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Digital Cooperation in the Baltic Sea Region: A Case of Networked Multi-Level Governance

Master's Thesis for MA Program in Baltic Sea Region Studies

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This thesis conforms to the requirements for a Master's thesis

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ABSTRACT

The rapid advancement and implementation of Information and Communication Technologies (ICTs) has made the 'digital world' an inseparable part of contemporary societies. We have e-commerce, e-democracy, e-administration and e-'just about anything'. Underlying these digital solutions is the understanding of a borderless and networked world with more and more decentralized states. Globalization pressures thus have the states thinking how to harness the potential of ICTs while upholding their core values. The answer seems to lie in learning how to collectively construct the information society – through horizontal and vertical, transnational and sub-national cooperation. As such, societies are increasingly moving towards polycentric forms of governance that span across state borders and help to accommodate the complexity of modern challenges.

This thesis explores how globalization pressures facilitate the diffusion of power in the example of digital cooperation in the Baltic Sea Region (BSR), exploring how it has emerged and what it is like in this day and age. For this, a theoretical synthesis is developed between the concepts of regionalism, digitization and multi-level governance, serving as an analytical framework for advancing the central case study. Through a combination of methods including process-tracing and expert interviewing, the thesis will explore digital cooperation networks in the BSR so to arrive at a wider understanding of the emerging multi-level governance model in the regional digital agenda.

CONTENTS

Abbreviations

BDF – Baltic Development Forum

BSR – Baltic Sea Region

DAE – Digital Agenda for Europe

eGA – e-Governance Academy

EU – European Union

EUSBSR – European Union Strategy for the Baltic Sea Region

ICT – information and communications technology

MLG – multi-level governance

NB8 – Nordic-Baltic Eight

PA – Priority Action

RIA – Estonian Information System Authority (*Riigi Infosüsteemi Amet*)

ToDE – Top of Digital Europe

INTRODUCTION

The Baltic Sea Region (BSR) has often been dubbed an innovative test-bed, a dynamic experiment, a regional powerhouse and a competitiveness frontrunner, yet the bulk of research on BSR cooperation addresses the more conventional aspects of environment, security and economy. Though these areas have formed and defined the kind of cooperation that takes place in the region, a shift towards the future avenues of regional cooperation is needed in order to keep up with and theorize the dynamic developments of the region. This is especially relevant in light of the region's image as a macro-regional model where new ideas are tested and problems tackled on the level of a region.

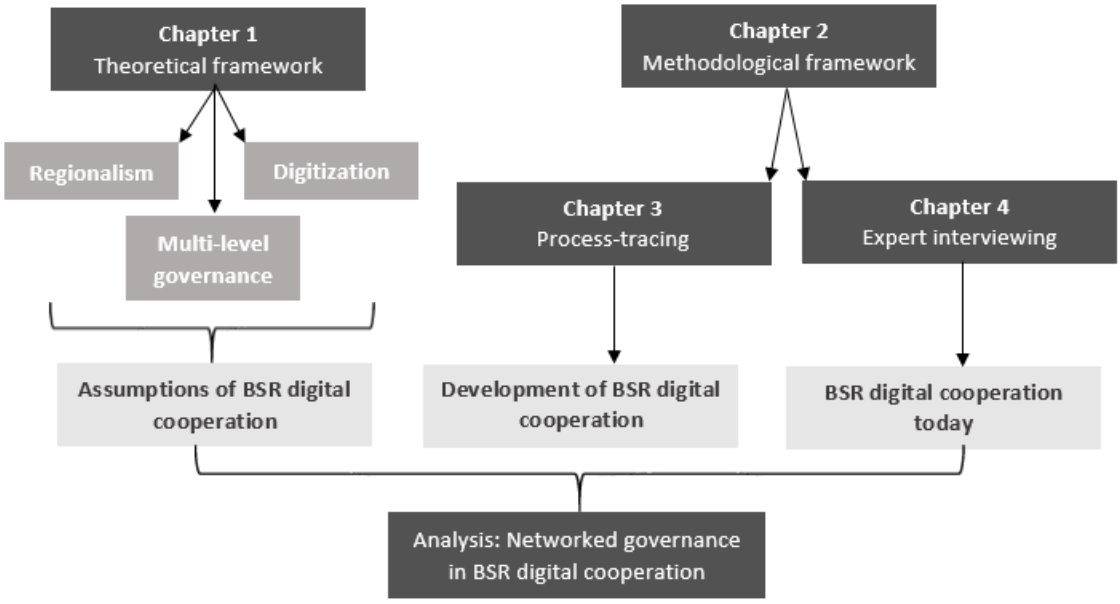
Innovation, of course, occurs in all conceivable fields of cooperation, but recently, one of the most pronounced debates on the regional level has been that of cross-border digital cooperation, arguably largely fuelled by the Digital Agenda flagship of the EU 2020 Strategy. There is a general consensus on the benefits of a functioning digital market in supporting economic growth in the BSR, the rationale for doing so − a report by Baltic Development Forum and the Baltic Chambers of Commerce Association (BDF 2012) estimates that cross-border barriers in the digital area cost at least 45 billion euros annually in the BSR alone − as well as the main priority areas to focus on (i.e. e-procurement, public sector information and open data, roaming services, online intermediaries), yet the question of how to release and realize this huge growth potential remains contested.

On a more theoretical level, the understanding that cross-border digital cooperation is crucial to the competitiveness of the region is somewhat puzzling. After all, everything that is digital should know no borders as physical presence and geographical proximity no longer matter thanks to modern ICTs. Information is collected, accessed, stored, transmitted and exploited digitally and thus globally. Yet, there seems to be a consensus that the global and all-embracing phenomenon of digitization needs to be addressed in a

geographically restricted cooperative context in the BSR. This paradigm is clearly worth a closer exploration as a sneak peak into the emerging areas of regional cooperation and the logic behind it. For this, however, the conceptual divide between globalizing on the one hand and regionalizing on the other needs to be crossed.

Regardless of the theoretical controversy, the pragmatic question remains: how can the potential of digitization be realized in the regional context? This thesis argues that the BSR has already figured out how - a networked multi-level governance model is emerging in the BSR, demonstrating a shift from state-centric cooperation initiatives to a complex interplay of various actor networks in the area of digital cooperation. Each offering their individual contributions to diminishing digital barriers in the region, the developing networks are claimed to govern digital cooperation in the BSR, although still in a very fragmented manner. In this light, the thesis aims to find out how these networks have developed, who they are and how they relate to each other in shaping a governance model for BSR digital cooperation. As an introductory piece of research in the pool of regionalism studies, the thesis thus seeks to form a wider perspective of digital cooperation in the BSR.

The overall research design of the thesis can be visualized as follows:



Graph 1: Research design of the thesis
Source: Compiled by the author

Relevance of the research

As an introductory piece of research on the digital dimension of regional cooperation, the relevance and originality of the thesis can be summarized through academic, theoretical and policy aspects:

- **Academic relevance** – raising awareness of the recently established regional networks that contribute to the digital growth of the BSR and turning the attention of region studies to the highly dynamic and fast-developing area of digitization so to encourage further research and the development of analytical approaches in the currently scarce digital cooperation literature that would support future policy-making.
- **Theoretical relevance** – developing a synthesis of the seemingly distant concepts of regionalism, digitization and multi-level governance based on their mutual commitment to globalization phenomena so to propose a theoretical framework suitable for analyzing digital cooperation in regional settings. Thus, regionalism literature will be complemented with an understanding of why and how globalization processes (in the example of digitization) result in the decentralization of regional cooperation.
- **Policy relevance** – analyzing the development and current state of BSR digital cooperation in order to reveal the greatest barriers in shaping a regional digital single market and to outline potential for policy improvement on the EU, national as well as sub-national levels.

Research aim

Proceeding from the abovementioned study focus, the thesis aims to form a comprehensive understanding of the development and current state of BSR digital cooperation through mapping and analyzing the most prominent digital networks that have emerged. In line with this, the research questions are the following:

1. **How has digital cooperation developed in the BSR regional context?**
2. **How is MLG expressed in today's BSR digital cooperation?**
3. **What form of digital cooperation do we have in the BSR?**

In order to answer these questions, the case study of BSR digital cooperation will be placed in a theoretical framework that combines the principles of regionalism, the global phenomenon of digitization and the analytical tools provided by the multi-level governance model.

Research methods

Framed by the theoretical synthesis, BSR digital cooperation will be explored as a single case study in a two-step process. First of all, the decisive developments that together conditioned the emergence of digital cooperation in the BSR will be process-traced in a retrospective approach. The pre-institutionalized setting of the BSR as well as the region's embeddedness in wider EU governance are thereby treated as the principal 'deciding factors'. This introduction to the logic of BSR digital cooperation will be followed by the second, main phase, which seeks to account for BSR digital cooperation as it is today. This will be done by exploring the case – BSR digital cooperation – on five distinct levels of governance, thereby combining desk research for identifying and categorizing relevant actor networks with expert interviews for further investigating the experience and interconnectedness of the mapped networks in shaping BSR digital governance. The results from process-tracing and interviewing will thereafter be tied back to theoretical assumptions and a conclusion will be reached regarding what is the governance of BSR digital cooperation like and why it has developed the way it has.

Limitations of the research

As the current pool of research on the topic of digital cooperation in the BSR is scarce and links with other studies are difficult to find, the thesis aims at describing the related governance structure in a comprehensive way – indicating that the analyses cannot go into minor detail. This, however, suggests diverse opportunities for further research. Also, as digital cooperation in the BSR in general is found to be just emerging, this also necessitates that a wide range of digital cooperation topics are included that cannot be easily compared by topic – rather, what are accounted for are general insights and cooperation patterns. As this can be counted as a limitation, the benefits of a comprehensive framework will be highlighted as an introduction to the topic that deserves

more scholarly interest. Also, contrary to the mainstream literature on e-services and e-governance, the current research will not assume a technocratic approach (e.g. interoperability of services and ease of use) to digital cooperation, rather concentrating on analyzing the overall cooperation setting (e.g. trends, obstacles) through a theoretical lens.

Organization of the thesis

The thesis is organized into four main chapters surrounded by introductions and conclusions. The first of these aims to explain the three main concepts that help to place BSR digital cooperation as a study focus into an analytical framework. This involves elaborating on the principles of regionalism, the phenomenon of digitization and the multi-level governance lens, resulting in a synthesis and a set of theoretical assumptions that will help to interpret the observations of the empirical part. The second chapter concentrates on justifying the case selection and outlines a two-step methodology for exploring digital cooperation in the BSR. The two methods – process-tracing and interviewing – will in turn form chapters three and four, accounting for the development of BSR digital cooperation so far and the current state of cooperation. This will lead up to the final analysis that ties together the results of process-tracing and interviewing with the theoretical assumptions, resulting in an understanding of the kind of digital cooperation we have in the BSR.

CHAPTER 1

Theoretical framework: regions, governance and everything digital

The first chapter elaborates on the three underlying concepts and their relation to one another in the context of this study. The aim is to demonstrate that despite seeming like conceptually somewhat distant theoretical components, regionalism, digitization and multi-level governance all share a strong commitment to theorizing globalization processes, enabling to develop a synthesis appropriate for analyzing digital cooperation in a regional context. After conceptualizing these three components, thus, a theoretical synthesis suitable for this thesis will be developed, whereas each component is ascribed a specific conceptual role – regionalism as providing the scope, digitization as the focus and MLG as the lens. Based on these components, a set of theoretical assumptions will be proposed about the essence of digital cooperation in the BSR, leading up to the empirical part of the thesis.

1.1. Regionalism studies

The end of the Cold War has witnessed a resurgence of regionalism studies. This is mostly conditioned by the proliferation of regional institutions, which has given rise to substantial academic interest in both their sources as well as consequences. A wealth of studies have been conducted by students of economics who are interested in regionalism's welfare implications for the stability of the international system. Besides economists, however, regionalism has also been subject to increasing attention by political scientists – scholars of international relations and comparative politics have produced a sizeable amount of literature on regionalism phenomena. (Mansfield & Solingen 2010: 146)

Regionalism studies seem to arrive at the first obstacle already when trying to find a clear-cut definition for the underlying concept – a region. Langenhove (2013: 475) finds it striking that although throughout regionalism studies, there has emerged an insight that regions are central to our understanding of world politics, the concept of region itself is hardly problematized. This conceptual vagueness, he claims, does not only have implications for the theoretical and empirical quality of research, but also hinders effective policy-making (*Ibid*.: 475-476). Indeed, if understandings of regions differ considerably depending on who is studying the concept, it would follow that each and every study of regions is valid in its own right, but it is another story regarding the wider applicability of the findings.

In the first wave of regionalism studies from the 1950s to the mid-1970s, there was a tendency to take a 'scientific' approach to defining regions by identifying relationships between regionalism and other factors like social, economic, political and organizational cohesiveness (cf. Russett, Cantori, Spiegel) (Hameiri 2013: 317). Geography was generally treated as one of the main deciding factors in distinguishing between a region and a non-region. For instance, one of the early contributors to regionalism literature, Nye (1968: xii) asserts that a region is 'a limited number of states linked together by a geographical relationship and by a degree of mutual interdependence'. This definition combines the essence of a region in three main aspects; namely, a region embraces a limited number of 'members', it has emerged owing to geographical proximity and thus also fosters increased interactions, which in turn leads to intensified cooperation.

A major milestone in regionalism studies was moving away from the geographical focus of regions. Katzenstein (2005 cited by Medrano 2007: 1257), for instance, concludes that regions should be seen as institutionally patterned interactions between states, not as geographic objects. This new approach does not acknowledge the existence of 'natural' regions and the underlying assumption is that 'all regions are socially constructed and hence politically contested' (Hurrell 1995: 38-9 cited by Hettne 2005: 544). In order to describe this shift of emphasis, the concept of 'regionness' was introduced as a process 'whereby a geographical area is transformed from a passive object to an active subject capable of articulating the transnational interests of the emerging region' (Hettne & Söderbaum 2000: 361). Thus, contemporary regionalism studies seem to share a meta-

theoretical consensus that regions are 'politically made' (Katzenstein 2005: 9) and can thus be seen as actors.

Similarly to regions, regionalism has often been referred to as an 'elusive' concept (Mansfield & Milner 1999 cited by Yi 2007: 4) – one that has attracted considerable academic attention in various fields of social sciences, but one that still remains contested after more than sixty years of debate. Indeed, from theorizing the European integration project since its inception, extending the interest beyond the European case after the Cold War and bringing attention to the latest 'old' versus 'new' regionalism dichotomy, it can be said that regionalism studies are yet to produce a 'grand' theory which could accommodate the variety of cases explored. As regions increasingly attract academic interest, however, there is a need for conceptual clarifications, or as Fawn (2009 cited by Langenhove 2013: 476) concludes, regions are 'difficult to theorize, while making that also a necessity.'

Hettne has suggested that defining the 'region words' is somewhat of a dead end because the concepts are 'moving targets'. The problem is both ontological as well as epistemological – if there is little common ground regarding what we actually study when we study regionalism, there cannot be any agreement regarding how we should study it. (Hettne 2005: 543) Moreover, as if the circumstance that e.g. comparative politics, international relations and international political economy each have their own understanding of how to approach regionalism does not complicate matters enough, we also have to take into account the drastic increase and growing complexity of regional arrangements (Behr & Jokela 2011: 3). As a result, we are left with a concept which varies across time and specialization, but which is nevertheless essential to tackle in order to explore these 'regional arrangements'.

As a response to these conceptual challenges, the following sub-sections present a brief account of the 'region words' in an attempt to explain which connotations regionalism has in this thesis. Dichotomies such as old vs new regionalism, regionalism vs regionalization and regional cooperation vs regional integration are thereby used in order to break regionalism down into analytical categories. This brief visit to the realm of regionalism studies will once again prove that the phenomenon is surrounded by large

conceptual pluralism, making it necessary to establish some points of departure before moving on.

1.1.1. Old and new regionalism

Arguably the most important dichotomy in the context of this thesis is old vs new regionalism with the thesis taking the latter approach. Underlying the debate is the claim that formerly accepted regionalism principles have become outdated as the character and functions of regions have recently experienced major transformations. This, in turn, has had a significant impact on the relative weights given to various levels of analysis – e.g. the global, regional, national and sub-national levels – and the links between them, whereby emphasis is shifting both upward and downward from the national level. (Väyrynen 2003: 26, 41) In order to bring more clarity to the old vs new regionalism differences, Söderbaum (2007: 187) proposes three main characteristics that discern the approaches:

- **Actors** – whereas old regionalist studies are dominated by states and intergovernmental regional organizations, new regionalism looks beyond state domination and also accounts for the market, civil society and external actors;
- **Areas of cooperation** – whereas the old regionalist paradigm prescribes that cooperation takes places in clearly delimited sectors (especially trade and security), new regionalism acknowledges that cooperation happens on a variety of fronts simultaneously, with strong sectorial linkages;
- **Policy orientation** – whereas old regionalist studies describe policy as introverted and often protectionist, new regionalism claims that policy is extroverted, usually directly linked with globalization.

It can be said that the distinction between old and new regionalism boils down to agency. Namely, authors tend to divide into two regarding whether to treat states as the actors behind regionalism 'efforts' or whether to allow for a broader level beyond that of states. For example, Payne and Gamble (1996 cited by Hettne 2005: 545) emphasize that regionalism denotes a 'state-led or states-led project designed to reorganize a particular regional space along defined economic and political lines', whereas Hveem (2003, *ibid*.) refers to 'an identifiable group of actors' that drive the project, therefore not confining

the agency exclusively to states. Despite the fact that regionalism can be treated as a political project in both cases, new regionalism has been claimed to mean 'the return of the political', but not necessarily 'the return of (political) leaders' (Väyrynen 2003: 41).

Besides differences in agency, new regionalism also has a distinct relationship with wider globalization processes, though the nature of this relationship is still very much contested. Hveem (cited by Spindler 2002:4) exemplifies this debate by saying that new regionalist studies come to the rather inconclusive conclusion that new regionalism may represent globalization or attempt to ride on it, to regulate it or to resist it. More important than the exact relationship, however, is the understanding that regionalism is a response to the need for systematizing globalization processes in a smaller scale to make them more graspable. In line with this, Väyrynen (2003: 26) claims that globalization came to the new regionalist agenda in the late 1980s, when various regional organizations became more common, indicating the 'need to react to the pressures created by economic globalization through local means'. This, in turn, is closely connected to the rationale of keeping and/or increasing the competitiveness of regional actors through a wider regional 'arrangement', or as Pelagidis and Papasotiriou (cited by Spindler 2002:4) put it, 'national actors may perceive regionalism as a defense mechanism against the competitive pressures arising from the globalization processes'.

This brings us back to the initial 'puzzle' – if digitization as a global phenomenon knows no borders, why should it be tackled in a regional setting? The seemingly incompatible concepts turn out to have close linkages. New regionalism provides a suitable framework to link together globalization as a worldwide phenomenon and regionalism as a response and means to maintain competitiveness in the global economic landscape. In the same lines, the pressure to digitize leads states to pursue regional arrangements as a defense mechanism so to collectively respond to the challenges and realize the benefits of economies of scale. Thus, new areas emerge in regional cooperation that surpass the traditional trade and security issues. On the other hand, new regionalism helps to account for new patterns of interaction between state and non-state actors that emerge in these cooperative arrangements. The understanding of a 'group of actors' leading a regionalism project is thereby crucial to the empirical part of this study, whereby the actors driving BSR digital cooperation will be identified.

1.1.2. Regionalism and regionalization

Contrary to the ease of dichotomizing old and new regionalism, regionalism and regionalization cannot be seen as contending concepts in this study. In order to clarify this, the main distinction between regionalism and regionalization as advanced by Söderbaum (2007: 188) can be used:

- **Regionalism** refers to a policy or a project, whereby state and non-state actors cooperate and coordinate strategy within a particular region, driving a formal program that often leads to institution-building;
- **Regionalization** represents the process of cooperation, integration, cohesion and identity-creating in a regional space that does not necessarily mean anything more than a concentration of activity of trade, people and ideas.

