taking place within the finance industry. While this novel form of activism has been shown in a few recent case studies, cross-sectoral research is needed to assess if this is a sector or issue specific development, or a general trend at the transnational level.

## Bibliography

Abbott, Andrew. 1988. *The System of Professions*. 1st ed. Chicago: The University of Chicago Press.

———. 1995. 21 *Annu. Rev. Sociol* SEQUENCE ANALYSIS: New Methods for Old Ideas. <https://about.jstor.org/terms> (March 9, 2020).

———. 2005. *Linked Ecologies: States and Universities as Environments for Professions\**. <https://about.jstor.org/terms> (March 11, 2020).

Abbott, Andrew, and Alexandra Hrycak. 1990. "Measuring Resemblance in Sequence Data: An Optimal Matching Analysis of Musicians' Careers." *American Journal of Sociology* 96: 144–85. <https://www.jstor.org/stable/2780695> (April 20, 2020).

Abbott, Kenneth W. 2015. *International Organizations as Orchestrators*. ed. Cambridge University Press.

Abbott, Kenneth W., P Genschel, D Snidal, and B Zangl. 2015. *International Organizations as Orchestrators*. Cambridge: Cambridge University Press.

Adler, Emanuel, and & Peter Haas. (1992). Conclusion: Epistemic Communities, World Order, and the Creation of a Reflective Research Program. *International Organization*, 46(1), 367-390. Retrieved May 14, 2020, from [www.jstor.org/stable/2706960](http://www.jstor.org/stable/2706960)

Adolph, Christopher. 2013. *Bankers, Bureaucrats, and Central Bank Politics: The Myth of Neutrality*. Cambridge University Press.

Andonova, Liliana B., Michele M. Betsill, and Harriet Bulkeley. 2009. "Transnational Climate Governance." *Global Environmental Politics* 9(2): 52–73.

van Apeldoorn, Bastiaan. 2004. "Theorizing the Transnational: A Historical Materialist Approach." *Journal of International Relations and Development* 7(2): 142–76.

Van Apeldoorn, Bastiaan, and Nana de Graaf. 2012. "Corporate Elite Networks and US Post-Cold War Grand Strategy from Clinton to Obama." *European Journal of International Relations* 20(1): 29–55.

Aviva. (2016). *Aviva Sustainable Toolkit*. Retrieved May 10, 2020 from <http://www.avivasustainablefinancetoolkit.com/#introduction>

Bäckstrand, Karin, Jonathan W Kuyper, Björn-Ola Linnér, and Eva Lövbrand. 2017. "Environmental Politics Non-State Actors in Global Climate Governance: From Copenhagen to Paris and Beyond." <https://rsa.tandfonline.com/action/journalInformation?journalCode=fenp20> (January 21, 2020).

Baden, Adam, and Duncan Wigan. 2017. "Professional Activists on Tax Transparency." In *Professional Networks in Transnational Governance*, Cambridge University Press, 130–46.

Baker, Andrew. 2010. "Restraining Regulatory Capture? Anglo-America, Crisis Politics and Trajectories of Change in Global Financial Governance." *International Affairs* 86(3): 647–63. <https://academic.oup.com/ia/article-lookup/doi/10.1111/j.1468-2346.2010.00903.x> (May 12, 2020).

———. 2017. "Esteem as Professional Currency and Consolidation: The Rise of the Macroprudential Cognoscenti." *Professional Networks in Transnational Governance*: 149–64.

Baker, Andrew, and Duncan Wigan. 2017. "Economy and Society Constructing and Contesting City of London Power: NGOs and the Emergence of Noisier Financial Politics." <https://www.tandfonline.com/action/journalInformation?journalCode=reso20> (May 7, 2020).

Ban, Cornel, Leonard Seabrooke, and Sarah Freitas. 2016. "Grey Matter in Shadow Banking International Organizations and Expert Strategies in Global Financial Governance." *Review of International Political Economy* 23(6): 1001–33.

Bank of England. Open letter on climate related financial risks. Retrieved May 10, 2020 from <https://www.bankofengland.co.uk/news/2019/april/open-letter-on-climate-related-financial-risks>

Barnett, Michael N., and Martha Finnemore. 1999. "The Politics, Power, and Pathologies of International Organizations." *International Organization* 53(4): 699–732. [https://www.cambridge.org/core/product/identifier/S002081839944086X/type/journal\\_article](https://www.cambridge.org/core/product/identifier/S002081839944086X/type/journal_article) (May 6, 2020).