As such, regionalism denotes 'formal, state-led projects of region-making that often involve a certain degree of institutionalization', whereas regionalization has come to mean 'the growth of societal integration within a region and the often undirected processes of social and economic interaction' (Hurrell 1995: 334). The former can thereby be seen as referring to top-down and political practices, complying with Breslin and Higgott's (2000: 344) understanding of regionalism as those state-led projects of cooperation that emerge as a result of intergovernmental dialogue and treaties, whereas the latter rather describes a 'societal, bottom-up, often economically-driven process that is in constant flux' (Mansfield & Solingen 2010 cited by Behr & Jokela 2011: 4).

Regionalism in its essence is thus a formal project (policy program) deliberately driven by governments, whereas regionalization is an unplanned process that occurs spontaneously and simultaneously on several levels. In this study, the two concepts are seen as complementary rather than exclusive – whereas regionalism provides the funds and infrastructure for regionalization processes to occur, regionalization in turn can highlight the need for 'more state' and regulatory mechanisms in some areas (Wunderlich 2013). Thus, although regionalization is more spontaneous in nature, it does not mean that it is detached from politics. Accepting complementarity between regionalism and regionalization is thereby in line with multi-level governance, which seeks to account for both top-down as well as bottom-up policy-forming and implementation processes

through various governance networks. Thus, the underlying assumption is that societal actors are increasingly becoming an inseparable part of formal policy programs.

1.1.3. Regional cooperation and integration

Similarly, although the conceptual borders of regional cooperation and integration can be distinguished quite well, one cannot be analyzed without the other in the context of this study. After all, as the classical regional integration theories that emerged in the 1950s and 1960s primarily addressed the European case (Hettne & Söderbaum 2006: 182), regionalism studies in general became dominated by this rather unique supranational model. According to Schmitter (2007: 2), virtually all conceptualizing and theorizing about the role of transnational regional organizations has come to be based on the European experience alone, which 'has had the subtle effect of shifting the focus from cooperation between consenting and still sovereign national states to the voluntary, gradual and fitful process of their integration'.

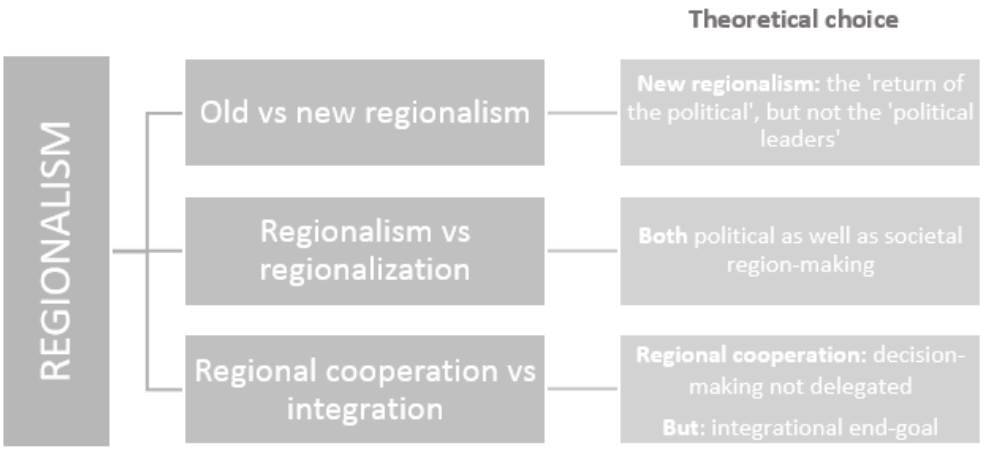
One of the most widely accepted definitions of regional integration is that of Lindberg's (cited by Obydenkova 2011), who defines the concept as, firstly, 'the process whereby nations forgo the desire and ability to conduct foreign and key domestic policies independently of each other, seeking instead to make joint decisions or to delegate the decision-making process to new central organs', and secondly, as 'the process whereby political actors in several distinct settings are persuaded to shift their expectations and political activities to a new center'. Thereby, integration can be seen as a more complex process, one beyond the limits of cooperation, where such a shift of loyalty does not occur. Integration can thus be considered as a process and cooperation as the initial stage of this process (*Ibid*.).

Whereas regional integration implies some change of sovereignty, or, according to Haas (cited by Hettne 2005: 544), aims to explain on which conditions and for which reasons states cease to be fully sovereign, definitions of cooperation usually refer to national interests or the common good. For example, it has been defined as 'joint efforts by states to solve specific problems' and as 'any interstate activity designed to meet the commonly acknowledged need' (*Ibid*.: 544-545). Schmitter (2007: 4) advances the topic of when cooperation becomes integration further. According to him, it is relatively costless to

enter into and exit from cooperation arrangements and loyalty to the region as such remains minimal. It is only when this regional arrangement acquires a degree of legitimacy to act on its own regarding initiating proposals, making decisions and implementing policies, is there reason to say that a regionalism project is switching from cooperation to integration.

In the context of this thesis, the digital agenda in the BSR will be referred to as 'digital cooperation' rather than 'digital integration', mainly for the reason that decision-making regarding digital matters has not been delegated to any central organs. It is quite the opposite – the thesis makes the claim that digital cooperation in the BSR is just beginning to emerge through the efforts of various governance networks. As prescribed by the concept of cooperation, these networks share a common goal – the benefits of a single digital market – but each retain their legitimacy to act on their own. At the same time, it has to be borne in mind that BSR digital cooperation is deeply embedded in wider EU integration processes, evidenced already by the integrational nature of the aim of attaining a digital single market – this, however, will be elaborated on when process-tracing the development of digital cooperation in the BSR.

All in all, the theoretical choices made in this thesis about regionalism can be visualized as follows:



Graph 2: Theoretical choices about regionalism
Source: Compiled by the author

1.2. Digitization

There is no doubt that digitization has transformed the way modern society functions. Rapid advances in technology are driving society towards more and more information-centeredness, which on the one hand poses new globalization challenges, but at the same time also provides the tools to tackle them through digital innovation. Broadband connectivity, wireless mobility, cloud computing, e-commerce, social media and sensors are just a few components of what we now know as digitization (Friedrich et al. 2011: 5).

Digitization as a process was set in motion in the late 20th century by the third wave of invention and economic disruption after two waves of industrial revolutions. The third wave was initiated by remarkable advances in computing and ICT technology, most notably the development of the integrated circuit. (The Economist 2014: 1) Thus, digitization is fuelled by technological developments – 'the spread of broadband access and mobile devices, the continued impact of Moore's law (cutting the price of computing power in half every two years), and increased sophistication in the management and use of data' (Friedrich et al. 2012).

Digitization as a technical concept can be described as 'the representation and augmentation of our physical world in ones and zeros', referring to processing information in digital instead of analogue form (Press 2014). In a broader societal context and more suitably to this thesis, however, digitization is defined as the 'economic and social transformation triggered by the massive adoption of digital technologies to generate, process, share and transact information' (Katz et al. 2014: 32). Even more specifically, Friedrich et al. (2011: 5) refer to digitization as:

> …the pervasive adoption of a wide variety of digital, real-time, and networked technologies, products, and services that will enable people, companies, governments, and even machines to stay connected and communicate with one another, gathering, analyzing, and exchanging massive amounts of information on all kinds of activities – and the economic and societal impacts those activities will have.

In essence, digitization is a combination of technological and social innovation. It is based on the evolution of network access (mobile or fixed broadband networks) and semiconductor technologies (computers, wireless devices), but has a set of social spillovers resulting from the use of technology (common platforms for application

development, electronic delivery of government services, electronic commerce, social networks and availability of online information) (Katz & Koutroumpis 2013: 314). The social aspect of digitization is what allows to make connections to regionalism processes in this thesis – digital cooperation as driven by technology, but realized and controlled by social networks. Technology, after all, has to be implemented and adopted by people in order to count as an innovation.

On a broader level, it follows that digitization, much like the cooperation it drives, has to proceed from a clearly perceived need. For the purpose of creating something new and valuable with digital technology, two aspects can be seen as underpinning digital innovation processes – an understanding of what has become possible thanks to technological advances and an insight into some unmet need. The result is what Fichman et al. (2014: 330) define as a 'product, process or business model that is perceived as new, requires some significant changes on the part of adopters and is embodied in or enabled by IT'. This 'insight into some unmet need', in turn, can be easily translated to a regional cooperation context whereby actors can attain an underlying 'common good' with the help of modern ICTs.

1.2.1. Digitization in the private and public sector

Rapid digitization processes started in the private sector after IBM defined the concept of 'e-business' and soon after, the prefix 'e' – suggesting that an activity is electronic or digital in nature (Misuraca 2007: 56) – was everywhere. There was e-commerce, e-finance, e-enterprise, e-economy and e- 'just about anything else'. (Alter 2010: 16) Both in the private and public sector, digitization mainly takes the form of innovation in services. The logic of the underlying digital innovation, however, is somewhat different.

Studying private sector digitization processes, Friedrich et al. (2011: 16) come to the conclusion that companies which still deal in physical goods tend to operate in an essentially analogue mode, whereas those dealing in information and services (sometimes also called 'information services', cf. Rust & Lemon 2001) have quickly digitized. Leading the digitization race are thus financial services and insurance, computers and electronics, and media and telecommunications (*Ibid*.: 6). The benefits of private sector digitization are diverse – from increased resource efficiency and higher productivity

owing to automated processes and reduction of man hours (Mpinganjira & Mbango 2013: 37) to greater customer insight and reach, leading to lower customer service and transaction costs (Zoroja 2011: 120). The ultimate aim, of course, is to raise the competitiveness of companies in an attempt to set or keep up the pace with others.

While the private sector took the leading role in digitizing their business processes, the public sector – realizing the potential benefits – soon started to make a concerted effort in the same direction. There is, however, a clear distinguishing line between private and public sector digitization. Namely, while economic motivations commonly dominate reasons for adopting e-services in the private sector, digital innovation in the public sector is driven by both economic and social benefits. Some of these social benefits include the need to promote universal access to government services, increased transparency in government dealings and reduced corruption. (Mpinganjira & Mbango 2013: 37)

In the midst of public sector digital innovations such as e-health, e-procurement, e-participation, e-justice, e-learning and e-administration, the overarching concept of e-government is the most widespread. The first e-government initiatives emerged in the late 1990s and by today, e-government capabilities can vary from 'the provision of simple information via a website to the ability to conduct financial transactions and finally to the provision of a level of e-democracy such as e-voting or policy development participation' (Rose & Grant 2010: 26). As the scope of e-government capabilities has been gradually extending, the definition of e-government has evolved with it. E-government is no longer seen as a simple process of providing information or services via the internet, but as a way of transforming how citizens interact with government and how government interacts with itself' (*Ibid*.).

Governments mainly have two goals when implementing e-government systems – to enhance their service delivery and to minimize their operation costs. At the same time, governments are also developing custom-made models in order to better satisfy citizen needs and engage various stakeholders, benefitting from product personalization and service customization. (Zoroja 2011: 129) On the one hand, thus, governments seek to provide services and information in a faster and cheaper manner, and on the other hand, they seek to reduce distance between government and citizens through tailored solutions. Although the central innovation lies in what may be called 'single window' access –

opening up a single window for citizens and enterprises through which they can manage all their dealings with public bodies and thus save effort (Lenk 2006: 190), e-government thus also has a role to play in strengthening democratic processes.

1.2.2. Digital cooperation

Deliberating the importance of cooperating in today's digitized world, Richardson (2014) claims that the essence of digital cooperation lies in its ability to defy traditional hierarchies and institutions in organizing collective work. Instead, digital cooperation happens on all levels and is intertwined with decentralization processes which both transfer decision-making to lower levels of the public sector as well as creates more autonomous units within and beyond government to 'stimulate initiative, increase local responsiveness and provide tailored local solutions' (Navarra & Cornford 2012: 38) and to reduce transaction costs that would otherwise undermine effective public administration (Eggertsson 2013: 2). It follows then that if digital cooperation happens in all fields and on all levels, the task of capturing its essence becomes increasingly difficult.

In these lines, Sevaldson (2006: 1) seems to question the whole concept of digital cooperation, arguing that it is virtually impossible to find cooperation today that is not supported by digital means in the first place. In this sense, digital cooperation with its focus on the exchange of information via digital media or infrastructure is indeed not fundamentally different from what has been done before. What has to be understood, however, is that the emphasis in 'digital cooperation' is actually not on 'digital', but rather 'cooperation'. As Friedrich et al. (2012) indicate, the core of digital cooperation is not about innovative technological solutions, but about the way in which people are adapting and incorporating new ways of communicating and sharing information. As this cooperation now happens in the context of millions and millions of people, our ability to cooperate on this kind of scale is fundamentally different after all.

Of course, the frames or tools for comprehending this cooperation have yet to be developed (Richardson 2014), but the importance of doing so becomes obvious in the following metaphor, which proves that exponential growth – much like in case of digitization – seems negligible until it suddenly develops into something that is already unmanageable (The Economist 2014: 3):

> A man invents a new game, chess, and presents it to his king. The king likes it so much that he offers the inventor a reward of his choice. The man asks for one grain of rice for the first square of his chessboard, two for the second, four for the third and so on to 64. The king readily agrees, believing the request to be surprisingly modest. They start counting out the rice, and at first the amounts are tiny. But they keep doubling, and soon the next square already requires the output of a large ricefield. Not long afterwards the king has to concede defeat: even his vast riches are insufficient to provide a mountain of rice the size of Everest.

The rationale of trying to systematize digitization processes proceeds directly from this – the understanding that ICT progress is now somewhere in the second half of the chessboard and some tools need to be developed and applied in order to even begin to comprehend the complexity of digitization. Much like in the case of the previous analysis of regions, thus, we find that theorizing digitization is hard, while making it also a necessity.

In the context of this thesis, the answer is to give digitization a scope – the BSR – and a lens – MLG. This way, the otherwise elusive concepts can be framed in the context of one another – although digitization processes were mainly found to refer to digitized information (and) services in the private and public sector, these processes have also fuelled a new type of cooperation – digital cooperation – which in turn helps to break digitization down into a manageable unit of study.

1.3. Multi-level governance

Underlying MLG as a theoretical lens is a claim that the state no longer dominates over domestic preferences and policy-making – it is rather the case that both supranational and subnational actors have an increasingly independent role to play. By mobilizing various levels of actors, the advantage of MLG lies exactly in its comprehensiveness and inclusiveness – compared to neo-functionalism or intergovernmentalism, for instance, the MLG perspective allows seeing beyond power games and instead focuses on the contribution of various actors towards an end-result. In the following, MLG as a model that grew out of the specifics of EU integration will be introduced and coupled with the notion of governance networks so to better cater for the specifics of the thesis. In this sense, networked MLG is used as a tool for explaining the complex governance

mechanism surrounding digital cooperation and identifying the relevant subnational, national and supranational actors and the networks they drive.

1.3.1. Government vs governance

Despite the proliferation of the concept of governance in broader academic literature and the general agreement that the nation state increasingly depends on its ability to drive efficient cooperation with a range of independent (and interdependent) actors from transnational to local levels, there is little agreement on the definitions, scope and what actually constitutes governance (Ruhanen et al. 2010: 4). In its widest sense, governance has come to mean the decreasing role of leadership, control and hierarchy in governing processes, whereas MLG as a model seeks to explain the resulting dynamic interactions between various actors that begin to participate in policy-making and implementing.

Underlying MLG is a conceptual shift from government to governance. Simply put, governance is about more than what governments do. It refers to 'theories and issues of social coordination and the nature of all patterns of rule' and also to 'practices and dilemmas that place less emphasis than did their predecessors on hierarchy and the state'. (Bevir 2011 cited by Faludi 2012: 198) The emphasis is thus on various 'patterns of rule' beyond the state level, though the focus is still on the process of governing. Accounting for these 'other' levels, Rhodes talks about self-organizing and inter-organizational networks and elaborates on the concept of governance as 'interdependence between organizations, continuing interactions between network members, game-like interactions rooted in trust and regulated by rules of the game negotiated and agreed by network participants, a significant degree of autonomy from the state' (*Ibid.*).

Bringing more clarity to the composition and development reason of the mentioned networks, Le Galés (cited by Boman 2005: 13) sees governance as 'the coordination of public and private actors, social groups and institutions in an unstable and fragmented environment for the purpose of achieving collectively defined goals'. It can be derived from this that although the network of formal and informal actors operate in relative incoherence, they can be analyzed as one unit because of their common denominator – the wish to attain a shared goal. As such, governance can be defined as 'the capacity for collective action that involves a broad range of actors and institutions as well as informal

and formal activities at different administrative levels' (Scherbenske & Hörnström 2013: 5). This is very much in line with the previously discussed regionalism principles – whereas regionalism suggested that a shared goal between the members of a region is *what* triggers cooperation, governance enables to analyze *how* this shared goal is pursued in the interplay of various regional actors.

In political science, governance also takes on a specific role of upholding democratic values. Here, governance has been defined as the 'conscious management of regime structures with a view to enhancing the legitimacy of the public realm' (Hyden 1991 cited by Ruhanen et al. 2010). Legitimacy, once again, is closely connected to the idea of gathering various stakeholders around a public concern so to coordinate action and thus raise the acceptance of the regime. After all, 'governance is not something the state does to society, but the way society itself, and the individuals who compose it, regulate all the different aspects of their collective life' (Carino 2003: 5). This is not to say that the state level loses importance once governance appears – it continues to play a key role in enabling and facilitating participation, but operates in the background without overwhelming other actors. This way, an environment is shaped where the market and civil society can make their own creative and decisive contributions. (*Ibid.*)

Summarizing the differences between government and governance, the following characteristics can be highlighted:

GOVERNMENT	GOVERNANCE
Dominance of state power	Variety of actors negotiating
Control and compliance	Consent and participation
Formal and hierarchical structures	Formal and informal structures
Monopoly of action	Collective action
Top-down	Top-down and bottom-up interacting
FOCUS ON THE PROCESS OF GOVERNING	

Table 1: Differences between government and governance
Source: Compiled by the author (based on governance literature)

1.3.1.1. E-government vs e-governance

The same logic that underpins the 'governance turn' can be applied in a digitization context for further clarification of the theoretical lens. The most obvious example of this is what could be respectively called the 'e-governance turn'. Although the logic is similar,

it just does not seem to be that self-evident yet – for example, Misuraca (2007: 70) acknowledges that at the moment, most authors still treat e-governance as a synonym of e-government. One instance of this is the definition provided by Savic (2006: 21), who refers to e-governance as the 'process of using information technology for automating and improving government operations.' Based on this approach, one might assume that e-governance is merely a combination of ICT and government with changes in the way practices are digitized, but not in the governing process itself.

Another approach that already takes into account changes in the governing process is to make a difference by which e-governance is e-government extended to non-state actors. Contrary to the governance turn, however, this approach still treats the state as the dominant force leading the governing process. For example, it has been said that '(e-governance) establishes a relationship between government officials and citizens' (Haque & Pathrannarakul 2013: 25). However, as e-government already admits to three forms of interactions – government-to-government, government-to-business and government-to-citizen (*Ibid*.) –, meaning that e-government recognizes only top-down interactions, it follows that there must be more behind the differences of e-government and e-governance.

The underlying difference lies exactly in the way interactions take place. In case of e-government, the focus is on service delivery transactions, whereas in case of e-governance, the focus is on networked participatory interactions (Calista & Melitski 2007: 87). Underlying this fundamental difference are three changes which translate into a number of specific distinctions between the two concepts (Misuraca 2007: 68-72):

- The growing role of non-state actors, especially transnational corporations (TNCs) and non-governmental organizations (NGOs). Increasingly, the state has to share its power with these non-state actors.
- The growing emergence of levels of managing public affairs other than the nation-state level, in particular the emergence of supra-national levels (EU, global) as well as sub-national levels (local, municipal).
- The growing differentiation of state functions – service delivery, rule-making and regulatory. These functions can be increasingly treated as separate from each other and are thereby shifted to different levels and different actors.

E-GOVERNMENT	E-GOVERNANCE
An industry that governs a complex system of relationships so to provide solutions to collective problems	What have to be governed are not only the solutions to collective problems, but the manner of collectively constructing the information society
Instrument for better service delivery	Focus on accessibility, transparency, evaluation, accountability
About the 'what', governing with ICTs	About the 'how', governing of ICTs
Short-term results of introducing ICTs in a specific process	Foresight about long-term impacts
Result of rapid technological growth generating pressure for changes	Form of social engineering, innovating through non-state actors
FOCUS ON THE PROCESS OF GOVERNING	

Table 2: Difference between e-government and e-governance
Source: Adapted from Misuraca 2007: 70-72

The changes that underpin 'e-governance turn' are thus very much in line with the general 'governance turn', looking beyond state domination in the interactions of governing processes and acknowledging a diverse set of functions and interdependent levels instead of one-sided service provision with the help of modern digital technologies. According to Calista & Melitski (2007: 93), e-governance is based on a politics perspective that 'thrives on a shared interest in digitized communication and decentralized authority. That is, digitized and decentralized actors became a conduit for nurturing a networked world, which, in turn, elevates e-governance.' The emphasis is thus not on what the public sector can offer to its citizens, but what actors on all levels can do independently to contribute to a shared goal.

1.3.2. Underpinnings of MLG

Favorable grounds for advancing a polycentric theory of policy-making and implementation were set in the mid-1970s, when a general discussion emerged on the 'overload of government' and 'ungovernability of society' caused by growing individualism and the decline of public-spirited values (Torfing and Sorensen 2014: 331). As a specific response in EU studies, MLG as a concept emerged – most notably in the works of Marks, Hooghe and Blank – during the 'governance turn' in the 1980s, growing out of criticism for state-centric theories of European integration (Boman 2005: 9).

The point of contention between state-centric and polycentric theories like MLG lied in the general assumption that the same forces that explained the creation and evolution of the EU would also explain its functioning in a given point of time (Piattoni 2009b: 4). Contrary to this, MLG argued for a 'shift away from attempting to explain integration in terms of the respective roles of member states and the EU to a concern for explaining how the system actually works' (Jordan 2001 cited by Faludi 2012: 198).[1] For this, MLG seeks to capture how interactions between various actors interplay in governing processes – exactly what the intergovernmentalists and neofunctionalists failed to explain (Littoz-Monnet 2010: 2). In line with the governance turn, thus, MLG as a concept aims to accommodate the complex interplay of various actors in collective decision-making and implementation. Schmitter (2004 cited by Piattoni 2009b: 2) defines it as:

> '…an arrangement for making binding decisions that engages a multiplicity of politically independent but otherwise interdependent actors – private and public – at different levels of territorial aggregation in more-or-less continuous negotiation/deliberation/ implementation, and that does not assign exclusive policy competence or assert a stable hierarchy of political authority to any of these levels.'

Much in line with the new regionalist agenda, MLG points to the fact that state sovereignty is becoming diffused across various levels of government – upwards to international and transnational organizations; downwards to local governments, public service institutions and user boards; and outwards to emerging cross-border regions and global city networks (Torfing & Sorensen 2014: 330). According to MLG, the rationale of this diffusion of power is that a complex interplay of actors develops around diverse problems where the state alone cannot take sole responsibility. The result is a complex overlapping process which involves numerous actors that shape the final output according to their individual properties – demands, interests, resources and competencies (Ganeshalingam 2012). Digitization as a global phenomenon is clearly one of these areas where states alone do not have the capacity for efficient policy-making and

[1] As Stephenson (2013: 818) summarizes the added value of MLG in a situation where over 40 years of 'theoretical ping-pong' had been going on between intergovernmentalism and neofunctionalism, 'it gave us a simplified way of understanding what European policy-making looked like on a day-to-day basis in policy areas, were we to slice the EU down the middle to obtain a cross-section of governance activity.'

implementation, resulting in regionalization processes whereby societal actors 'join in' to offer their individual expertise.

The importance of non-governmental organizations and ad hoc networks are of a particular trademark to MLG and shows how groups such as e.g. sub-national governments, expert committees, civil society groups and voluntary associations are highly relevant actors who are able to exert influence in decision-making and are also present in policy implementation, monitoring and evaluation (Berkkan et al. 2009: 32). These actors are not nested exclusively within the realm of state preferences, but can act independently on both domestic and international arenas, creating transnational links. (Boman 2005: 9)

In relation to state powers, MLG authors do not deny that the state still remains an important actor, yet it no longer monopolizes policy-making or the aggregation of domestic interests. As such, the state is gradually losing its monopoly on public policy-making as an increasing number of private stakeholders such as interest organizations, NGOs, citizen groups, consultancy firms and businesses become involved in the formulation and implementation of public policy. (Torfing & Sorensen 2014: 330) Hereby, Torfing and Sorensen (*ibid*.) warn that we should not talk about a 'shift from government to governance' as it creates a far too simplistic image and invokes the idea of a zero-sum game according to which governance is necessarily expanding at the expense of government. In order to avoid the notion of the 'hollowing out of the state', (multi-level) governance should rather be referred to as a 'new perspective on an emerging reality'. Just as the functions of regions were found to be changing in time, fuelling more open policy-making procedures owing to globalization pressures, the same can be said about states.

1.3.2.1 MLG criticism

It is often claimed that MLG is not a theory as such, but rather a method to explain how governance can take place at different levels (Berkkan 2009: 12). In the same lines, Rosamond (cited by Boman 2005: 10-11) criticizes MLG for its theoretical deficiency, calling it rather 'an organizing metaphor' than a theory as its main goal is descriptive – capturing the complex nature of a MLG system rather than predicting its dynamics.

In the context of this thesis, however, this criticism is not particularly significant – it rather complements its purpose. First and foremost, as it was found that digitization is exponentially growing and might already be beyond our comprehension, an 'organizing metaphor' is exactly what is needed. Moreover, MLG is not used in the context of this thesis as a testable theory or a ground on which to build predictions, but as an analytical tool that helps to frame the governance system of BSR digital cooperation and account for the complex interplay of the respective actors. As it was claimed that the field is relatively unexplored, the aim is to form a wider perspective of BSR digital cooperation rather than to guesstimate how much power each level of actors has in driving BSR digital cooperation. In line with the method of process-tracing introduced in the next chapter, good description is the basis of understanding the context in which cooperation takes place.

One of the key criticisms of MLG has also been its inconclusiveness in distinguishing governance from other descriptions of participation. As the underlying claim is indeed the same – that an increase in the number of actors and levels involved in policy-making can often be observed – MLG is criticized for not providing enough empirical indicators that imply whether we are witnessing governance or participation in a specific context. There is a clear dividing line that separates the MLG approach from other discourse on increased participation, however – 'participation refers to engagement in the decision-making process, while governance infers that engagement involves some influence over the outcomes of this process'. (Bache 2008: 31) This indicates that besides increased participation in policy formulation, the actors of MLG also have an important role in implementing and realizing policies.

The third 'set of criticisms' MLG has been subject to rather concern differing conceptions of the world than actual shortcomings of MLG. Namely, some believe that the organization of levels implies a hierarchical order which cannot be possible in such a complex process. Others completely fail to distinguish between levels since public and private actors seem to operate in interlocking roles both domestically and internationally. Also, state-centric theories such as realism reject the idea of a supranational level with its own authority, considering international organizations as mere tools which are established for the sole purpose of serving state interests. (Ganeshalingam 2012) In these lines, Bache (cited by Boman 2005: 11) concludes that it is premature to assign much

autonomy to other levels because the state still remains a 'gate keeper' in the policy-making processes, allowing other units to participate but not to significantly affect the policy outcomes. This criticism, however, does not seem to explain in sufficient detail why the fact that states remain gate keepers eliminates the chance that other governance levels might have a considerable effect on policy outcomes.

1.3.3. Governance networks

Despite the fact that MLG offers a suitable organizing metaphor for analyzing digital cooperation and the involved actors on various levels, the theoretical lens should also enable to say something about the essence of these actors. For this, the thesis also draws on a rather new concept most notably advanced by Torfing and Sorensen – that of governance networks. As the governance turn can be treated synonymous with the proliferation of networks on a scale not witnessed before, the notion of governing through networks helps to say who the actors behind a regionalism project are and as such complements MLG, which remains the focus as a tool for identifying various levels of (networked) actors.

A network could be understood as 'a social system in which actors develop comparatively durable patterns of interaction and communication aimed at policy problems or policy programs' (Bressers & O'Toole 1998: 218). Combining the concepts of networks and governance, Torfing and Sorensen (2014: 342) claim that while the European governance debate is still seeking for commonly agreed upon definitions and typologies of governance, the research on governance networks has developed into a new political science paradigm based on clear concepts, sound theories and a rapidly expanding research agenda. The authors add that governance networks, despite the fact that they might be unstable and diffuse, deserve scholarly attention because they add considerably to the current transformation of the form and functioning of government and because they create new spaces of governance by breaking down the traditional dichotomies of state and society, public and private, local and global (Torfing & Sorensen 2009: 236).

Similarly to MLG in general, networked governance occurs in complicated situations that span across various administrative boundaries – Huppe and Creech (2012: 1), for example, suggest that polycentric arrangements such as networked governance produce

beneficial solutions wherever policy problems exceed a certain level of complexity and where existing institutions alone cannot manage these problems. Marcussen and Torfing (cited by Torfing and Sorensen 2014: 223) similarly claim that governance networks aim to respond to 'complex, conflict-ridden and ill-defined policy problems' and as such have five main characteristics:

- Network governance is a relatively stable horizontal articulation of interdependent, but operationally autonomous actors from the public and/or private sector, who
- interact with one another through ongoing negotiations, which
- take place within a relative institutionalized framework with regulative, normative, cognitive and imaginary elements,
- facilitate self-regulation in the shadow of hierarchy (a kind of broadened autonomy), and
- contribute to the production of public purpose in the broad sense of public values, visions, plans, standards, regulations and concrete decisions.

Combining these characteristics with the ones advanced by Dumoulin (2013, Table 3), we could expect that governance networks appear in a relatively institutionalized setting – as will also be demonstrated in case of the BSR – in response to emerging and still ill-defined policy problems – much like in case of digitization. Thereby, the networks steadily move towards solving the mutually perceived policy problem by learning from each other's experience and expertise and finding synergies that lead to multi-level cooperation.

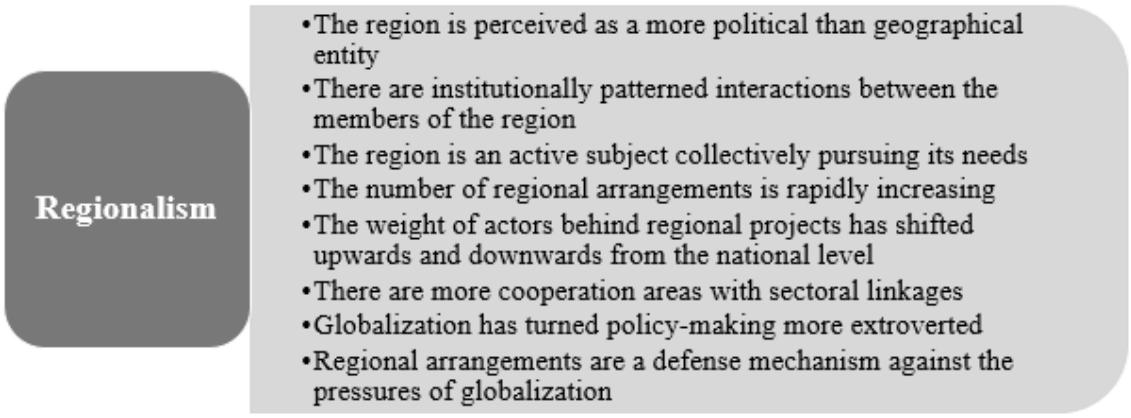
DIMENSION	NETWORK GOVERNANCE
Key feature	Public value
Main virtue	Flexibility, proactiveness
Common goal	Developing relations
Means of communication	Relations
Government role	Partner in a large network
Strategy	Learning, deliberation, multiple partners

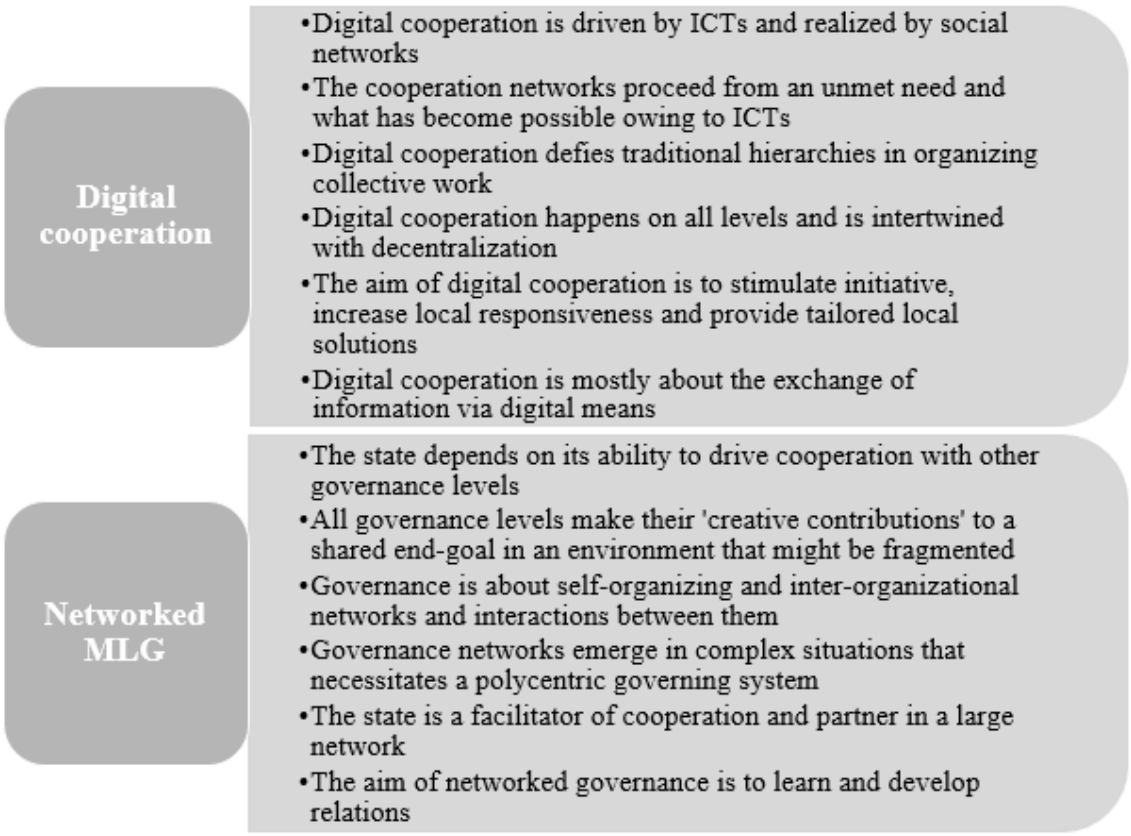
Table 3: Dimensions of networked governance
Source: Adapted from Dumoulin 2013

Continuing with the work of Torfing and Sorensen (2014: 335), the authors assert that governance networks may have a variety of different functions. Whereas some governance networks simply aim to contribute to the exchange of knowledge, information and ideas in order to facilitate well-informed decision-making, other networks seek to coordinate actions so to create complementarities. Even more ambitious governance networks might attempt to develop a common understanding of emerging policy problems and to formulate and implement joint solutions. Governance networks also have different forms as they might be either self-grown from below or initiated from above; intra-organizational or inter-organizational; open and loosely connected or closed and highly integrated; short-lived or relatively permanent; and sector-specific or society-wide. Last but not least, governance networks carry many different labels as they are frequently referred to as e.g. think tanks, strategic alliances, task forces, committees and commissions. (*Ibid*.) Governance networks are thus rather fluid in their nature and assume a form and function according to the policy problem at hand.

1.4. Theoretical synthesis

Summing up the principles of the three concepts that will be assumed in the thesis, the following aspects should be stressed:





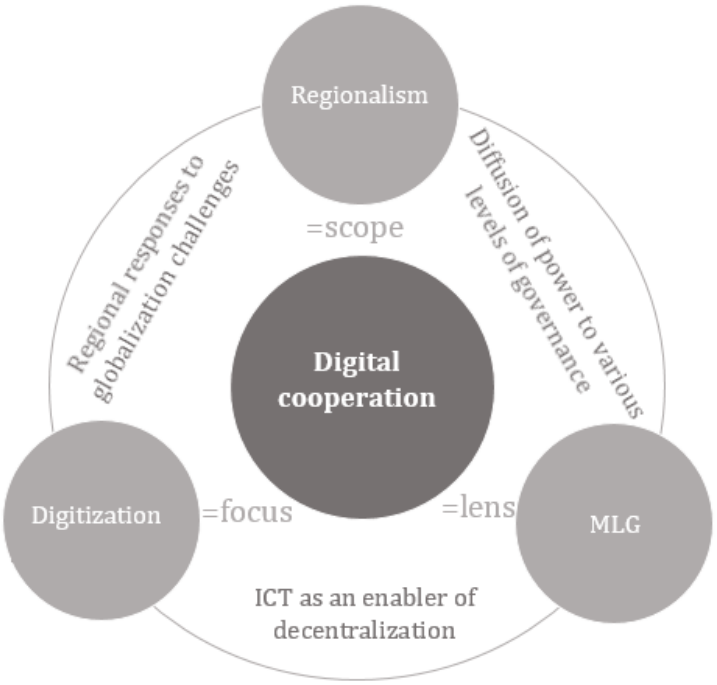
Graph 3: Theoretical assumptions of the thesis
Source: Compiled by the author (based on literature)

Despite appearing like three somewhat distant concepts, regionalism, digitization and MLG in their essence share many foundations crucial to the study focus. First and foremost, it was found that some frames need to be developed in order to grasp the complexity of digitization as a global phenomenon. As nowadays, virtually all cooperation is arguably fuelled by the exchange of data via digital media, the concept of digital cooperation might be the first step towards understanding these processes. Ultimately, as digital cooperation is more about the 'cooperation' as a collective action towards a common goal than the 'digital' (technologies), it can be said that although ICTs as a passive component drive digital cooperation, it is essentially realized by social networks as the active component. This, in turn, is related to the other two concepts that underpin collective action through networked arrangements.

Firstly, new regionalism provides a suitable framework for systematizing digital cooperation because of its commitment to globalization processes. The underlying assumption is that regional digital cooperation networks emerge in response to the need

of reacting to the pressures of globalization through local (in this sense regional) means, especially in areas where state alone cannot cope – digitization, as concluded, is definitely one of these areas, demanding for more extroverted policy-making. These emerging 'arrangements' and the patterned interactions between them, in turn, change the weights that various governance levels have both in upward and downward directions. The networks that are therefore behind a regional project to the likes of the BSR turn the region into an active subject with a complex interplay of actors on various levels, all working towards a similar end goal through their own interests, needs and agendas.

Secondly, whereas new regionalism looks beyond the state level, the concept of MLG helps to explore how the interplay of the underlying actors looks like. In line with the assumption that the nation state increasingly depends on its ability to drive efficient cooperation with other actors as society has become more and more 'ungovernable', it follows that the actor levels and their contribution to the wider public good have to be explored in order to begin to comprehend how modern information societies are being collectively constructed. As such, governance is fundamentally multi-level and networked, whereas the state role has not been hollowed out – it is rather the case that states are metagoverning networks, thus exercising power in new ways.



Graph 4: Theoretical framework of the thesis
Source: Compiled by the author

Proceeding from the main principles of the concepts and their interconnections, we might assume that digital cooperation in the Baltic Sea Region has the following characteristics:

- *In pursuing digital cooperation on the regional level, aspects regarding geographical proximity are downplayed compared to the benefits of treating the region as a political project;*
- *An increasing number of digital cooperation networks on all levels of governance are observable in the region with the main aim of developing mutual relations and sharing experience;*
- *The observable digital cooperation networks are flexible, task-specific and need-based, while contributing to a mutually perceived common good;*
- *The governance system of digital cooperation is fragmented with no clear-cut interconnections and no central actors or decision-making;*
- *The role of states is to facilitate cooperation and act as a cooperation partner, diffusing power to both supra- as well as sub-national actors in a process of decentralization;*
- *Digital cooperation in the region is mainly focused on exchanging information with the help of using modern ICTs and overcoming the related cross-border barriers.*

CHAPTER 2
Methodological framework

In the first chapter, the main points of departure of this thesis were introduced. It was clarified that the thesis takes a new regionalist perspective, which is in essence very much intertwined with the theoretical focus of MLG, stressing the importance of looking beyond state domination and accounting for various actor networks who contribute to regionalism projects. Also, the processes of digitization were described and a conclusion was reached that digital cooperation as a regional response to globalization pressures is a suitable context in which to systematize digitization. These principles lead up to the second chapter, which introduces the methodological framework of the thesis along with justifying the BSR as its unit of analysis.