Blanchard, Philippe. 2016. Sequence Analysis for Political Science. [www.concepts-methods.org](http://www.concepts-methods.org) (April 10, 2020).

Borgatti, Stephen & Everett, Martin & Freeman, Linton. (2002). UCINET for Windows: Software for social network analysis.

Borgatti, Stephen P, and Daniel S Halgin. 2011. "On Network Theory." *Organization Science* 22(5): 1168. <http://pubsonline.informs.org.https://doi.org/10.1287/orsc.1100.0641><http://www.informs.orghttp://dx.doi.org/10.1287/orsc.1100.0641> (May 14, 2020).

Boswell, Christina. 2008. "The Political Functions of Expert Knowledge: Knowledge and Legitimation in European Union Immigration Policy." <https://www.tandfonline.com/action/journalInformation?journalCode=rjpp20> (March 2, 2020).

Bourdieu, Pierre, and Alain. Accardo. 1999. *The Weight of the World : Social Suffering in Contemporary Society*. Polity Press.

Boussebaa, M. 2017. "Global Professional Service Firms, Transnational Organizing, and Core/Periphery Network." In *Professional Networks in Transnational Governance*, eds. Leonard Seabrooke and Lasse Folke Henriksen. Cambridge University Press.

Bryman, Alan. 2006. "Integrating Quantitative and Qualitative Research: How Is It Done?" *Qualitative research* 6(1).

Burt, Ronald S. 2004. "Structural Holes and Good Ideas." *American Journal of Sociology* 110(2): 349–99.

———. 2005. *Brokerage and Closure: An Introduction to Social Capital*. Oxford University Press.

Caiani, Manuelaaolo. 2014. "Social Network Analysis." In *Methodological Practices in Social Movement Research*, Oxford UP, 583–605.

Carpenter, Charli. 2007. "Studying Issue (Non)-Adoption." *International organization* 61(3): 634–67.

Christensen, Rasmus Corlin. 2020. "Elite Professionals in Transnational Tax Governance." *Global Networks*: glob.12269. <https://onlinelibrary.wiley.com/doi/abs/10.1111/glob.12269> (May 7, 2020).

Climate Bonds Initiative. (n.d.). Standard. Retrieved May 10, 2020 from <https://www.climatebonds.net/standard>

Climate-KIC (n.d.). What is EIT Climate-KIC. Retrieved May 10, 2020 from <https://www.climate-kic.org/who-we-are/what-is-climate-kic/>

Coman, Ramona. 2016. "Strengthening the Rule of Law at the Supranational Level: The Rise and Consolidation of a European Network." *Journal of Contemporary European Studies* 24(1): 171–88.

———. 2018. "Why and How Do Think Tanks Expand Their Networks in Times of Crisis? The Case of Bruegel and the Centre for European Policy Studies." <https://www.tandfonline.com/action/journalInformation?journalCode=rjpp20> (March 4, 2020).

———. 2019. "Transnational Economists in the Eurozone Crisis: Professional Structures, Networks and Ideas." *New Political Economy*.

Dezalay, Yves, and Bryant G. Garth. 2002. *The Internationalization of Palace Wars: Lawyers, Economists, and the Contest to Transform Latin American States*. University of Chicago Press.

Dezalay, Yves, and Mikael Rask Madsen. 2017. "In the 'Field' of Transnational Professionals: A Post-Bourdieuian Approach to Transnational Legal Entrepreneurs." *Professional Networks in Transnational Governance*: 25–38.

Djelic, Marie Laure, and Sigrid Quack. 2010. *Transnational Communities: Shaping Global Economic Governance*. Cambridge University Press.

Dunlop, Claire A. (2009). Policy transfer as learning: capturing variation in what decision-makers learn from epistemic communities. *Policy studies*, 30(3), 289-311.

Eagleton-Pierce, Matthew. 2018. "Professionalizing Protest: Scientific Capital and Advocacy in Trade Politics." *International Political Sociology* 12: 233–55.

<https://academic.oup.com/ips/article-abstract/12/3/233/5036942> (May 7, 2020).

Ellersgaard, Christoph Houman, Jacob Aagaard Lunding, Lasse Folke Henriksen, and Anton Grau Larsen. 2019. "Pathways to the Power Elite: The Organizational Landscape of Elite Careers." *The Sociological Review* 67(5): 1170–92.