2.1. BSR as the unit of analysis

The BSR is typically identified through a political concept of macro-regionalism that has very strong connections to EU policy-making. As such, the region is usually seen to consist of three Nordic countries – Finland, Sweden and Denmark – the three Baltic countries – Estonia, Latvia and Lithuania – as well as Germany and Poland. In the following, the main features of the BSR as a political macro-region will be elaborated on, explaining the importance of the region as a unit of analysis in the field of digital cooperation. For this, the same three concepts – regionalism, digitization and governance – will be used, revealing that the BSR countries are digitally more advanced than the EU average and cooperation in the region is mainly fuelled by its institutional set-up and embeddedness in wider EU governance.

2.1.1. BSR as a macro-region

Macro-regions, macro-regionalism and macro-regional cooperation are relatively new political concepts – the launch of the EU Strategy for the Baltic Sea Region (EUSBSR) in 2009 can be seen as the first 'experiment' with macro-regionalism. The strategy was created so to bring Estonia, Latvia, Lithuania, Finland, Sweden, Denmark, Poland and Germany together in a so-called 'macro-region', which was not initially even explained as a concept. The Commission formally defined and applied the concept of macro-region in the position paper 'Macro-regional strategies in the European Union'. According to this paper, a macro-region is 'an area including territory from a number of different countries or regions associated with one or more common features or challenges.' Despite this rather broad definition, it is now clear that macro-regional cooperation represents a new type of EU policy that is not directly comparable to any of the existing forms of cooperation of the Union. (Berkkan et al. 2009: 4)

The idea for a strategy for the BSR emerged already during the first decade of the 21st century. At first, the idea was primarily lobbied by Finland, Estonia, Latvia, Germany and, more interestingly, Great Britain, demanding for enhanced cooperation between EU institutions and regional cooperation forms. (North 2012: 12) The initiative was even more actively advanced by Sweden from 2007 and, after two years, an Action Plan was concluded, which in turn reached the implementation stage in 2010 (Kristensen 2011: 147). As the countries in the region share many common resources and demonstrate considerable interdependence, the main objectives of the strategy were formulated as follows: promoting a sustainable environment, enhancing the region's prosperity, increasing accessibility and attractiveness as well as ensuring safety and security (Report from the Commission… 2011: 1). The focus areas were combined into one coherent strategy and the whole region effectively became a model where new ideas could be tested and problems tackled or solved on the level of a region.

With the Eastern enlargement, the Baltic Sea in essence became an EU internal sea. Although a relatively high level of homogeneity between the countries could be observed in economic, environmental and cultural terms before, the fact that the region became more unified in its institutional setting also provided the opportunity to tackle mutual problem areas more effectively and bindingly, while bringing together stakeholders from various levels. It can be thus said that the BSR macro-regional project under the EUSBSR

is a 'litmus test' for a new mode of governance, that is expected to '… practically implement the objective of territorial cohesion introduced by the Lisbon Treaty and bring about concrete improvements in a series of policy areas'. Even more, the strategy signals that a new level of policy-making is emerging in the EU, located between the nation state and the supranational community. (Schymik 2011: 5) For all of these reasons, the BSR is an important case to study in shaping an understanding of where governance and cooperation in the EU is heading.

2.1.2. Digitization in the BSR

Although the concept of digitization has already developed over decades, it is still surrounded by a lack of standard performance indicators to measure the extent to which ICT is rooted in societies. As one approach, the EU has developed a Smart Europe sub-index which also includes the Digital Agenda pillar. The aim of the sub-index is to measure the extent to which European countries are driving economies that are based on knowledge and innovation, whereas its digital pillar measures the extent to which the economies have harnessed ICT to share knowledge and enhance the productivity of their industries[2] (The Europe 2020 Competitiveness Report… 2012).

Based on the 2012 report (Table 4, left), it can be seen that the BSR (EU members) is on the average performing better at digitization than the rest of the EU. As many as five BSR countries are positioned in the top ten, whereas only the UK (ranking 1st) and the Netherlands (ranking 3rd) interfere in the top seven as non-BSR countries. The Nordic countries are without doubt the European frontrunners in digitization, whereas Estonia is the biggest 'outlier' among Eastern European countries. Based on competitiveness patterns, the report even goes as far as placing Estonia among Western Europe in an attempt to define the 'four Europes' of competitiveness[3]. Lithuania, Latvia and Poland are currently performing below EU average.

[2] The digital pillar consists of indicators such as government prioritization of ICT, internet users, extent of business internet use, ICT access for all basic services, e-participation index, ICT and business model creation (The Europe 2020 Competitiveness Report… 2012).

[3] Including besides the digital dimension also enterprise environment, innovativeness, education, labor market, social inclusion and environmental stability (*Ibid*.).

Besides this digital sub-index, the Commission has recently also developed a new index specifically meant to measure digital progress in European countries – the Digital Economy and Society Index (DESI). The composite index of 30 indicators includes aspects regarding connectivity (how widespread, fast and affordable broadband is), human capital (internet skills), use of internet (from news to shopping), integration of digital technology (e.g. e-invoices, cloud services and e-commerce) and digital public services (e.g. e-government and e-health). (European Commission 2015)

According to these most recent results regarding digitization (Table 4, right), the ranking is somewhat different than the analyzed digital pillar. The Nordic countries are once again among the most digitized economies with Denmark and Sweden occupying the top two positions. The top seven also includes the Netherlands (3rd) and the UK (6th) among non-BSR countries, this time also accompanied by Belgium (5th). The overall pattern is similar, however – the Nordics and Estonia raising the BSR score, Germany and Lithuania among the average performers and Latvia and Poland somewhat lagging behind. In sum of these two indices, it nevertheless becomes clear why the BSR deserves special attention as the unit of study in the digitization context – the region includes one of the top performers in the EU, but on the average also performs better than the EU, indicating the leading role of the region in driving EU digitization processes.

BSR country	Rank in EU 27	Digital score
Sweden	2	6.13
Denmark	6	5.86
Finland	4	6.07
Estonia	5	5.94
Latvia	20	4.60
Lithuania	11	5.35
Germany	7	5.69
Poland	23	4.44
EU average		**5.44**
BSR average		**5.51**

BSR country	Rank in EU 28	Composite DESI
Sweden	2	0.66
Denmark	1	0.68
Finland	4	0.62
Estonia	7	0.54
Latvia	18	0.43
Lithuania	11	0.5
Germany	10	0.51
Poland	23	0.38
EU average		**0.47**
BSR average		**0.54**

Table 4: Smart Europe digital pillar 2012 (left) and DESI 2015 (right) in the BSR
Source: European Commission

2.1.3. Governance in the BSR

The governing system of the BSR as we know it today – characterized by a complex network of subnational, national, international, supranational and transnational actors – is first and foremost the result of events which were set in motion in the 90's. Or as Behr and Jokela (2011: 1-6) claim, the 'seemingly unstoppable growth of regional organizations since the end of the Cold War has been one of the defining characteristics of the current international system'. This is especially true for the BSR, when keeping in mind the wealth of cooperation formats that emerged during the period, e.g. international regimes like the Helsinki Convention, transnational networks like the Union of the Baltic Cities, transnational policy networks like the Baltic 21 and intergovernmental institutions like the Council of the Baltic Sea States. These regionalism processes signaled a new type of governance whereby increasing importance was assigned to levels below, above and beside the nation state.

At the same time, BSR governance has become increasingly embedded in the wider system of EU governance (Kern & Gänzle 2013: 10). After all, the 2004 enlargement effectively left the Baltic Sea surrounded by EU member states with the exception of Russia and, depending of the definitions of the BSR scope in general, Norway. Fuelled by the opportunities that the more solidly institutionalized setting of the EU can offer to solving common regional problems more effectively, a fundamental change in the governing system of the BSR began to take place (Kern, Löffelsend 2004: 1), raising talks of transferring BSR decision-making to a sphere between the state and supranational level. Kern (2011: 27) ascribes the root of these 'Europeanization' processes in the BSR both to economic and political factors. Most importantly, as the EU candidate countries were put under a lot of pressure to comply with the *acquis communautaire* in a process of 'governance by conditionality' in the pre-accession phase, the (by now) member states already came to prioritize EU policies on the regional level as well. Thus, promoting economic interdependence and political stability in the BSR as basic strategic objectives has added a decidedly European dimension to BSR governance (Scott 2003: 137).

The first steps towards this increased presence of the EU in BSR governance were already taken in the mid-90's, when the accession of Sweden and Finland gave the EU an extensive role in the region. The next great EU milestone came a few years later – in 1999, the Northern Dimension was launched, indicating a special emphasis on Russia,

Norway and Iceland as EU's northern neighbours and presenting a number of 'soft targets' in e.g. cross-border cooperation and environmental policy. Not less important is the role of various regional EU policy instruments for projects under e.g. Interreg that promote extensive networking in the BSR (Kern, Löffelsend 2004: 26-27). The involvement of the EU in various regional initiatives such as HELCOM, Baltic 21 and the Council of the Baltic Sea States has solidified EU's presence even further. These are just a few examples indicating the ever-increasing influence of the EU in the BSR.

However, by far the strongest indication of EU governance in the BSR emerged with the analytical concept of macro-regionalism and the subsequent adoption of the EUSBSR. It is said that the emergence of macro-regions indicated a new governance in the EU – one that on the wider level preserves common assets (e.g. the euro), but one that develops regional powerhouses like the BSR under principles of subsidiarity (Stahl 2009). As Berkkan et al. (2009: 44) claim, 'the involvement of the EU in the EUSBSR signified a strong hands-on approach in the governance of the region', which had the rationale of both simplifying and making the architectural structures more efficient as well as to make EU more relevant for the citizens, businesses and organizations of the BSR.[4] As such, we might expect that besides its pre-institutionalized setting where governance networks could flourish, digital cooperation in the BSR is very much influenced by its embeddedness in wider EU governance.

2.2. Research methods and questions

The thesis assumes case study research as its main method. The appropriateness of case study research in the context of this thesis is expressed by Yin's (2009: 14 cited by Willis 2014) explanation of the method as 'an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomena and context are not clearly evident'. As such, the method complements the purpose of the thesis as it enables to develop a 'thick description' (Geertz 1973, *ibid*.) of digital cooperation as a complex phenomenon in an actual setting – the Baltic Sea Region. As digital cooperation was found to be rather under-studied in

[4] Thereby, Marcinkute (2013) stresses that an effective MLG is key to the success of the EUSBSR. The aim is to establish a deepened dialogue between actors at all levels of governance in the BSR on how to jointly tackle future problems and challenges.

regionalism literature, the method enables to give a holistic account of the study focus by developing a versatile narrative around it.

Case studies are often criticized in the lines of subjectivity and generalizability[5]. These 'risks' surrounding case study research will be mitigated in a number of ways. To start with, the thesis seeks to combine both theoretical and practical knowledge – the assumptions that were developed based on the theoretical synthesis will be reviewed in light of empirical data and conclusions on the emerging governance model of BSR digital cooperation will be drawn. In fact, case studies can be seen to have a specific methodological rigor as they ''close in' on real-life situations and test views directly in relation to phenomena as they unfold in practice' (Flyvberg 2006: 19). For developing an even more versatile narrative and diminishing the methodological critique of case study research, complementary methods like process-tracing and interviewing are also employed.

Also, it is said that a strategic choice of cases is necessary for avoiding generalization issues (*Ibid*.: 13). In this sense, the five levels and examples of governance serve as a 'strategic choice' in that they provide various perspectives of the same central case, thus increasing the reliability of the results. The lessons learned in the context of one regionalism project, in turn, can both complement and compete with other regionalism cases, e.g. other EU macro-regions (the Danube Region, the Adriatic Ionian Region, the Alpine Region). Last but not least, Flyvberg (2006: 21) defends the case study method by saying that a hard-to-summarize narrative is not a problem to case study researchers as it is a sign that 'the study has uncovered a particularly rich problematic'. The goal is then to allow the study to mean different things to different people, not summarize the complexity in statements that fall on the general side.

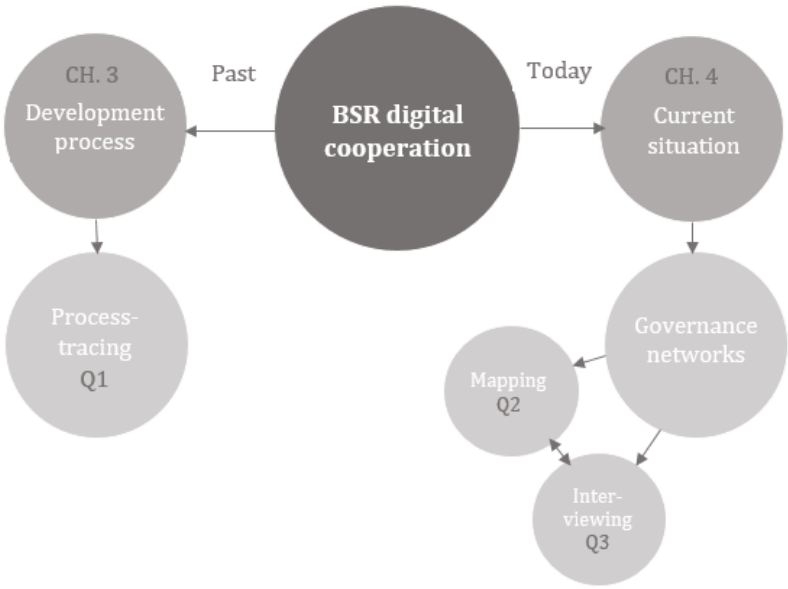
All in all, the thesis aims to answer three principal questions so to draw a 'bigger picture' of BSR digital cooperation as the case study:

[5] The main criticism is well summarized by Flyvberg (2006: 1), who claims that there are five common misunderstandings about case study research: (i) theoretical knowledge is more valuable than practical knowledge; (ii) one cannot generalize from a single case, therefore the single case study cannot contribute to scientific development; (iii) the case study is most useful for generating hypotheses, while other methods are more suitable for hypotheses testing and theory building; (iv) the case study contains bias toward verification; and (v) it is often difficult to summarize specific case studies.

1. **How has digital cooperation developed in the BSR regional context?**
2. **How is MLG expressed in today's BSR digital cooperation?**
3. **What form of digital cooperation do we have in the BSR?**

The first question implies looking back in time, identifying the major milestones that together conditioned the current situation whereby cooperation networks have emerged on various levels to collectively construct BSR digital governance. For this purpose, the process-tracing method is used as a tool to identify and account for the various events in time that, in combination, 'produced' digital cooperation in the BSR. The knowledge gained from this method will serve as an introduction into understanding why we are witnessing the kind of digital cooperation in the BSR as we are currently witnessing.

The second and third question account for BSR digital cooperation as it is today – governed by cooperation networks in an emerging governance model as assumed in the theoretical section. Through desk research and expert interviews, several of these cooperation networks are mapped and analyzed. This results in observable patterns of BSR digital cooperation that will be coupled with the theoretical assumptions to form a wider understanding of BSR digital cooperation together with its main actors, obstacles and enablers. All in all, the design of the empirical part of this thesis along with the main methods and research questions can be visualized as follows:



Graph 5: Methodological framework of the thesis
Source: Compiled by the author

2.2.1. Phase 1 – process-tracing

In the first phase of the methodological approach, the events triggering BSR digital cooperation are process-traced. This method is suitable for the purpose of analyzing the development of digital cooperation in the BSR as it enables to look at causal relationships in specific cases, thus shedding light on the factors that conditioned the outcome, i.e. the current situation where digital cooperation networks can be observed on various levels of governance in the BSR.

Widely used by authors like Jacobs, Elman, Bennet, Hall, Checkel, George and Lehtonen, process-tracing (PT) in political science is often understood as an ambition to trace causal mechanisms (Beach and Pedersen 2011: 4). Collier (2011: 823-824), for instance, defines PT as the 'systematic examination of diagnostic evidence selected and analyzed in light of research questions and hypotheses posed by the investigator', elaborating that the diagnostic pieces of evidence are often understood as part of a temporal sequence of events or phenomena. The keywords are thus diagnostic evidence and the temporal sequence of events. The central question to ask when applying the method is the following (A User's Guide… 2011):

> *How does X produce a series of conditions that come together in some way (or do not) to produce Y?*

By stressing the causal process that leads to certain outcomes, thus, the value of PT lies in validating theoretical predictions and hypotheses. Looking at a series of sources that pertain to a case in terms of the sequence and structure of events can thereby serve as evidence that a proposed theoretical hypothesis is indeed evident and observable. (*Ibid.*) Collier (2011: 824) categorizes the power of PT in providing answers to diverse research objectives:

- Identifying novel political and social phenomena and systematically describing them;
- Evaluating prior explanatory hypotheses, discovering new hypotheses and assessing these new causal claims;
- Gaining insight into causal mechanisms.

According to Bennet and Checkel (2012: 23), a key step in process-tracing is to develop case-specific observable implications of the theories in question as theories are rarely specific enough to offer tight predictions on the observable implications that should be evident in a particular case. As it was found in justifying the case selection that BSR cooperation is first and foremost characterized by a pre-institutionalized setting and a deep embeddedness in EU governance, these are treated as the 'deciding factors' in the emergence of the digital cooperation networks. As such, the main source of evidence for completing the process-tracing are EU and BSR-level strategic documents that are desk-researched. EU governance and BSR institutionalization are thereby translated into two main strategies – the EU 2020 Agenda and the EUSBSR, respectively. Changes in these documents will be accounted for in order to test whether these two aspects might explain the case.

2.2.2. Phase 2 – mapping and interviewing

The second phase aims to account for the dynamics of BSR digital cooperation as it is today. Suitably for evaluating theoretical assumptions (much like the ones presented in the theoretical synthesis) about governance networks in a real-life context, Huppe and Creech (2012: 25) propose a simple three-step approach that allows to characterize network governance systems, thus serving as an important point of departure in second phase of the methodology:

1. Identify stakeholders
2. Differentiate between and categorize stakeholders
3. Investigate relationships between stakeholders

To start with, evidence that digital cooperation is indeed pursued in the BSR on various levels of MLG is gathered through desk research. Regional networks addressing digital cooperation are identified and categorized on five levels of MLG – regional, intergovernmental, national, sub-national and the civil society level – and analyzed as various perspectives of the case study. Each governance level is thereby represented by one network, amounting to five perspectives which are explored through expert interviews. As such, the aim is demonstrate practical examples of digital governance networks 'in action' while contributing to the overall goal of forming an understanding

of the essence of BSR digital cooperation and the interactions of the involved MLG actors.

The main condition for choosing the governance networks was that the initiatives should all have the underlying aim of promoting BSR digital cooperation. After identifying and categorizing the networks, the representatives of each of the networks were contacted for conducting interviews. Altogether, seven representatives agreed to share their specific experience and general thoughts on BSR digital cooperation in expert interviews. The interviews were semi-structured in form, meaning that a list of questions were used as the 'guide' (see Appendix 2), but relevant topics that came up during discussion were also elaborated on. This is especially important in the context of case studies, which should account for a variety of perspectives and aspects that the researcher might not foresee.

A summary of the digital cooperation networks, their categories and respective contact persons who were interviewed is presented in the following.

INTER-VIEW	MLG LEVEL	GOVERNANCE NETWORK	INTERVIEWEE	INSTITUTION
A	(Macro-)regional	Top of Digital Europe	Torben Aaberg	Baltic Development Forum
B	Intergovernmental	NB8 cyber cooperation	Patrik Maldre, Helena Sepandi	Estonian Ministry of Foreign Affairs
C	National	X-Road Europe	Liina Areng	Estonian Information System Authority
D	Sub-national	Digital Baltic	Britt Vahter, Gady Künnapuu	Võru County Government
E	Civil society	BSR TaxI	Marit Lani	e-Governance Academy

Table 5: BSR digital cooperation networks
Source: Compiled by the author

Two of the networks have developed through projects – both Digital Baltic, which focuses on open data and public sector information, as well as BSR TaxI, which focuses on the exchange of tax information, are cooperation projects funded under regional EU instruments. The other networks have a slightly different dynamic. X-Road Europe is treated as a network because of its emerging cross-border dimension that seeks to implement the X-Road data exchange platform developed in Estonia in nearby countries, most notably the Nordics. The NB8 is an intergovernmental cooperation network

connecting the Nordic-Baltic countries and recently, a digital dimension was introduced in their agenda. Finally, Top of Digital Europe is a brand new regional think-tank growing out of the BDF (Baltic Development Forum) network that promotes the image of the BSR as an ICT frontrunner. In one way or another, thus, all the networks contribute to the common goal of advancing BSR digital cooperation.[6]

Besides the networks that were chosen as the case studies to be mapped in more detail, there are many digital networks that deserve mentioning, but which do not qualify in the context of this study as they (i) do not have a BSR scope and/or (ii) have been discontinued as a network. These honorable mentions include projects like BALLAD[7] (Baltic Living Labs), Innovative Nordic Digital Solutions[8], e-SENS[9] (Electronic Simple European Networked Services), OUP[10] (Opening Up) and eCitizen II[11] (Toward citizen-centered e-Government in European cities and regions).

[6] An in-depth overview of the networks is presented in Appendix 1 and the mapping results in Appendix 3.

[7] A project under the Central Baltic Program that lasted from 2010 to 2012. In line with the priority 'economically competitive and innovative region', the project aimed at promoting a single market for digital broadband-based services by creating a living labs network. Led by partners from Sweden, Finland, Estonia and Latvia, the objective of the project was to provide support to SMEs in the field of digital services, enabling them to adapt their products to local variations. (Central Baltic 2010)

[8] Innovative Nordic Digital Solutions – a project under the Nordic Lighthouse Projects 2014-2017 that is still under development. The project aims to remove barriers to a common Nordic digital market and supports the development of new and innovative solutions that can be applied in the Nordic countries. The idea is to strengthen the Nordic region as a digital frontrunner and prepare for a digital single market in Europe. (Norden 2014)

[9] A pan-European project funded under the ICT Policy Support Program of the Competitiveness and Innovation Framework. Running from 2013-2016, the objective of the project is to facilitate the access of citizens and businesses to public services across borders. The keywords include online public administration, interoperability of national systems and re-usable solutions for e-services. From the BSR, Denmark, Germany, Poland, Sweden and Estonia are involved in the project. (e-SENS 2015)

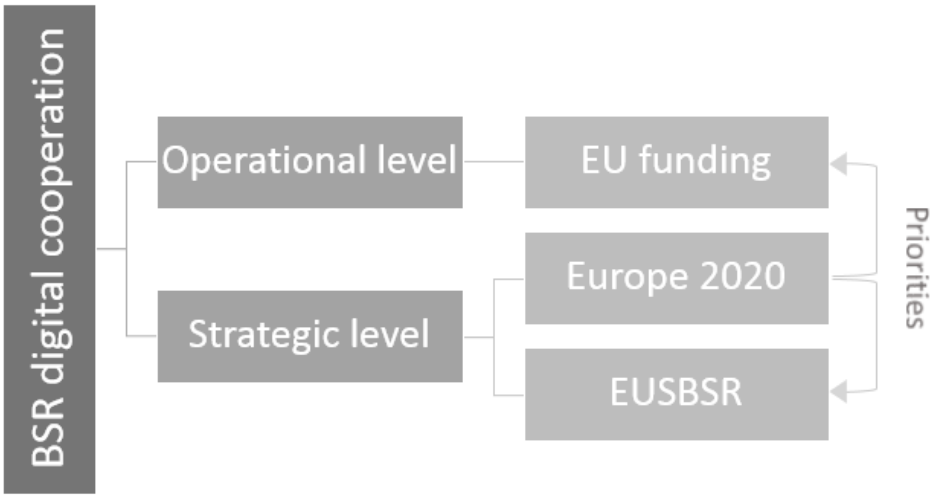
[10] A project under the North Sea Region Program that lasted from 2011-2014. The objective was to help governments and companies to develop innovative services through the use of open data and to encourage a smart use of social media. As part of the project, a network of practitioners was established to boost the integration of social media in government-citizen, government-business and government-government relations. The project involved partners from the Netherlands, Belgium, Sweden, Norway, Denmark and UK. (Opening Up 2011)

[11] A project under the Interreg IV C program that lasted from 2010-2013. The aim of the project was to support European cities and regions in their e-Government efforts through exploiting established networks, sharing experiences and good practices to improve interaction between citizens and public authorities and better involving citizens in local decision-making. From the BSR countries, the project included Finland, Estonia and Denmark. (the Baltic Institute of Finland 2010)

CHAPTER 3

The development of BSR digital cooperation

Process-tracing the development of BSR digital cooperation revealed that there are two dimensions to be analyzed which, in combination, provided a suitable setting for digital cooperation networks to emerge in the region. On the one hand is the strategic dimension. Avoiding any longer excursions to the development processes of e.g. the macro-regional policy and the Cohesion Policy, it can be simplified that the strategic conditions for digital cooperation to appear were fulfilled by the EUSBSR, which reinforced the image and institutional setting of the BSR as a unified region, and the Europe 2020 Strategy, which laid down the ultimate goals of digital growth, including the development of the digital single market. On the other hand, the strategic level is complemented by an operational level, which mainly lies in providing financial incentives for networks to emerge in response to the challenges set down in strategic documents. This condition is mainly fulfilled by the agenda of European Territorial Cooperation funded by the European Regional Development Fund.



Graph 6: Conditions for the emergence of BSR digital cooperation
Source: Compiled by the author

3.1. Stage I: EUSBSR as the first indication

In the first phase, the BSR received a more institutional setting through formalizing the EUSBSR and was thus 'empowered' as a regionalism project. Though no direct commitment is yet made to the digital dimension of regional cooperation, the first indication can be seen in one of the priority actions (PA) of the Strategy's Action Plan – 'To remove hindrances to the internal market in the Baltic Sea Region including to improve cooperation in the customs and tax area' – which is coordinated by Estonia (SEC 2009a: 25). The main argument is that BSR markets are relatively small and therefore dependent on regional trade in keeping up their competitiveness, but several obstacles still exist in trading goods and services in the BSR. This signals the need for measures that would reduce administrative barriers to trade and the constraints that borders impose on intensifying cooperation, thus having a clear integrational goal. As the Action Plan itself says, 'better integration is needed if the region is to maintain and improve its position as a prosperous region'. Besides trade, the PA sets it as a priority to strengthen cross-border tax cooperation in an attempt to combat tax fraud and evasion. One of the main obstacles is claimed to be the legal framework of the single market that is not yet functioning as well as it should. (*Ibid*.: 26)

As a response to these aims, several strategic actions are proposed in the Action Plan. One of them – having a more digital nature – is 'Remove remaining barriers to the cross-border provision of services', which prescribes the BSR countries to put in place a variety of practical measures such as Points of Single Contact for service providers, electronic procedures and administrative cooperation (*Ibid*.: 27). One of the flagship projects, 'Increase the use of electronic signatures/e-identification', is a good example of an emerging digital agenda. The aim of this flagship is to work towards the cross-border interoperability of electronic signatures and authentication applications. (*Ibid*.: 28)

It is emphasized, however, that all cooperation on the internal market issues are on a voluntary basis and no new structures will be imposed as a result of the strategy. It is rather the case that regional actors in the BSR have to prove that such cooperation is possible, after which this experience can be shared with other Member States. The conclusion is that 'joint projects should be developed within the field of information

society.' (*Ibid*.) This gives the first indication of how digital cooperation could look like in the region – governed by networks that undertake joint projects on voluntary and need-based grounds and demonstrate success stories on various levels without necessitating any new structures, i.e. states-led institutions.

3.2. Stage II: EU-level priorities in the Digital Agenda

As the second strategic landmark, the Europe 2020 Strategy was proposed by the Commission in 2010. With the Strategy, three mutually reinforcing priorities were set – smart, sustainable and inclusive growth. Under the smart growth priority, knowledge and innovation are addressed as the drivers of future growth, while it is stated that 'this requires improving the quality of our education, strengthening our research performance, promoting innovation and knowledge transfer throughout the Union, making full use of information and communication technologies and ensuring that innovative ideas can be turned into new products that create growth, quality jobs and help address European and global societal challenges[12].' (COM 2010: 11)

As one measure devised to tackle these challenges and boost Europe's digital growth, the Strategy introduces a flagship initiative called 'A Digital Agenda for Europe' (DAE), which foresees the following responsibilities for the EU in general and the member states in specific (*Ibid*.):

- On the EU level, the Commission will work to e.g. provide a stable legal framework, to develop an efficient spectrum policy and to facilitate the use of the EU's structural funds in pursuit of this agenda;
- On the national level, member states will need to e.g. promote the deployment and usage of modern accessible online services (incl. e-government, online health, smart home, digital skills and security).

[12] In relation to the digital society aspect, it is concluded that 'the global demand for information and communication technologies is a market worth € 2,000 billion, but only one quarter of this comes from European firms. Europe is also falling behind on high-speed internet, which affects its ability to innovate, including in rural areas, as well as on the on-line dissemination of knowledge and on-line distribution of goods and services'. (COM 2010: 11)

The described EU level once again stresses the importance of two main factors driving the digital agenda – an effective strategic framework on the one hand and sufficient financial means to motivate and mobilize actors on the other. On the national level, states are expected to facilitate the adoption of new ICT-based services and this effort, as claimed, is progressively moving towards levels beyond the state to sub- and supranational actors who are increasingly driving cross-border/regional cooperation.

This major milestone in fuelling digital cooperation in the BSR thereby underpins the role of the state as a 'gate keeper' between supra- and sub-national actors. In case of DAE, more specifically, the EU has prescribed the overall digital agenda to be pursued and provides the funds to realize it, whereas the member states promote this agenda to encourage practical responses on the sub-national level. This pattern, however, neglects the governance level between the EU and the member states which is in the focus of this thesis – it is the macro-regional level, which brings us back to the understanding that digitization processes are too complex and of lesser use for nation states to pursue separately. As such, the BSR has developed its own response to and accommodated the principles of DAE.

3.3. Stage III: A revised EUSBSR Action Plan

In the third phase, thus, it can be observed that the Europe 2020 Strategy along with its digital single market agenda received a regional response in the form of a revised EUSBSR Action Plan. As the Action Plan itself stresses, 'the EUSBSR needs to be placed firmly within the Europe 2020 agenda and current EU policy developments' (SEC 2009b: 39). Even more specifically (*ibid*.: 41):

> As front-runners in many areas of the digital economy, the region has much to gain from the 'Digital Agenda for Europe' flagship initiative of the Europe 2020 Strategy and the measures of Single Market Act to create growth and jobs in Europe. The region has the potential to achieve practical results by identifying and removing barriers to a growing digital economy /…/. Any attempts to unlock the growth and innovation potential of digital services and content must be supported and enabled by fast reliable communications networks which are the prerequisite for digitally driven growth.

Having specified the three overall objectives for the EUSBR – 'Save the Sea', 'Connect the Region' and 'Increase Prosperity' in a Communication from 2012[13], the revised Action Plan thus now explicitly states that 'to increase the prosperity of the BSR, the EUSBSR includes actions to promote entrepreneurship, innovation, trade and digitally driven growth' (*ibid*.: 37). Under the previously mentioned priority action 'Removing hindrances to the internal market', there is now an obvious commitment to the digital agenda – a sub-objective 'Interoperability of cross-border e-services within the Baltic Sea region' has been added with the respective target 'Active usage of cross-border e-services applications in all 8 BSR countries'. Under the sub-objective, a flagship project 'Cross-border e-services in the BSR' was announced. Thereby, the project stresses the 'need for bilateral discussion between neighboring Member States to select priority areas where cross-border services give the most value, based on their current socio-economic situation and ongoing relations between countries'. (*ibid*.: 106-108)

Three main points can be extracted from this:

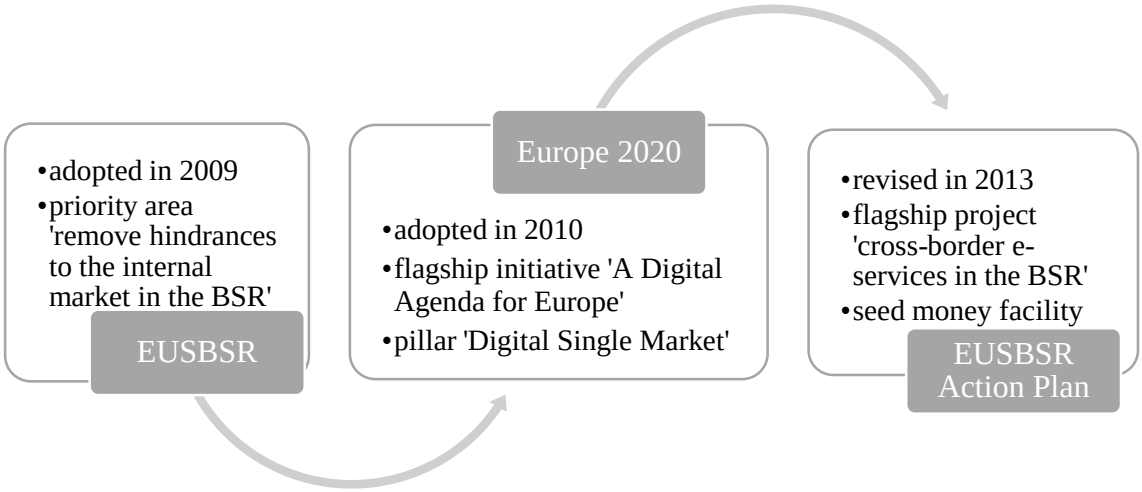
- The EU 2020 Strategy and the priorities it prescribes are central in increasing the competitiveness and growth of the BSR;
- The BSR should facilitate practical results in removing barriers to the regional single market and in diminishing the digital divide, thus serving as a role model on the EU level;
- Achieving this end-goal starts from bilateral discussions with neighboring countries and identifying common areas where deeper cooperation could be pursued. As a further step, thus, the emergence of wider networks covering more actors and BSR countries can be anticipated.

The revised Action Plan that now accommodates the EU-level digital agenda can thus be seen as a response mechanism – a way of reacting to the 'the pressures of economic globalization'[14] through local means. The regional response – promoting cross-border cooperation – thereby forms a governance arrangement that is relatively costless to enter and exit. However, the wider aim – the digital single market – suggests a gradual and

[13] Available at [http://ec.europa.eu/regional_policy/sources/docoffic/official/communic/baltic/com_baltic_2012_en.pdf].

[14] The need to develop a single market for maintaining the competitiveness of Europe in general.

voluntary integration. Whether or not this will lead to a new center of decision-making remains to be seen. All in all, the strategic dimension conditioning digital cooperation in the BSR can be summarized as follows:



Graph 7: Development of digital cooperation in the BSR on the strategic level
Source: Compiled by the author

3.4. Financial support for BSR digital cooperation

As the second dimension conditioning BSR digital cooperation, it is claimed that the governance networks have to a large extent developed because of financial incentives provided by EU instruments. This is very much in line with regionalism literature, whereby it was found that regionalism as a formal political program provides funds for informal regionalization processes to occur. In terms of governance literature, these resources can be said to promote 'creative contributions' of various governance levels to problems that states alone cannot manage. As such, the general pattern seems to be one where strategic aims are set on higher levels of governance and the lower levels of governance – most importantly sub-national and civil society actors – have the role of realizing these aims through their individual contributions. In case of the BSR specifically, three financial mechanisms can be outlined that greatly affect the development of digital cooperation networks in the BSR[15]:

[15] As also evidenced by two of the explored networks – BSR TaxI and Digital Baltic. The other networks have a different funding logic – both the NB8 and X-Road initiatives are state-supported and ToDE has a corporate sponsor in the example of Microsoft.

- **Interreg Baltic Sea Region** – a transnational cooperation program that funds initiatives with partners from the Baltic countries, the Nordic countries (Finland, Sweden, Denmark as well as Norway), Germany, Poland, Belarus and/or Russia. The program involves funding from two sources – the European Regional Development Fund (ERDF) for EU member state participation and the European Neighborhood and Partnership Instrument (ENPI) for Belarus and Russia. Norway has committed to covering its own costs. The general aim is to 'strengthen the development towards a sustainable, competitive and territorially integrated BSR by connecting potentials across borders'. (Inforegio 2011a)

- **Interreg Central Baltic** – a cross-border cooperation program that covers partners from Estonia, Latvia, Finland and Sweden. The program aims at 'creating a globally recognized, dynamic, sustainable and competitive region which is attractive for businesses and visitors and where people want to live, work and invest'. (Inforegio 2011b)
- **EUSBSR Seed Money Facility** – an EU funding program that helps to prepare projects that contribute to the priority areas or horizontal actions of the EUSBSR. During the project, partners who are successful in applying for the funding will draft a plan that can be further developed into a full proposal to any of the EU or national funding sources. (Seed Money Facility 2015)

CHAPTER 4

BSR digital cooperation today

Having explored the conditions for developing digital cooperation in the BSR, the final chapter aims to explore the BSR digital networks defined in section 2.2.2. For this, a set of questions (see Appendix 2) were discussed with the representatives of each of the networks. Broadly speaking, the questions can be categorized into four distinct topics that all contribute to a comprehensive understanding of BSR digital cooperation – the individual experience of the networks, the perceived interactions between various MLG networks, the BSR digital landscape in general and the commitment of the networks to DAE and EUSBSR as follows from the process-tracing. The aim was thereby to find observable patterns[16] across the five examples that would complement the central case study.

4.1. Network-specific insights

In relation to their motivations, three out of five networks explored demonstrate a clear commitment to the BSR when asked about **the reasons for establishing the network**. Namely, the networks developed – in one manner or another – in response to the understanding that the BSR is a digital leader in the EU and this role needs to be strengthened even further by harnessing the existing cooperation potential. This general commitment, however, has slightly different nuances in each case.

In case of Digital Baltic (interview D), the project is seen to proceed from the great potential that the BSR has in stimulating cooperation in the fields of open data and public sector information. Cooperation in these areas is perceived to have central importance in

[16] A summary of the observable patterns is presented at the end of section 4.4.

placing the BSR in the forefront of the digital single market. In this, the case demonstrates a clear commitment to the EU digital single market agenda through a macro-regional context. Similar in its point of departure is the cyber cooperation pursued under the NB8 (interview B), acknowledging that the (Nordic-Baltic) region is a digital leader in Europe and in relation to this, stronger and faster digital integration in the region should be pursued. In case of ToDE (interview A), the establishment of the network largely proceeds from the findings of a paper compiled by the BDF[17], recognizing the BSR as a digital hub which has great potential in demonstrating practical results on the EU level and having the role of inspiring others to further innovate and cooperate.

The logic behind the remaining two cases is somewhat different. As a non-profit organization, eGA (e-Governance Academy) has its main focus outside the region – many of their projects are instead targeted at increasing the governance-related competence of development countries in Central Asia and the Balkans. In this sense, the BSR TaxI project (interview E) is more of an exception with its BSR scope. However, the BSR is seen as a very good setting in which to advance cooperation as the region is very much intertwined and long-standing relations have already developed, making cooperation easier to flourish.

With its cross-border dimension still in the development phase, X-Road Europe (interview C) is the least connected to the BSR scope out of the networks explored and even if the platform takes on a wider dimension of cross-border cooperation, it will be focused on Europe in general and not the BSR in specific. However, it is seen that the BSR is of crucial importance to these growth plans. Namely, the priority is to strengthen cooperation with neighboring countries – especially the Nordics – with whom Estonia already has close business contacts. As a supporting argument, cross-border cooperation in the BSR is seen as a priority as more Estonian residents live in nearby countries and one of the aims of X-Road is to make communication between Estonian citizens abroad and national authorities more efficient and convenient. These benefits are now also being promoted to other countries in an effort to export the solution.

[17] 'Priorities towards a Digital Single Market in the Baltic Sea Region'. Available at [http://www.bdforum.org/cmsystem/wp-content/uploads/Priorities-towards-a-Digital-Single-Market-in-the-Baltic-Sea-Region_final_270313.pdf].