<http://journals.sagepub.com/doi/10.1177/0038026119852301> (May 12, 2020).

Emirbayer, Mustafa. 1997. "Manifesto for a Relational Sociology." *American Journal of Sociology* 103(2): 281–317.

Eskelinen, Teppo, and Matti Ylönen. 2017. "Panama and the WTO: New Constitutionalism of Trade Policy and Global Tax Governance." *Review of International Political Economy* 24(4): 629–56.

European Commission. 2016. Commission decision on the creation of a High-Level Expert Group on Sustainable Finance in the context of the Capital Markets Union. Retrieved March 4 2020 from [https://ec.europa.eu/info/publications/commission-decision-creation-high-level-expert-group-sustainable-finance-context-capital-markets-union\\_sv](https://ec.europa.eu/info/publications/commission-decision-creation-high-level-expert-group-sustainable-finance-context-capital-markets-union_sv)

European Commission. 2018a. Final Report 2018 by the High-Level Expert Group on Sustainable Finance. Retrieved May 10, 2020 from [https://ec.europa.eu/info/sites/info/files/180131-sustainable-finance-final-report\\_en.pdf](https://ec.europa.eu/info/sites/info/files/180131-sustainable-finance-final-report_en.pdf)

European Commission. 2018b. Commission action plan on financing sustainable growth. Retrieved March 4 2020 from <https://ec.europa.eu/info/publications/180308-action-plan-sustainable-growth>

European Commission. 2019. Group Details - Commission Expert Group. High-Level Expert Group on Sustainable Finance (E03485). Retrieved March 4, 2020 from <https://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetail&groupID=3485&NewSearch=1&NewSearch=1&Lang=EN>

European Commission. 2020. Technical expert group on sustainable finance (TEG). Retrieved March 4 2020 from [https://ec.europa.eu/info/publications/sustainable-finance-technical-expert-group\\_sv](https://ec.europa.eu/info/publications/sustainable-finance-technical-expert-group_sv)

- European Commission. n.d. Sustainable finance. Retrieved March 4 2020 from <https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance>
- EUROSIF. (n.d.). Our network. Retrieved May 10, 2020 from <http://www.eurosif.org/our-network/>
- EU Technical Expert Group on Sustainable Finance. (n.d.) Report on EU Green Bond Standard Overview. Retrieved May 10, 2020 from [https://ec.europa.eu/info/sites/info/files/business\\_economy\\_euro/banking\\_and\\_finance/documents/190618-sustainable-finance-teg-report-overview-green-bond-standard\\_en.pdf](https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/190618-sustainable-finance-teg-report-overview-green-bond-standard_en.pdf)
- Eyal, Gil. 2013. "For a Sociology of Expertise: The Social Origins of the Autism Epidemic." *American Journal of Sociology* 118(4):863–907.
- Farrell, Henry, and Abraham Newman. 2016. "The New Interdependence Approach: Theoretical Development and Empirical Demonstration." *Review of International Political Economy* 23(5): 713–36.
- Faulconbridge, J, and D Muzio. 2017. "Global Professional Service Firms and Institutionalization." In *Professional Networks in Transnational Governance*, eds. Leonard Seabrooke and Lasse Folke Henriksen. Cambridge University Press.
- Finnemore, Martha and Kathryn Sikkink. 1998. "International Norm Dynamics and Political Change." *International Organization* 52(4):887–917.
- Fisher, Frank. 2009. *Democracy & Expertise*. Oxford University Press.
- Folke Henriksen, Lasse, and Leonard Seabrooke. 2016. "Transnational Organizing: Issue Professionals in Environmental Sustainability Networks." *Organization* 23(5): 722–41.
- Fourcade, Marion. 2006. "The Construction of a Global Profession: The Transnationalization of Economics." *American Journal of Sociology* 112(1): 145–94.
- . 2007. "Theories of Markets and Theories of Society." *American Behavioral Scientist* 50(8): 1015–34.
- French Sif. (n.d.). Membres du fir. Retrieved May 10, 2020 from <https://www.frenchsif.org/isr-esg/fir/membres-du-fir/>
- George, Alexander, and Andrew Bennett. 2005. *Case Studies and Theory Development in Social Sciences*. ed. MIT Press. Cambridge.
- Granovetter, Mark S. 1973. "The Strength of Weak Ties." *American Journal of Sociology* 78(6): 1360–80.
- Gulbrandsen, Lars H. 2014. "Dynamic Governance Interactions: Evolutionary Effects of State Responses to Non-State Certification Programs." *Regulation and Governance* 8(1): 74–92.