When asked about the **biggest success of the initiatives** so far, many feel that the creation and development of the network as well as the increase of trust between the network members that boosts further cooperation have been the biggest accomplishments. In these lines, Digital Baltic, BSR TaxI, ToDE as well as the cross-border dimension of X-Road and the digital dimension of the NB8 are confirmed to be just emerging with the network members getting to know each other's interests, needs and priorities and working towards defining common denominators which could lead to more tangible results.

More specifically, though, one of the landmark achievements of the NB8 (interview B) is a non-paper on advancing the digital single market in the region, presented at the Nordic-Baltic Prime Ministers' meeting in October 2014. Another success was the US and NB8 cyber round table in September 2014, which was seen to have a great added value in that good dialogue was strengthened with the US and the image of the region as a solid partner and digital leader was reinforced.

In case of Digital Baltic (interview D), the open space meetings that were organized as part of the project activities are seen to have greatest value. Based on the quadruple helix model, public participation of the local communities was promoted in order to explain the nature of open data and encourage citizens to get involved, express their needs and expectations. Bringing together IT experts and developers from the one side and local citizens – including pensioners and students – on the other, these meetings resulted in many locally relevant innovative ideas to be pursued in the future. As such, the Digital Baltic project prioritizes citizen engagement on the local level.

As an initiative that was launched very recently – in June 2014 –, the achievements of ToDE (interview A) have been reflected in its two publications[18], participation in many digital seminars and the newly set up website. Until now, branding has not been high on the think tank's agenda as establishing the network has been the concerted effort of just a few people. However, more attention will be paid to this from now on with the EU already expressing its interest. As the cross-border dimension of the X-Road platform (interview C) is also just emerging, the biggest successes so far are adopting the solution

[18] 'Coding the future – the challenge of meeting future e-skill demands in the Nordic-Baltic ICT hub' and 'Searching for the micro multinationals', available at [http://topofdigital.eu/publications/].

in Finland and helping to test it in Sweden and Norway with the aim of disseminating the model and simplifying the development of cross-border e-services.

In response to the question concerning the **main beneficiaries who gain from the work of the established networks**, all address through their specific scope and topics the needs of the citizens and businesses of the BSR. Digital Baltic (interview D), for instance, states explicitly that the aim of the project was to stimulate digital innovation in public sector information from the citizen perspective, exploring how this type of information influences citizens in the BSR and how it can be used along with modern ICTs to make the life of local citizens easier and practices more efficient.

The same commitment to end-users can be observed in case of both X-Road Europe (interview C) and BSR TaxI (interview E) as they proceed from the understanding that automated access to (tax) information greatly benefits citizens and businesses, reflected in the quality and efficiency of the services provided to them. Thereby, as people's mobility is ever-increasing and businesses strive for internationalization, cross-border cooperation in exchanging data is crucial in providing the means to do so. ToDE (interview A) acknowledges that their focus is mainly on the business sector – especially the competitiveness of the ICT industry and related start-ups – but also on improving the well-being of citizens in general. Given the close economic ties that exist between the countries of the region, the NB8 (interview B) finds that closer intergovernmental cooperation in digital matters also benefits the Nordic-Baltic citizens and businesses. Even though their role is mainly strategic, they promote the digital agenda on the highest levels and thus provide the framework for cooperation to 'function'.

An important indicator of the state of digital cooperation in the BSR is also the **sustainability of the established networks**. Here, it becomes obvious that the networks are still in their development phase, meaning that their sustainability in general might be questionable at this point of time, but their level of commitment to further steps can be distinguished more specifically.

Most notably, the two projects explored – Digital Baltic and BSR TaxI (interviews D&E) – stress that work up to now has been focused on preparing the grounds for more practical cooperation, including mapping partner interests and capabilities in detail and specifying the next steps. In evidence of this, both have submitted new 'full' project proposals under

Interreg for continuing with the project activities. In case of Digital Baltic, the aim of the introductory project was to map both partner interests and citizen needs in open space meetings so that a new project could be submitted under Interreg BSR. The rationale is to give the network a more practical value so not to stay on the level of analytical activities only, thereby using the results of the regional open space meetings – ideas, recommendations, discussions – gathered in a preliminary study to reinforce the network and find complementarities with the work of the BDF in implementing the key priorities towards a digital single market in the BSR.

In case of BSR TaxI (interview E), the full proposal has also been submitted under Interreg BSR, now involving even more partners for mutual synergies to develop. The 1-year introductory project was designed to map the current situation in the field of international information exchange between tax boards, to find good practices and new solutions and to prepare for a larger cooperation project that would have a longer timeframe and more stakeholders to cover more BSR countries than up to now. The aim of the main project will be more tangible – to renew the processes of tax boards and the international interaction between information systems so to provide companies and citizens with safer, yet faster and more efficient services, helping to reduce tax fraud and tax evasion in the BSR. This will be accompanied by adapting data exchange solutions in the participating tax boards so it would be possible to access various databases on a cross-border basis (e.g. by adopting the X-Road solution).

In case of the NB8 (interview B), the future of its cyber dimension is not that well pronounced. The priority appeared for the first time during Estonia's presidency in 2014 and the next chairman, Denmark, has turned attention to the more pressing issues of energy security and the Eastern Partnership, especially concerning the situation in Ukraine and Russian media propaganda. However, this does not mean that the digital agenda will be completely discarded from the NB8 priorities – though Denmark did not take over the priority, Finland has made an unofficial commitment to these matters by e.g. organizing a cyber round table, though the meetings might not be as high-level as in the previous year. It is concluded that digital matters will probably not become overly important in the NB8 priorities[19], but advancing cooperation in this area is nevertheless

[19] As even now, these matters are raised in between other topics rather than tackled separately.

seen as a good opportunity to address this globally crucial topic that is intertwined with the growth of virtually all other areas of cooperation.

In relation to X-Road (interview C), the aim is to further promote smooth cross-border data exchange and advance cross-border e-services. So far, the main efforts have been made towards Finland[20]. In essence, cooperation is discussed with any cross-border public agency that has close communication with the Estonian counterparts as exchanging data over the X-Road between these agencies would save substantial amounts of time and money. Also, there is a plan to establish a joint body with Finland to develop the X-Road and other e-governance information systems. The hope is that by the end of 2015, a concrete agreement will be reached for setting up this institute. As part of increasing its sustainability efforts, ToDE (interview A) is currently looking for both public and private actors that are interested in their focus areas to join the network as partners or sponsors.

4.2. MLG interactions

Overall, it seems in line with the observations of process-tracing that various levels of governance in the BSR digital landscape interact in the way that state actors (e.g. the ministries in the NB8 format) operate on a strategic level, promoting a suitable setting where cooperation could flourish, whereas civil society and sub-national actors (e.g. eGA and the local administrations in Digital Baltic) operate on a more practical, task-specifc level through e.g. cooperation projects. The general pattern thus confirms the theoretical assumption that states, despite losing their central importance, remain strategic gate keepers so that other governance levels would make their 'creative contributions' to the digital agenda and bring attention to areas where 'more state' is needed.

For example, the NB8 interview (B) revealed the standpoint that mutual relations between states have central importance in advancing the digital agenda as states form the supportive framework – most notably through legislation (in e.g. data protection and privacy). This gate keeper role is seen as something non-state actors cannot affect that much, but these levels are recognized as complementary – for instance, changes might be

[20] For instance, data exchange opportunities have been discussed with the Social Insurance Institution of Finland and the Finnish Population Register Centre.

initiated from bottom up if an innovative ICT business model was to emerge. Similarly, ToDE (interview A) has made a commitment to influencing the strategic agenda of the BSR by taking initiative and promoting cross-dialogue on the regional level. Thus, it is stressed that digital growth should not be driven top-down only in an effort to provide the suitable setting for new initiatives, but it is also crucial to promote growth from other levels so to instigate changes on the strategic level that further boosts mutual synergies. The states are there to support, but for cooperation to occur, political will is needed as well – and this is often fuelled by developments on other levels instead. It is therefore recognized that it is the various combinations of actors and states in networks that drive digital cooperation.

The pattern that states provide the means for cooperation and other MLG actors realize these opportunities, thus, is not always that explicit. In case of the BSR TaxI project (interview E), a civil society actor in the example of eGA is promoting cooperation between public agencies – tax boards. At the same time, tax boards cooperate with agencies responsible for state information systems in the respective countries and when necessary, the private sector (i.e. technology companies) are involved for developing technical solutions. In this case, a rather complex interaction of MLG has already developed.

Another interesting example of the blurred roles of MLG actors is the X-Road platform (interview C). If it is usually the case that the private sector provides the technology for public sector innovation (e.g. by developing e-service platforms), then in case of X-Road, the technology has been advanced by a public agency – the Estonian Information Systems Authority –, whereas several enterprises and civil society actors, most notably eGA, deal with disseminating and selling the X-Road idea to other countries. As such, the state does not sell the solution to other countries and it does not have the resources to provide guidance to all those interested in the platform, but other MLG actors help to promote the solution across borders by demonstrating its benefits in various cooperation contexts.

In case of Digital Baltic (interview D), the sub-national actors that are involved as project partners similarly advance the wider national and regional cause. Võru County Government, for example, sees itself as fulfilling a marketing role, driving the Estonian digital image by demonstrating innovative solutions on the sub-national level and raising

wider awareness. In line with the fact that the County Government is an extension of state power[21], it is perceived that the state should have the main role in driving the digital agenda by coordinating the respective regulations that foster growth. This, of course, complies with the key topics that the County Government along with the other partners pursue in the Digital Baltic project – public sector information as information that is directly generated by public institutions can mainly be tackled in a top-down approach. However, the project itself has included regional ICT clusters and research institutes as supporting partners so that the economic value of PSI would also be accounted for.

4.3. BSR digital landscape

In order to explain digital developments in the BSR, it was first of all explored **why the networks have a macro-regional scope and what is the perceived added value** from such cooperation. Four main justifications appeared – the networks have a BSR scope because (i) it is most beneficial to cooperate with the closest neighboring countries, (ii) the BSR consists of digitally advanced countries, (iii) the BSR already has a well-established cooperation landscape, and (iv) the BSR macro-region has motivating funding opportunities.

In case of X-Road Europe (interview C), it was stressed that although the initiative does not exclusively focus on the BSR, the macro-region is seen as an area of great potential for spreading the X-Road solution as cross-border cooperation is already very active and the countries are rather similar in terms of their (business) culture, aiming for simplicity and efficiency. As it makes sense to first advance cross-border data exchange with the closest neighbors that most likely have bigger communities of compatriots (e.g. Estonians in Finland) and thus benefit the many, it is a logical aim to try and implement the X-Road solution in the closest countries, increasing the willingness of other countries of the region to adopt it thereafter. As a validated model that supports European single market principles, X-Road could thus spread all over Europe.

The funding argument is evident in case of both Digital Baltic and BSR TaxI (interviews D&E). In case of Digital Baltic, for example, it is stressed that the BSR setting provides

[21] The Government of Estonia appoints the County Governors.

a motivating financial framework through project funds (see also section 3.4), which ensures that issues important on the EU and regional level are addressed on lower levels of governance. As a signal that digital topics are high on the regional agenda, thus, the funding offered for tackling the respective challenges ensures that new initiatives are established in this field. eGA adds that the BSR TaxI project had a regional focus for very pragmatic reasons that proceed from the topic addressed – Estonia gains the most from advancing cooperation in its region so that e.g. the Estonian Tax and Customs Board would have better collaboration with those countries with whom information is exchanged the most. Of course, requesting information directly from databases (e.g. based on the X-Road solution) would benefit the whole Europe, but this presumes a long process of changing the current patterns of thought and action. The BSR as a technologically advanced and innovative region, in this sense, is a good testbed for piloting these solutions and demonstrating the benefits to the wider EU community.

In case of ToDE (interview A), the leading position of the BSR in the digital field is also emphasized as a reason for launching a digital think-tank specifically with a BSR focus. Hereby, a degree of path dependency clearly has to be taken into account – as already mentioned, ToDE to a great extent grew out of the wider activities of the BDF, which has operated as a networking organization in the BSR for almost 17 years. Last but not least, the NB8 format (interview B) can be argued to not have a BSR focus in the first place, excluding Germany and Poland from its scope and covering Iceland and Norway instead. However, a new cooperation format under the NB8 is also beginning to emerge – the NB6+2, which includes all the six Nordic-Baltic countries that belong to the EU as well as Poland and Germany to 'complete the region'. This format is currently on the level of political consultations only and does not have regular meetings nor a clear agenda, so it makes sense to talk of the cyber agenda under the NB8 framework for now.

The second topic discussed under this section concerns the **key topics that should be promoted under the BSR digital cooperation agenda**. Here, the networks demonstrate a commitment to a wide range of issues crucial to advancing the digital agenda, most of which have already been described based on network-specific insights. As a general pattern, however, the main focus seems to be on working towards seamless systems for cross-border data exchange between the BSR countries.

For example, the NB8 (interview B) prioritizes cross-border data exchange between NB8 administrations. It is stressed that the respective technology does not need to be reinvented – Estonia has been using the X-Road solution domestically for more than 15 years. In line with this, a future step might be to set up an NB8 regional data exchange layer that would link together relevant national digital architecture or data exchange platforms. The central importance of the X-Road solution is also emphasized in other cases. Digital Baltic (interview D), for example, sees the potential of X-Road in building a platform for local communities. As the residents of rural areas are typically more isolated, this digital solution could solve the problem by automating and concentrating relevant information and advancing means of citizen engagement (e.g. participatory budgeting). Similarly, eGA (interview E) sees that their project experience enables them – in combination with X-Road – to pursue cooperation in many other areas where cross-border e-services would simplify the work of agencies and benefit the citizens[22].

One of the central topics discussed, however, concerned the **barriers of BSR digital cooperation** that the networks were asked to explain based on their experience. In general, four main sets of barriers appear – technological, legislative, social and financial barriers. The technological dimension is thereby related to both the 'digital divide' between the countries of the BSR in general as well as the separately developed digital systems and platforms in specific. The legislative dimension is mainly about differences in the data protection and privacy laws of the countries and the complexity of changing them. The social aspect is related to the unwillingness perceived by many actors to introduce fundamental changes to outdated (governing) practices. It is also felt that the financial framework for regional projects might not sufficiently motivate intensified digital cooperation.

In the case of Digital Baltic (interview D), the main obstacle lied in differences between the project partners. Discrepancies in the levels of digital development were perceived so strongly as to even say that practical cooperation was difficult to drive. It is felt to be the case that all partner countries have great digital examples in the private sector, but the

[22] E.g. cross-border requests from population registries, e-health (incl. health records, medicine prescriptions and health insurance information), social security, commercial registries, e-police (incl. traffic violations, information about licenses and traffic insurance), education information (diplomas, certificates) etc.

capacity of adopting these solutions in the public sector and translating them into benefits in e.g. e-governance is limited. Once again, Estonia is pointed out as an exception as digital technologies have also been very actively developed on the national level, which has worked well as an innovation model. In these lines, Võru County Government perceived its role in the project as explaining the Estonian experience to its partners[23]. Even if Võru did not have the chance to take its practices to a new level, however, it is strongly believed that experience sharing and knowledge transfer through networks is crucial in diminishing the digital divide and thus enabling more practical cooperation.

In the lines of social factors, the X-Road experience (interview C) has shown that the main obstacle for intensified regional cooperation in digital areas is the cultural and technological conservativeness of both the public and private sector, including the unwillingness or incapability to give up on or drastically modify existing information systems that have already been extensively invested in. This is believed to be the case even if major shortcomings are experienced and admitted and even if better solutions are available. Because of this, it is difficult to bring all stakeholders together to explain the benefits of e.g. a mutually operating data exchange platform. Thus, the greatest obstacle is perceived to be the existing organizational and technological legacy which prevents actors from making changes in their current patterns of thought and behavior. Similarly, the Digital Baltic (interview D) project recognizes that in most of the cases, relevant actors are 'hiding behind' the claim that digital systems are unreliable, whereas it just takes a lot of time and resources to make changes. In these lines, it is important to overcome the overall lack of trust for digital services and a resistance to open up data through step-by-step action.

The NB8 (interview B) also emphasizes technological barriers. As a simple example, it is pointed out that currently, all Nordic-Baltic countries besides Estonia and Finland[24] are developing their own digital signature solutions, at the same time duplicating efforts as well as resources and making things more complicated for the end-users. Thus, the technological barriers are even now being amplified despite realizing the digital single

[23] The other partners were interested in continuing this kind of knowledge sharing even further – the Lithuanian partner will even submit a separate proposal for exchanging experiences between the same partners.

[24] Who are together moving towards the .bdoc format in digital signing.

market as a common goal. The single market obviously has more potential if systems are compatible, thus it is seen as unfortunate that other countries have not been interested in adopting e.g. the X-Road system. ToDE (interview A) refers to the current situation as 'national protectionism', whereby everyone seeks to develop their own innovative solutions, but thereby fail to look across borders.

Leading the BSR TaxI project, eGA (interview E) experienced legislative barriers first-hand. Namely, the aim of the follow-up 'main' project is to add new partners to the tax-related network, but instead, it turned out that the Swedish partner who participated in the preparatory project has to withdraw from further activities. The reason for this lies in the national data protection laws that do not enable other countries to make inquiries in Swedish national databases through a system to the likes of the X-Road. Thus, in this case, the biggest obstacle is not as much related to the technical side, but about introducing time-consuming legal changes[25].

eGA adds another dimension to the already mentioned barriers. Namely, it is felt in relation to structural funds that resources tend to concentrate in the hands of public agencies, thus hindering the emergence and effective cooperation of networks on other governance levels. For instance, a new measure that is concerned with raising awareness on information society prioritizes public e-services and service infrastructures, but no attention is paid to the bottom-up citizen aspect and educating citizens about the opportunities of e-democracy – eGA thus feels that there should be more balance between developing e-services and e-participation.

Continuing with the financial dimension, eGA agrees that BSR digital cooperation is to a great extent influenced by the (financing) priorities of the EU and the specific topics that are currently favored in the respective regional cooperation programs. eGA points to the fact that if in the previous EU financing period (2007-2013), the topic of information society (incl. e-governance and e-participation) was defined as a separate topic in several cooperation programs, then during this period (2014-2020), digital cooperation is seen as a horizontal topic. In other words, in all conceivable areas, it is expected that projects use

[25] This is seen more problematic than e.g. developing interactions between databases, although these have also been set up independently from each other with no attention to how interoperability could be achieved.

the opportunities of information society so to improve cooperation. At the same time, there is no topic specifically for advancing information society, so it is hard to find financing for these networks and projects that want to address digital topics in detail and do not have their main focus in other cooperation areas. This way, digital cooperation might remain under-developed.

So what, in general, should be done to **boost digital cooperation in the BSR**? Most of the interviewees believe that the answer lies in disseminating practical examples and success stories that incentivize the efforts to cooperate, change and harmonize. For instance, the NB8 (interview B) claims that the BSR could boost digital cooperation by demonstrating specific solutions that have already been proved successful. As a result, political will and trust – both crucial for advancing the regional cause – could be increased. ToDE (interview A) shares this standpoint and adds that if examples relevant to the whole region can be demonstrated, the key stakeholders will realize the benefits of joint solutions. Up to now, there have been many good initiatives here and there, but nothing substantial has been achieved together.

Digital Baltic (interview D) believes that although practical cooperation is not always possible to begin with, this is not the only goal – building networks, sharing experience and increasing trust between its members is a time-consuming, but crucial step in advancing cooperation. This is exactly what is perceived to be happening in the BSR – the region is in the phase of creating networks in an attempt to find partners with whom to advance the digital cause. In order to boost these processes and speed up innovation, the benefits of cross-border digital solutions should be demonstrated so to outweigh the involved effort. In bringing more attention to the regional level, academic research is also seen as having an important role (interview B) – there are already plenty of speculations and prognoses, but not enough academic attention to digital matters that would strengthen cooperation arguments. As such, the pool of relevant research should be extended in order to keep convincing other countries to adopt joint digital solutions.

Digital Baltic (interview D) also stresses the importance of empowering citizens. Involving citizens in the innovation process will, first and foremost, offer them the possibility to express their needs and ideas and influence the products and services that they are most affected by. As such, the innovation process should be given a more bottom-

up perspective to counterweight the top-down perspective and thereby democratize the innovation processes. Therefore, it is important to bring together all stakeholders and enable knowledge and information flows to boost creativity. The same was perceived in case of BSR TaxI (interview E), stating that in order for real progress to occur, it is not enough to develop bi- or trilateral relations – the aim should be to involve all relevant stakeholders in generating and implementing ideas so to avoid duplication and lock-ins.

4.4. Relation to EUSBSR and DAE

Finally, the experts were asked to comment on the extent to which the priorities of the EUSBSR and DAE are perceived to be relevant to the networks. In line with the results of process-tracing, both strategies were indeed seen as crucial to the development of the networks with some deviations depending on the main focus of the network[26].

The NB8 (interview B) sees direct links between digital integration and its cyber priority, aiming to complement wider digital single market progress in the EU. The two main areas that the NB8 sees as paramount in contributing to the agenda is the creation of an environment that boosts innovation and the development of cross-border digital services both on the private and public level. In relation to the EUSBSR, it is felt that there are topics that collide with the NB8 priorities and the aim is to move towards avoiding duplication. At the same time, the EUSBSR is rather perceived as a separate institution with its specific initiatives and projects and not so as a strategic framework, making identifying with the EUSBSR more difficult for the NB8.

The Digital Baltic (interview D) project makes a direct commitment to both the digital agenda as well as the EUSBSR. Firstly, it is emphasized that DAE is crucial for the development of a digital BSR society and thus needs to be the first priority for regional cooperation projects. Secondly, the project directly contributes to the EUSBSR on several levels, especially related to removing hindrances to the internal market in the BSR and to developing a common BSR strategy to promote services innovation. In its project, the

[26] E.g. eGA also prioritized a Council Directive on administrative cooperation and Digital Baltic also prioritized a Council Directive on the re-use of public sector information.

Digital Baltic has also set as its goal to increase knowledge about DAE and digitization in the BSR.

In case of BSR TaxI (interview E), the project is perceived to be very closely related to and even fuelled by EU digital single market topics and the EUSBSR. Most of all, the project is seen to be fully in line with the action of DAE that supports seamless cross-border e-government services in the single market. In addition, the project contributes to the EUSBSR in establishing the region as a frontrunner in deepening and fulfilling the single market. After all, the Action Plan specifically refers to the need for international tax cooperation and reinforcing efforts to combat cross-border tax fraud and evasion[27].

In case of X-Road (interview C), it is stressed that RIA as a public agency receives its policy guidelines from the Estonian Ministry of Economic Affairs and Communications. On the higher level, however, a link is perceived with the EU information society objectives (mainly related to eID) through the Estonian Information Society Strategy[28] that proceeds from similar principles. The EUSBSR is not directly perceived to relate to the work RIA does in developing X-Road. On the contrary, ToDE (interview A) is in good dialogue with those responsible for the digital dimension of the EUSBSR and aims to link its activities in the future. In relation to DAE, ToDE recognizes its links, but rather seeks to inspire the EU level through good practices on the regional level, not to duplicate the agenda.

[27] The proposal for the project itself was submitted under the priority area on removing hindrances to the internal market, where it is closely linked to the flagship project 'cross-border e-services in the BSR'.
[28] Available in Estonian at [http://infoyhiskond.eesti.ee/files/Infoyhiskonna_arengukava_2020_f.pdf].

All in all, the keywords (observable patterns) that came up in discussing the four main topics can be summarized as follows:

TOPIC	KEYWORDS
Reason of establishment	• Harnessing the potential of macro-regional cooperation • Strengthening the image of the BSR as a digital frontrunner • Facilitating stronger and faster digital integration in the EU
Biggest success	• Creating and developing the network and paving the way for further cooperation • Increasing trust between network members and finding common ground • Learning about each other's digital priorities, objectives, needs, shortcomings etc. • Exchanging experience and best practices
Main beneficiaries	• End-users, i.e. the citizens and businesses around the BSR • Focus on increasing service quality and ease of use • Supporting citizen mobility and business internationalization
Sustainability	• Fluid and task-specific nature, future mostly unknown • Commitment to continuing cooperation evidenced by new projects and negotiations • Aim towards more practical cooperation and durability of results
MLG interactions	• States facilitate cooperation through a strategic framework • Non-state networks point to areas that need more (strategic) attention • Sub-national governance networks are task-specific and need-based, aiming towards practical results • Macro-regional networks promote overall dialogue on the digital agenda • All make their individual contributions to the shared end-goal of a regional digital single market
Macro-regional added value	• Already existing cooperation tradition in the BSR, similar (business) culture • Benefits of cooperating with immediate neighbors fuels wider networks • The BSR countries are already digitally advanced • The region is a good test bed for innovative cross-border solutions • The BSR has motivating funding opportunities that shape the development of cooperation (projects)
Key topics	• Seamless cross-border data exchange through interoperable platforms • Focus on open data, public sector information and citizen participation

Biggest barrier	• Technical aspects incl. the overall digital divide (i.e. differences in the level of digitization) and the non-interoperability of separately developed digital platforms (i.e. technical path dependence) • Legislative aspects incl. national differences in data protection and privacy laws and the complexity of amendments • Social aspects incl. organizational legacy (i.e. unwillingness to undertake resource-intensive changes), national protectionism (i.e. sharing innovation) and cultural conservativeness (i.e. low capacity to innovate and adopt new solutions) • Financial aspects incl. the absence of funding instruments specifically meant for advancing digital cooperation, the instability of funding priorities and the concentration of funding in public sector agencies
Ways of boosting BSR digital cooperation	• Facilitating new networks and finding mutual synergies for decreasing the digital divide • Mobilizing all relevant actors and governance levels in collective actions towards the end-goal • Avoiding the duplication of efforts and moving towards interoperable systems • Disseminating practical examples and success stories for boosting further cooperation • Encouraging academic research to argue for the benefits of macro-regional cooperation
Relation to EUSBSR and DAE	• Closely related to the priorities of the networks or even fuelling the activities of the networks • Crucial to digital growth in the BSR • Related is the desire to reinforce the BSR as a role model (i.e. the frontrunner of the digital agenda) on the EU level

Table 6: Expert interview keywords
Source: Compiled by the author

4.5. Analysis: networked governance in BSR digital cooperation

The last sub-chapter has the main aim of bringing together the set of theoretical assumptions developed in section 1.4 with the results of process-tracing and expert interviewing. This is accompanied with practical recommendations for further advancing the BSR digital cause.

4.5.1. Validity of theoretical assumptions

In order to test the theoretical assumptions of BSR digital cooperation, two methodological phases were completed – process-tracing the development of BSR digital cooperation and accounting for present-day BSR digital cooperation through identifying and categorizing the relevant governance networks along with their interconnections.

Based on these results, the revised and improved characteristics of BSR digital cooperation are the following.

In pursuing digital cooperation on the regional level, aspects regarding geographical proximity are downplayed compared to the benefits of treating the region as a political project. The interviews revealed that in general, the BSR is perceived as both a political as well as a geographical entity. For example, several interviewees stated that the geographical proximity of neighboring countries is one of the main reasons why the network has developed. On the other hand, the BSR was also perceived as a macro-regionalism project, in which case it was mainly associated with the EUSBSR as a leading regional initiative setting the pace of cooperation. In this sense, the BSR was seen as an active subject collectively pursuing its needs, i.e. to reinforce the image of the region as a digital frontrunner and as a role model for shaping the digital single market. The results of process-tracing also support the image of the BSR as a political project. Namely, the EUSBSR has taken the role of empowering the BSR as a regionalism project that strives for better integration, which is mainly related to keeping up competitiveness in the rather small countries of the region.

An increasing number of digital cooperation networks on all levels of governance are observable in the region with the main aim of developing mutual relations and sharing experience. From the interviews, it indeed follows that digital cooperation in the BSR is characterized by a complex interplay of actors from various levels of governance – in this case the macro-regional, intergovernmental, national, civil society and sub-national levels. As digitization in general is a set of complex processes that need to be tackled through polycentric governing arrangements as the state alone cannot take responsibility, networks have emerged on each of these levels and are currently in the phase of learning and developing relations, paving the way for more practical cooperation. This, in turn, is in line with the results of process-tracing, stressing that the BSR should demonstrate effective digital cooperation through mutual projects, while creating no new (institutional) structures for tackling internal market issues.

The observable digital cooperation networks are flexible, task-specific and need-based, while contributing to a mutually perceived common good. As discussed in the interviews, each of the governance networks have their own interests, needs and specific agendas,

but all make their 'creative contribution' to a shared end goal – the digital single market – thus enabling to treat them as various perspectives of BSR digital cooperation. Process-tracing similarly revealed that BSR digital cooperation should develop on voluntary and need-based grounds, whereas the task-specific networks often emerge closely in line with the funding priorities of the time. The networks are thereby fluid in essence, especially when growing out of cooperation projects – as evidenced by the honorable mentions of other networks, several networks have dissolved after achieving their project objectives and discontinued as a network. The networks interviewed, on the other hand, expressed clear commitment and further plans to ensure the sustainability and durability of their activities.

The governance system of digital cooperation is fragmented with no clear-cut interconnections and no central actors or decision-making. The just emerging nature of BSR digital cooperation is for example evidenced by the results of process-tracing, revealing that it is advised on the regional level to start bilateral discussions between neighboring countries that could lead to wider initiatives and gradual integration. The interviews also confirm that the digital governance system is still very fragmented and synergies have yet to develop, making the objective of laying down the patterns of interaction in detail complex. The general pattern is one where states provide a suitable setting for cooperation to occur and other levels contribute to realizing the priorities of the digital agenda through task-specific networks and projects. It can be however seen that this general pattern has several exceptions – eGA as a civil society player is boosting digital literacy in the public sector, RIA as a public agency has devised the core technological solution of Estonia's e-governance, Digital Baltic as a project between sub-national players contributes to public sector innovation through a bottom-up approach etc. Thus, it can be seen that various interactions and cross-dialogue between governance levels are developing.

The role of states is to facilitate cooperation and act as a cooperation partner, diffusing power to both supra- as well as sub-national actors in a process of decentralization. In general, the interviews indeed reveal that states do not dominate digital cooperation, but are increasingly dependent on how effectively cooperation is driven with other governance levels. The results of process-tracing also reinforce the responsibility of states in *promoting* the deployment and usage of modern accessible online services, not

dominating the agenda. However, a strong notion of the central importance of states in pursuing the digital agenda still persists. Many feel that ultimately, the states are the one that should 'lead the way'. In many cases, criticism is also targeted at states, including their incapability of driving digital innovation in the public sector and their unwillingness to adopt solutions developed by the private actors. This feature of BSR digital cooperation thus might have to be rephrased as 'the role of states *should be* to facilitate cooperation…' – currently, it seems that several actors feel that the role of states as 'gate keepers' and facilitators of digital cooperation has been insufficient.

Digital cooperation in the region is mainly focused on exchanging information with the help of using modern ICTs and overcoming the related cross-border barriers. The results of the interviews confirm that digital cooperation in the BSR as expressed by the emerging cooperation networks is driven by the understanding of what ICTs have enabled (e.g. the X-Road platform is perceived to have central importance) and what needs to be achieved (i.e. a common goal of shaping a digital single market in the EU). Thereby, digital cooperation in the BSR has virtually become synonymous with mutually exchanging information via digital means, evidenced by the objectives of the explored networks in exchanging e.g. administrative and public sector information. The results of process-tracing support this as cross-border e-services are prioritized in the framework of the EUSBSR even on a formative level.

In general, the theoretical assumptions were rather accurate in predicting the essence of BSR digital cooperation. Two features turned out to be somewhat arguable. Firstly, geography is still very much emphasized in the digital agenda of the BSR despite the understanding that digitization should diminish the importance of state borders. This can be explained by the overall effort of BSR countries to introduce cross-border e-services initially with neighbors as a step towards region-wide initiatives and deeper digital integration where borders, in this sense, would indeed no longer matter. Right now, the cooperation networks fuelling these developments were found to be in their early development stage, meaning that borders and the related barriers are still very much present. It can thus be said that geographical proximity has been an inseparable part of the development of the Baltic Sea macro-region in the first place, but the region is increasingly taking on a political function, articulating and pursuing the common interests of its members as evidenced by its digital agenda.

The second arguable feature is related to the role of states in fuelling digital cooperation. Overall, it seems that in many countries around the BSR, success stories and best practices have emerged on non-state levels of governance, but the ability of states to adopt smart solutions or translate innovative ideas into new ICT-based opportunities for their citizens and businesses has remained modest. As such, other levels of governance sense that the coordination and facilitation of digital cooperation by states is insufficient, leaving the full potential of multi-level cooperation in the BSR unused. This, in turn, is related to the wider 'lesson' of the complexity of digitization – although technology enables digital growth, it is ultimately the social networks that decide 'what to make of it'.

Overall, then, the kind of cooperation we are currently witnessing in the digital agenda of the BSR has developed in response to global digitization pressures that have facilitated two fundamental changes. Firstly, on the inter-state level, digitization is increasingly tackled macro-regionally as a defense mechanism for keeping up the competitiveness of the region and realizing the benefits of economies of scale in the otherwise small markets. The macro-regional image and cooperation incentives are thereby strengthened by the wider EU governance model, including its strategic guidelines and funding instruments. Secondly, on the intra-state level, digitization as a complex policy problem boosts decentralization processes, which in turn stimulate bottom-up initiative and local responsiveness. Thus, polycentric governance arrangements emerge whereby sub-national actors develop practical responses to strategic goals while pointing to areas where top-down action is needed.

Combining the inter-state and intra-state dimension, it can be said that a multi-level governance model that does not necessitate additional institutional structures is also emerging on the regional level, enabled by cross-border cooperation networks that collectively 'engineer' the BSR information society towards diminishing the barriers that state borders impose on digital growth. The greatest barriers, however, are not digital in essence – it is the lack of mutual trust and knowledge-sharing, unwillingness to undertake resource-intensive changes and low capacity to innovate that hinders effective and practical digital cooperation the most. The path to a digital single market is thus long and time-consuming, but the regional governance networks with their 'creative contributions' are clearly moving in the right direction.

4.5.2. Recommendations for advancing the BSR digital cause

In combination of the theoretical observations and the lessons learned from the individual experience of the explored networks, the following practical recommendations could be proposed on various governance levels:

- **EU level** – Develop (regional) funding instruments that tackle digital cooperation separately and specifically, not as a horizontal principle that prescribes the use of modern ICTs in all cooperation projects. Though digital cooperation enables growth in virtually all other areas, it has a distinct set of topics, objectives and barriers and thus cannot be properly advanced through cooperation projects that have their emphasis elsewhere (e.g. R&D, environment and labor issues).
- **BSR level** – Facilitate further cross-dialogue and find synergies between various existing and emerging initiatives and develop cooperation models to be disseminated on the EU level. Currently, the governance system of BSR digital cooperation is still very much fragmented, but sectorial synergies need to be developed early on in order to avoid lock-ins and duplicating efforts. Also, digital topics should be further promoted in regional funding programs.
- **National level** – Further incentivize and mobilize various actors to address digital issues through their specific contributions by expressing willingness to adopt new solutions and cooperate in e.g. innovating public sector practices. This is related to reinforcing the image of states as 'gate keepers', thereby shaping a favorable setting where digital cooperation could flourish, including reviewing legislation when necessary.
- **Sub-national level** – Advocate specific digital topics and disseminate practical examples to bring more strategic attention to digital cooperation as well as point out areas where state action is needed for further intensifying cooperation. Wherever possible, business models that boost changes on the higher levels should be developed. Also, more academic research that argues for the benefits of tackling digital matters macro-regionally should be promoted.

CONCLUSION

This thesis set out to shape a wider understanding of the governing logic of BSR digital cooperation. A claim was made that global digitization pressures have received a macro-regional response in the form of emerging cooperation networks on various levels of governance – from supra- to sub-national levels –, whereby each network offers their individual 'creative contribution' to a commonly perceived end-goal – developing a digital single market both in the BSR in specific as well as the EU in general.

Combining the seemingly distant concept of regionalism, digitization and multi-level governance, a set of theoretical assumptions about the essence of BSR digital cooperation was proposed and the task of revising the theoretical premises according to real-life evidence was undertaken. For this, a two-step methodology was introduced. A retrospective view on the development of BSR digital cooperation was taken in process-tracing the necessary conditions that fuelled the emergence of digital cooperation networks in the region. This short visit to the past was complemented by exploring the contemporary dynamics of BSR digital cooperation. Through mapping and expert interviewing, relevant governance networks were identified, categorized and studied in terms of their individual experience and mutual interconnections.

In response to the first research question, it was found that digital cooperation in the BSR was conditioned by a combination of strategic and operational factors, whereas both are deeply interrelated with the pre-institutional setting of the BSR and its embeddedness in wider EU governance. The strategic level was mainly evidenced by changes observed in the overarching EU Strategy for the Baltic Sea Region according to the digital principles set out in the Digital Agenda of the Europe 2020 Strategy. Having acquired a clear digital dimension in its revised Action Plan, the EUSBSR now emphasizes the importance of the BSR as a frontrunner in ICTs to facilitate practical results in removing barriers to the regional single market and thus serve as a role model on the EU level. The presence of

EUSBSR and DAE objectives in regional cooperation networks was also confirmed in the interviews. The operational level complements the strategic one by offering financial incentives for various initiatives to realize the regional digital priorities through cross-border cooperation targeted at practical results. Here, the main enabling instruments were found to be Interreg BSR, Interreg Central Baltic and the EUSBSR Seed Money Facility. A conclusion was thus reached that digital cooperation networks in the BSR have most likely emerged as a response to strategic goals and financial incentives.

The second research question sought to confirm that the kind of digital cooperation we are currently witnessing in the BSR is indeed characterized by an emerging networked multi-level governance model. Through a mapping process, several digital cooperation networks that – in one way or another – contribute to bringing down digital barriers in the region were identified. These networks were categorized on five levels of governance – the macro-regional, intergovernmental, national, sub-national and civil society level – serving as various perspectives of the central case study of BSR digital cooperation. As such, it was proved that, although just in its development phase, a governance model whereby the regional information society is collectively constructed by governance networks on various levels beyond the state can be observed.

The third research question aimed at characterizing this emerging networked governance model in detail by going back to the initial theoretical assumptions. For revising the assumptions, input was mainly gathered from process-tracing and expert interviewing the representatives of the networks. All in all, it was found that:

- In pursuing digital cooperation on the regional level, aspects regarding both geographical proximity as well as the political nature of the BSR regionalism project are emphasized;
- An increasing number of digital cooperation networks on all levels of governance are observable in the region with the main aim of developing mutual relations and sharing experience, after which more practical cooperation could be pursued;
- The observable digital cooperation networks are flexible, task-specific and need-based, while contributing to a mutually perceived common good of establishing a regional digital single market;

- The governance system of digital cooperation is very much fragmented with no clear-cut interconnections and no central actors or decision-making, whereas the ultimate aim is to move towards gradual integration;
- The role of states, which are currently perceived to be somewhat underperforming, should be to facilitate cooperation and act as a cooperation partner, diffusing power to both supra- as well as sub-national actors in a process of decentralization;
- Digital cooperation in the region is mainly focused on exchanging information with the help of using modern ICTs (like the X-Road solution) and overcoming the related cross-border barriers, which concern technical, legislative, social and financial aspects.

As the BSR is the EU's first macro-regional project, these insights into an emerging networked MLG model embedded in wider EU governance serve as real-life evidence of where policy-making and implementing practices might be heading in the EU, i.e. pursuing gradual integration through macro-regional cooperation. Besides exploring the BSR digital cooperation case in more detail[29], thus, further research could also focus on the other, more recently formalized EU macro-regions – the Danube Region, the Adriatic Ionian Region as well as the Alpine Region – and the form digitization takes there[30]. Just like the current BSR digital cooperation was found to be about learning from each other's experience, the aim could thus be to transfer knowledge between macro-regions, especially as the ultimate goal – shaping a single digital market in the EU – should be mutually acknowledged.