Haas, Peter M. 1992. "Introduction: Epistemic Communities and International Policy Coordination." *International Organization* 46: 1–35. <https://www.jstor.org/stable/2706951> (April 20, 2020).

Hale, Thomas, and Charles Roger. 2014. "Orchestration and Transnational Climate Governance." *Review of International Organizations* 9(1): 59–82.

Hall, Peter A. 1989. *The Political Power of Economic Ideas: Keynesianism across Nations*. Princeton: Princeton University Press. [https://books.google.com/books?hl=en&lr=&id=O-I9DwAAQBAJ&oi=fnd&pg=PP9&ots=Fek3bQWR0B&sig=IYLfk\\_p3LC7MWYD-Y41VQp86Fdl](https://books.google.com/books?hl=en&lr=&id=O-I9DwAAQBAJ&oi=fnd&pg=PP9&ots=Fek3bQWR0B&sig=IYLfk_p3LC7MWYD-Y41VQp86Fdl) (March 9, 2020).

———. 1993. Policy Paradigms, Social Learning, and the State: The Case of Economic Policymaking in Britain. *Comparative Politics* 25(3): 275–296.

Hargreaves, A. 1994. *Teacher's Work and Culture in the Postmodern Age Changing Teachers, Changing Times*.

Harrington, Brooke, and Leonard Seabrooke. 2020. "Transnational Professionals." *Annual Review of Sociology* 46(1): 1–19.

Hasselbalch, Jacob. 2016. "Professional Disruption in Health Regulation: Electronic Cigarettes in the European Union." *Journal of Professions and Organization* 3: 62–85.

Hearson, Martin. 2018. "Transnational Expertise and the Expansion of the International Tax Regime: Imposing 'acceptable' Standards." *Review of International Political Economy* 25(5): 647–71. <https://www.tandfonline.com/action/journalInformation?journalCode=rrip20> (May 12, 2020).

Heclo, Hugh. 1978. "Issue Networks and the Executive Establishment." American Enterprise Institute.

Helgadóttir, Oddný. 2016. "The Bocconi Boys Go to Brussels: Italian Economic Ideas, Professional Networks and European Austerity." *Journal of European Public Policy* 23(3): 392–409.

Henriksen, Lasse Folke, and Leonard Seabrooke. 2017. "Networks and Sequences in the Study of Professionals and Organizations." *Professional Networks in Transnational Governance*: 50–64.

———. 2019. "Issue Control in Transnational Business Governance Interactions."

———. 2020. "Elites in Transnational Policy Networks (Forthcoming)." *Global Networks*.

Hertel, Shareen. 2006. "New Moves in Transnational Advocacy: Getting Labor and Economic Rights on the Agenda in Unexpected Ways." *Global governance* 12(3): 263–81. <https://about.jstor.org/terms> (May 7, 2020).

Hironaka, Ann. 2015. *Greening the Globe*. Cambridge: Cambridge University Press.

Holzscheiter, Anna. 2017. "Coping with Institutional Fragmentation? Competition and Convergence between Boundary Organizations in the Global Response to Polio." *Review of Policy Research* 34(6): 767–89.

ICMA. (n.d). Green Bond Principles (GBP). Retrieved May 10, 2020 from <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>

———. (n.d). Green, Social and Sustainability bonds. Retrieved May 10, 2020 from <https://www.icmagroup.org/green-social-and-sustainability-bonds/>

Keck, Margaret E. and Kathryn Sikkink. 1998. *Activists Beyond Borders*. Ithaca: Cornell University Press.

Kentikelenis, Alexander E, and Leonard Seabrooke. 2017. "The Politics of World Polity: Script-Writing in International Organizations." *American Sociological Review* 82(5): Am. Sociol. Rev.

Keohane, Robert O., and Joseph S. Nye. 1972. *Transnational Relations and World Politics*. Cambridge, MA: Harvard university press.

———. 1974. "Transgovernmental Relations and International Organizations." *World Politics* 27(1): 39–62.

Koremenos, Barbara, Charles Lipson, and Duncan Snidal. 2001. "The Rational Design of International Institutions." *International Organization* 55(4): 761–799.