[29] E.g. studying specific governance levels – BSR sub-national digital cooperation, BSR intergovernmental digital cooperation etc. – or the key topics that are tackled macro-regionally – public sector information, open data, e-government solutions, cross-border e-services etc. Other topics that deserve special attention include the potential of the X-Road platform for enabling smooth data exchange in the BSR, the role of public participation and citizen engagement in boosting regional digital innovation, the possibility of piloting mutually acknowledged digital signatures in the BSR, ways of moving from central e-government solutions to e-governance solutions etc.

[30] For instance, the conditions that produced digital cooperation in the BSR might not be filled in case of other macro-regions, especially in what concerns a pre-institutionalized setting and highly digitized member countries. On the other hand, these regions too are embedded in wider EU governance, so it would be interesting to explore the outcome of digitization pressures and strategic EU digital objectives in this case, especially the extent to which the digital single market is perceived as a common goal.

KOKKUVÕTE: LÄÄNEMERE REGIOONI DIGIKOOSTÖÖ

Selle magistritöö eesmärgiks on kujundada laiem pilt Läänemere regiooni digikoostöö toimimisloogikast. Töö lähtub arusaamast, et ülemaailmne digitaliseerumissurve on Läänemere ümber saanud makro-regionaalse vastuse. Nimelt on erinevatel valitsemistasanditel – riigiülesest kohaliku tasandini – ilmnemas koostöövõrgustikud, mis panustavad ühisesse lõppeesmärki – arendada nii Läänemere regioonis kui Euroopa Liidus üldiselt välja digitaalne siseturg. Selle areneva mitmetasandilise valitsemismudeli uurimiseks Läänemere regiooni digikoostöös seab töö kolm uurimisküsimust:

- Kuidas on digikoostöö Läänemere regiooni kontekstis välja arenenud?
- Kuidas väljendub mitmetasandiline valitsemine Läänemere regiooni tänapäevases digikoostöös?
- Milline on Läänemere regiooni digikoostöö vorm tänasel päeval?

Uurimistöö teoreetiline osa ühendab digikoostöö kolm kontseptuaalset põhikomponenti – regionalism, digitaliseerimine ja mitmetasandiline valitsemine – ning pakub välja rea oletusi Läänemere regiooni digikoostöö vormi kohta. Nende teoreetiliste oletuste parandamiseks ja täiendamiseks elulise tõendusmaterjali põhjal kasutatakse kaheetapilist metodoloogiat. Esmalt uuritakse Läänemere regiooni digikoostöö arengut tagasivaatavalt, rakendades protsessi jälgimise meetodit nende tingimuste tuvastamiseks, mis võimaldasid ja soodustasid regioonis digitaalsete koostöövõrgustike teket. Teisalt uuritakse minevikusündmuste kõrval ka Läänemere regiooni digikoostöö tänapäevast toimimist. Selleks kaardistatakse erinevatel valitsemistasanditel tekkinud olulisemad koostöövõrgustikud ning kasutatakse ekspertarvamusi, et hinnata võrgustike kogemust, omavahelisi seoseid ning panust Läänemere regiooni digikoostöö kujundamisse.

Esimese uurimisküsimuse vastusena võib öelda, et Läänemere regiooni digikoostöö kujunemise eeldusteks olid nii strateegilised kui operatiivsed tegurid, kusjuures mõlemad

on tihedalt seotud Läänemere regiooni institutsionaliseerunud keskkonna ning paiknemisega laiemas Euroopa Liidu valitsemissüsteemis. Strateegiline pool avaldub peamiselt Läänemere regiooni strateegia muudatustes vastavalt Euroopa 2020 strateegia digitaalse tegevuskava põhimõtetele. Läänemere regiooni strateegia on oma täiendatud tööplaanis omandanud seega selge digitaalse mõõte, kus rõhutatakse Läänemere regiooni rolli IKT liidrina ning seatakse eesmärgiks praktiliste tulemuste soodustamise regionaalse digitaalse siseturu barjääridest ülesaamisel ning eeskuju näitamisel kogu Euroopa Liidus. Strateegilist poolt täiendab seejuures operatiivne pool, mis seisneb erinevatele algatustele rahaliste stiimulite pakkumises regionaalsete digieesmärkide elluviimiseks läbi praktilistele tulemustele suunatud piiriülese koostöö. Siinkohal on peamisteks soodustavateks instrumentideks Interreg Läänemere regiooni programm, Interreg Kesk-Läänemere programm ning Läänemere regiooni strateegia seemnerahastu programm. Seega võib öelda, et digitaalsed koostöövõrgustikud arenevad Läänemere regioonis peamiselt strateegiliste eesmärkide ja rahaliste stiimulite koosmõjul.

Teise uurimisküsimuse eesmärgiks on tõestada, et seda digikoostöö vormi, mida võib hetkel Läänemere regioonis täheldada, iseloomustab tõepoolest väljakujunev mitmetasandilise valitsemise mudel. Kaardistamise käigus tuvastati mitmeid digikoostöö võrgustikke, mis ühel või teisel moel panustavad regiooni digitaalsete barjääride vähendamisse. Võrgustikke võib seejuures leida erinevatelt valitsemistasanditelt – makro-regionaalselt ja valitsustevaheliselt riikliku, kohaliku ja kodanikuühiskonna tasandini välja –, ning neid käsitleti Läänemere regiooni digikoostöö erinevate perspektiividena. Niisiis tõestati, et kuigi täheldatav valitsemissüsteem on alles arenemisjärgus, on Läänemere regioonis tekkimas mudel, kus eri tasanditel paiknevad valitsemisvõrgustikud kujundavad ühiselt regiooni infoühiskonda.

Viimase uurimisküsimuse eesmärgiks on iseloomustada Läänemere regiooni digikoostöös arenevat võrgustunud valitsemismudelit vastavalt teoreetilises osas väljapakutud oletustele. Nende oletuste täiendamiseks saadi sisendit nii protsessi jälgimise kui ekspertintervjuude tulemustest. Kokkuvõttes võib öelda, et:

- Makro-regionaalse digikoostöö edendamise põhjusteks on nii riikide geograafiline lähedus kui ka Läänemere regiooni regionalismiprojekti poliitiline iseloom;

- Läänemere regioonis võib märgata üha enam digikoostööle suunatud võrgustikke kõigil valitsemistasanditel, kusjuures nende arenevate võrgustike põhieesmärgiks on suhete loomine ja kogemuste vahetamine, mis on eelduseks praktilisema koostöö kujunemiseks;
- Digikoostööle suunatud võrgustikud on paindlikud, ülesande- ja vajaduspõhised, panustades samal ajal ühisesse lõppeesmärki ehk regionaalse siseturu loomisse;
- Digikoostöö valitsemissüsteem on veel üsnagi killustunud ning selged vastastikused suhted ja kesksed juhid puuduvad, suund on aga järk-järgulise integreerumise poole;
- Riikliku tasandi roll peaks olema soodustada koostööd ning tegutseda teiste tasandite jaoks koostööpartnerina, kuid hetkel tunnetavad mitmed võrgustikud riikide poolset apaatsust digikoostöö edendamisel;
- Läänemere regiooni digikoostöö keskendub andmevahetusele IKT lahedusi rakendades (nt X-tee platvorm) ning vastavate piiriüleste barjääride ületamisele, millega seonduvad nii tehnilised, juriidilised, sotsiaalsed kui finantsilised aspektid.

Seega võib täheldada, et kuigi digitaliseerumisprotsessid peaksid muutma geograafilise paiknemise ja riigipiirid tähtsusetuks, on Läänemere regiooni digikoostöö kontekstis arenemas kaheksat riiki hõlmav valitsemismudel. Selle koostöövõrgustike keskse mudeli eesmärgiks on kujundada Läänemere regiooni infoühiskonda kollektiivselt, et tõsta regiooni ning tema liikmesriikide IKT-alast konkurentsivõimelisust ning rakendada suuruse-eeliseid, mida riikide suhteliselt väikeseid turge arvestades oleks muidu võimatu saavutada. Laiemas plaanis on selle makro-regionaalse valitsemismudeli sihiks aina süvenev digi-integratsioon Euroopa Liidus, kuid praktilisema digikoostöö võimaldamiseks on tarvis esmalt suurendada regiooniülest usaldust, teadmusülekannet ja innovatsioonivõimekust – see ongi praeguste koostöövõrgustike fookuses.

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APPENDICES

Appendix 1 – Overview of BSR digital cooperation networks

Regional level – Top of Digital Europe

Launched in June 2014 by the Baltic Development Forum (BDF) and Microsoft, Top of Digital Europe is a new independent think tank that promotes the BSR as a leader in the ICT sector. The aim of the think tank is to facilitate regional dialogue on how this leading role can be strengthened and to provide concrete recommendations as to how the digital economy can be further advanced. (Top of Digital Europe… 2014b) As the think tank itself stipulates, their specific objectives are to (Top of Digital Europe… 2014a):

- identify key issues and develop solutions related to the digital economy and ICT as a driver of growth;
- strengthen competitiveness through innovative cross-border actions;
- set the agenda by creating and stimulating a dynamic discussion on growth through ICT;
- address decision-makers at regional, national and European level as well as key stakeholders.

The think tank is hosted by the BDF, an independent non-profit networking organization that involves a wide range of partners, including businesses, governments, regional organizations and research and media institutions, altogether amounting to more than 8,000 contacts. The BDF provides platforms that bring together actors from diverse sectors and from across the BSR, promoting better cooperation, coordination and coherence, influencing regional policy-making and facilitating collaboration across regions, sectors and levels of decision-making. (Baltic Development Forum 2014a) For

more than 15 years, it has been the BDF's core mission to promote regional public-private partnerships through a strong network (Baltic Development Forum 2014b). The new ICT initiative underlines BDF's role as an internationally leading think-tank and as a serious cooperation partner in the digital field.

The first report of the think tank – Searching for the Micro-Multinationals[31] – addresses the challenges faced by SMEs in the ICT sector in growing and expanding across borders. It seems that many SMEs in the BSR are hesitant to embark on global growth ventures, whereas some do not even have the ambition to grow and expand their business. The think tank puts forward several recommendations on how growth can be stimulated through public-private initiatives across national borders. Among these recommendations is the establishment of a Baltic Sea Academy for SMEs, which could develop ICT-related niche competencies through online classes and strengthen regional collaboration between businesses and universities. (Linde & Espersen 2014) The think tank has announced that topics to be investigated in the next reports include ICT skills and the educational system, talent attraction and retention, big data as a cross-border growth driver for web entrepreneurs and cross-border e-government services for businesses and citizens. (Top of Digital Europe… 2014b)

Intergovernmental level – NB8 cyber cooperation

The Nordic-Baltic cooperation or NB8 is a regional cooperation format that includes five Nordic countries – Finland, Sweden, Norway, Iceland and Denmark – and three Baltic countries – Estonia, Latvia and Lithuania. While the meetings initially took place in a '5+3' format, it was decided in 2000 on the initiative of the Estonian foreign minister of the time, Toomas Hendrik Ilves, that the Nordic-Baltic cooperation format will be called the Nordic-Baltic Eight (NB8), which expresses greater unity. (Nordic-Baltic… 2014) Calling the cooperation format by the name of NB8 did not have any substantive implications, yet reinforced the image that the Nordic-Baltic region is represented by an intergovernmental framework which mainly functions on the political elite level.

[31] Available at [http://www.pwc.com/en_GX/gx/psrc/pdf/pwc-searching-for-the-micro-multinationals.pdf].

By now, the NB8 format has developed into a very well-established cooperation framework without creating separate structures of organizations for coordinating the everyday work. The presiding country is agreed upon annually and its responsibility is to determine cooperation guidelines for the respective year (Nordic-Baltic… 2014). The eight countries are consistently expanding their scope of cooperation, working on new channels in order to promote mutual values and safeguard security and stability also outside the region. Thereby, the NB6 is a separate cooperation format which embraces the NB8 countries that have joined the EU. The underlying aim is to reinforce the region as a model for cooperation for the EU and beyond, whereas the idea is not to develop the NB8 format into a regional organization, but rather to pursue a 'close supra-structural cooperation format based on joint values and interests both on the political and practical level'. (Rebane & Pajula 2008: 48) The most important strategic document of the format is the NB8 Wise Men Report[32], also known as the Birkavs-Gade report after its authors. The report was published in 2010 and contains a number of concrete proposals as to how Nordic-Baltic cooperation can be deepened (Nordic-Baltic… 2011).

2014 was the Baltic Sea Year for Estonia – besides presiding in the NB8 format, Estonia also chaired Baltic cooperation both in the Baltic Assembly and the Baltic Council of Ministers and assumed the presidency of the Council of the Baltic Sea States, VASAB and HELCOM. The four priorities for the NB8 cooperation were cyber cooperation, Eastern Partnership, energy cooperation and security cooperation. In relation to cyber cooperation, the Ministry recognizes that cyber cooperation is gaining ground in the Nordic-Baltic area and Estonia has so far been the unofficial leader of this agenda. (Baltic Sea Year 2014)

National level – X-Road Europe

Led by the Estonian Information System Authority, Estonia's public agency for central e-government solutions, X-Road Europe is a project that aims to facilitate the creation of innovative e-services both within member states as well as between countries (cross-border e-services). It is a service-based architecture designed to enable the quick and

[32] Available at [http://www.utanrikisraduneyti.is/media/Skyrslur/NB8-Wise-Men-Report.pdf].

inexpensive development, provision and use of new electronic services and enables data exchange in fields that do not yet have a pan-European technical solution. (X-Road Europe… 2014a) As a secure and standardized data exchange environment for information systems, X-Road Europe could be used by public and private sector organizations to access public services in the EU (X-Road Europe… 2014b).

X-Road Europe is based on the core technology of X-Road, which was commissioned by the Republic of Estonia in 2001. The environment was developed in order to save on the costs of bilateral data exchange between information systems. Another objective was to ensure high security and the up-to-date standardization of data exchange. Today, X-Road has become one of the key pillars of the Estonian e-state, including services such as declaring taxes electronically, checking one's personal data (e.g. exam results, health insurance), submitting a residence application electronically etc. (X-Road Europe… 2014a) Today, over 2,000 services are used via X-Road in Estonia, used by over 900 organizations and 50% of Estonians (X-Road Factsheet 2014).

In 2013, the Government of Finland announced the decision to implement the Estonian X-Road infrastructure. The aim, however, is not only to implement a similar environment to benefit Finnish citizens and enterprises in offering public services faster and at lower costs, but also to develop cross-border cooperation in e-services between Estonia and Finland. As the first pilot service, the Estonian Tax and Customs Board launched cooperation with the Finnish Tax Administration to bring cross-border data exchange to the X-Road channel (RIA 2013).

Sub-national level – Digital Baltic

Digital Baltic is a project promoting digital innovation in Public Sector Information (PSI) and Open Data in the BSR from a citizen perspective to establish the BSR at the forefront of developing a digital single market in the EU (The Digital Baltic… 2014). The point of departure is that PSI and Open Data are strongly underutilized in Europe and the potential economic value is high. Thus, there is a huge economic potential for the BSR to spur innovation within this field, especially among SMEs. (Digital Baltic 2015a)

The short-term objective of the project is to ensure new innovations in the PSI sector by using the working method of Open Space[33] (The Digital Baltic… 2014). The long-term objective is to develop the Digital Baltic project and the partnership towards the next program period in the BSR, with the aim of demonstrating the BSR as a good example for the rest of Europe in developing a digital single market (The Digital Baltic… 2014). The main partners of the project are Värmland County Administrative Board (Sweden), Võru County Government (Estonia), Kaunas Regional Development Agency (Lithuania) and Hedmark County Council (Norway) with supporting partners from Sweden, Lithuania, Estonia, Poland, Norway and Denmark (Digital Baltic 2015a). The project duration was 12 months – from January to December 2014 (Võru County Government 2014).

According to the final report of the project (Digital Baltic 2015b: 9), the differences and gaps that exist between countries and regions in the BSR should not be allowed to grow larger. Collaboration between regions is seen to have a central importance within this thematic area to overcome the challenge and make the BSR a prosperous place to live in. The Digital Baltic project believes that by applying the quadruple helix innovation model by e.g. using the Open Space model, citizens are inspired to come up with new innovations and ideas that will increase the re-use of PSI and Open Data in the region.

Civil society level – BSR TaxI

The e-Governance Academy (eGA) is a non-governmental, non-profit organization founded for the purpose of creating and transferring knowledge concerning e-governance, e-democracy and the development of civil society. The Academy was established as a joint initiative of the Government of Estonia, the Open Society Institute and the United Nations Development Program. The Academy was officially launched in 2002 and by today, eGA has cooperated with more than 50 countries. (e-Governance Academy… 2015)

[33] Open Space meetings are gatherings where participants create and manage their own agenda in parallel working sessions around a central theme of strategic importance (Digital Baltic 2015a).

eGA promotes the use of ICT in the work of governments and in democratic practices. It provides training in e-governance and e-democracy, serves as a platform of exchange of experience and conducts related research. The primary target audience includes civil servants, policy makers and representatives of civil society. (State Information Systems 2015) By training and advising leaders and stakeholders in using ICT, eGA contributes to increased government efficiency and improved democratic processes with the aim of building open information societies. (e-Governance Academy… 2015) The aim is to analyze and promote the use of best practices in the field of e-democracy, cyber security, ICT in education, local e-government and central e-government and underlying is the assumption that e-governance is much more than technology – it is also about management and coordination, legislation and regulation, planning and principles, frameworks and architecture. (e-Governance Academy… 2011)

One project specifically focusing on the region is called BSR TaxI – cross-border cooperation on the electronic exchange of tax information in the BSR. Funded under the EUSBSR Seed Money Facility and running from January 2014 until March 2015, the project prepares the ground for a fast and secure exchange of tax-related information. The consortium gathers tax authorities and state agencies responsible for the development and maintenance of state information systems from three BSR countries – Estonia, Sweden and Latvia. Led by eGA, the partners have joined forces to improve the cross-border exchange of online tax information and the related delivery of government services to citizens. (Cross-border cooperation… 2015)

Appendix 2 – Interview outline

Network-specific insights

- What conditioned the establishment of the network?
- What have been the biggest successes of the network?
- Who are the main beneficiaries of the network?
- How sustainable/durable is the network? What are the future plans/ultimate goal?

MLG

- Who are the network contributors? What is their role?
- What is the role of various stakeholders (including public, private and civil society) in the network?
- How do various levels interact/cooperate with one another? Why is it necessary?

BSR digital landscape

- Why does the network have a BSR scope? What is the added value of addressing digital matters macro-regionally?
- What are the key topics that should be promoted under the BSR digital agenda?
- What are the biggest barriers of BSR digital cooperation experienced by the network? What could the solution be?
- What is the current situation of BSR digital cooperation? How could it be boosted?

Relation to DAE and EUSBSR

- How does the network relate to the priorities of (a) the EU Digital Single Market, (b) the EU Strategy for the Baltic Sea Region?

Appendix 3 – Results of network mapping

	Level	Type	Founders	Year of est.	Key topics	Aim	BSR focus	Contribution to BSR digital cooperation
Top of Digital Europe	Regional	Think tank	Baltic Development Forum + Microsoft	2014	Micro-multinationals, ICT skills, talent attraction, big data, cross-border e-government services	Identifying issues and developing solutions related to digital economy	yes	Promoting the BSR as a leader in the ICT sector, facilitating cross-dialogue
NB8 cyber cooperation	Intergovern mental	Coope-ration format	Baltic Assembly + Nordic Council	2014	Cyber security, digital signatures, administrative data exchange	Promoting the regional cyber cooperation agenda	yes	Cyber cooperation related discussion on the political elite level
X-Road Europe	National	Service (project)	Estonian Information System Authority + Rep. of Estonia	2013	Data exchange and standardization, central e-government solutions, cross-border e-services	Providing simple infrastructure and secure data exchange for e-services	no (EU)	Fostering the creation of innovative cross-border e-services (e.g. EE-FI)
Digital Baltic	Sub-national	Project	Värmland County Admin. Board + Swedish Institute	2014	Public sector information, open data, open space method	Stimulating digital innovations in the fields of PSI re-use and open data	yes	Promoting the re-use of public information and encouraging citizen engagement
BSR TaxI	Civil society	Project	Gov. of Estonia + Open Society Institute + UN Development Program	2014	e-democracy, cyber security, ICT in education, local e-government, central e-government	Promoting the use of ICT in the work of governments and in democratic practices	yes	Developing best practices, promoting the exchange of tax information