Kvale, Steinar. 1997. *Den Kvalitative Forskningsintervjun*. Studentlitteratur, Lund.

———. 2007. *Qualitative Research Kit: Doing Interviews*. London: SAGE Publications.

Lazega, Emmanuel, Marie Thérèse Jourda, Lise Mounier, and Rafaël Stofer. 2008. "Catching up with Big Fish in the Big Pond? Multi-Level Network Analysis through Linked Design." *Social Networks* 30(2): 159–76.

Lazega, Emmanuel, Lise Mounier, Tom Snijders, and Paola Tubaro. 2012. "Norms, Status and the Dynamics of Advice Networks: A Case Study." *Social Networks* 34(3): 323–32. <http://dx.doi.org/10.1016/j.socnet.2009.12.001>.

Levi-Faur, David. 2012. "New Governance or Old Governance? A Policy Style Perspective." In *"The Oxford Handbook of Governance,"* Oxford University Press, 1–832.

Mahoney, James, and Gary Goertz. 2006. "A Tale of Two Cultures: Contrasting Quantitative and Qualitative Research." *Political Analysis* 14: 227–49.

Marin, Alexandra, Barry Wellman, John Scott, and Peter J Carrington. 2016. "Social Network Analysis : An Introduction In : *The SAGE Handbook of Social Network Analysis*." *The SAGE handbook of Social Network Analysis*: 11–25.

Mertens, D, and M Thiemann. 2019. "Building a Hidden Investment State? The European Investment Bank, National Development Banks and European Economic Governance." *Journal of European public policy* 26(1): 23–43.

O'mahoney, Joe, and Andrew Sturdy. 2016. "Power and the Diffusion of Management Ideas: The Case of McKinsey & Co." *Management Learning* 47(3): 247–65.

NGFS. (n.d). Origin and purpose. Retrieved May 10, 2020 from <https://www.ngfs.net/en/about-us/governance/origin-and-purpose>

Ponte, Stefano. 2014. "'Roundtabling' Sustainability: Lessons from the Biofuel Industry." *Geoforum* 54: 261–71. <http://dx.doi.org/10.1016/j.geoforum.2013.07.008>.

———. 2019. "Green Capital Accumulation: Business and Sustainability Management in a World of Global Value Chains." *New Political Economy*: 1–13.

Ponte, Stefano, and Lasse Folke Henriksen. 2017. "Public Orchestration, Social Networks, and Transnational Environmental Governance: Lessons from the Aviation Industry." *Regulation & Governance* 12(1): 23–45.

Quack, Sigrid. 2013. "Regime Complexity and Expertise in Transnational Governance: Strategizing in the Face of Regulatory Uncertainty." *Oñati Socio-Legal Series* 3(4): 647–78.

Radaelli, Claudio M. 1995. "The Role of Knowledge in the Policy Process." *Journal of European Public Policy* 2(2): 159–83.  
<https://www.tandfonline.com/action/journalInformation?journalCode=rjpp20> (March 8, 2020).

———. 1999. 'Harmful tax competition in the EU: policy narratives and advocacy coalitions', *Journal of Common Market Studies*, 37 (4), 661–82, doi: 10.1111/1468- 5965.00201.

———. 2001. The domestic impact of European Union public policy: notes on concepts, methods, and the challenge of empirical research. *Politique européenne*, 107-142.

———. 2011. "The Public Policy of the European Union: Whither Politics of Expertise?" *Journal of European Public Policy* 6(5): 757–74.  
<https://www.tandfonline.com/action/journalInformation?journalCode=rjpp20> (March 2, 2020).

Rowley, Jennifer. 2012. "Conducting Research Interviews." *Management Research Review* 35(3/4): 260–71. [www.emeraldinsight.com/2040-8269.htm](http://www.emeraldinsight.com/2040-8269.htm) (May 14, 2020).

Scott, John. 2013. *Social Network Analysis*. 3d ed. London: SAGE.

Seabrooke, Leonard. 2014. "Epistemic Arbitrage: Transnational Professional Knowledge in Action." *Journal of Professions and Organization* 1(2): 49–64.

Seabrooke, Leonard, and Lasse Folke Henriksen. 2017. "Issue Control in Transnational Professional and Organizational Network." In *Professional Networks in Transnational Governance*, Cambridge University Press, 3–24.

———. 2020. "Elites in Transnational Policy Networks". *Global Networks*, forthcoming

Seabrooke, Leonard, and Rebecca Nilsson. 2014. "Professional Skills in International Financial Surveillance: Assessing Change in IMF Policy Teams."

Seabrooke, Leonard, and Eleni Tsingou. 2014. "Distinctions, Affiliations, and Professional Knowledge in Financial Reform Expert Groups." *Journal of European Public Policy* 21. <https://www.tandfonline.com/action/journalInformation?journalCode=rjpp20> (January 27, 2020).

———. 2020. "Revolving Doors in International Financial Governance." *Global Networks*: 1–26.

Seabrooke, Leonard, and Duncan Wigan. 2016. "Powering Ideas through Expertise: Professionals in Global Tax Battles." *Journal of European Public Policy* 23(3): 357–74.

Snidal, Duncan, and Kenneth W. Abbott. 2010. "International Regulation without International Government: Improving IO Performance through Orchestration." *Review of International Organizations Int Organ* 5: 315–44.

Steketee, Michael, Atsushi Miyaoka, and Maura Spiegelman. 2015. "Social Network Analysis." In *International Encyclopedia of the Social & Behavioral Sciences: Second Edition*, Elsevier Inc., 461–67.

Stone, Diane. 2004. "Transfer Agents and Global Networks in the 'transnationalization' of Policy." *Journal of European Public Policy* 11(3).

———. 2013a. *Palgrave Macmillan Knowledge Actors and Transnational Governance: The Private-Public Policy Nexus in the Global Agora*. 1st ed.

———. 2013b. "'Shades of Grey': The World Bank, Knowledge Networks and Linked Ecologies of Academic Engagement." *Global Networks* 13(2): 241–60. <http://doi.wiley.com/10.1111/glob.12007> (April 20, 2020).

Strange, Susan. 1996. *The Retreat of the State*. Cambridge: Cambridge University Press.

Suddaby, Roy, David J Cooper, and Royston Greenwood. 2007. "Transnational Regulation of Professional Services: Governance Dynamics of World Level Organizational Change." *Organizations and Society* 32: 333–62.

Thomas, L. (2019). 'France to stress test banks, insurers' climate risks next year', *Reuters*, November 29, 2019. Retrieved May 10, 2020 from <https://www.reuters.com/article/us-france-climate-finance/france-to-stress-test-banks-insurers-climate-risks-next-year-idUSKBN1Y30CS>

Teorell, Jan, and Torsten Svensson. 2007. *Att Fråga Och Att Svara: Samhällsvetenskaplig Metod*. 1:2. ed. Peter Söderholm. Liber AB.

Thistlethwaite, Jason. 2014. "Private Governance and Sustainable Finance." *Journal of Sustainable Finance & Investment* 4(1): 61–75.  
<http://www.tandfonline.com/doi/abs/10.1080/20430795.2014.887348> (January 21, 2020).

Thistlethwaite, Jason, and Matthew Paterson. 2016. "Private Governance and Accounting for Sustainability Networks." *Environment and Planning C: Government and Policy* 34(7): 1197–1221.

Tsingou, Eleni. 2014a. "Power Elites and Club-Model Governance in Global Finance." *International Political Sociology* 8(3): 340–42.

———. 2014b. "The Club Rules in Global Financial Governance." *Political Quarterly* 85(4): 417–19.

———. 2015. "Club Governance and the Making of Global Financial Rules." *Review of International Political Economy* 22(2): 225–56.  
<http://www.tandfonline.com/doi/full/10.1080/09692290.2014.890952> (March 13, 2020).

UKSIF. (n.d.). Membership. Retrieved May 10, 2020 from <https://uksif.org/membership/>

Vedres, Balázs, and David Stark. 2010. "Structural Folds: Generative Disruption in Overlapping Groups." *American Journal of Sociology* 115(4): 1150–90.

Weaver, Catherine. 2008. *Hypocrisy Trap: The World Bank and the Poverty of Reform*. Princeton University Press.

Weimann, Gabriel. 1982. "On the Importance of Marginality: One More Step into the Two-Step Flow of Communication." *American Sociological Review* 47(6): 764.  
<https://www.jstor.org/stable/2095212> (May 13, 2020).

Zeitlin, Jonathan. 2015. *Extending Experimentalist Governance?: The European Union and Transnational Regulation*. Web. Oxford UP.