



FLEXIBILITY WITHIN NETWORK ORGANIZATIONS

A case study of the TEN-T and Three Seas Initiative

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Flexibility within Network Organizations: A Case Study of the TEN-T and Three Seas Initiative

by

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M U N I

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Abstract

Networks have become an important part of European regional integration particularly within the advancement of territorial cohesion through the development of infrastructure. Within the central European countries, within the European Union (EU), a relatively new network focused on infrastructure has emerged called the Three Seas Initiative (TSI). Within the EU there is another network with an infrastructure focus called the Trans-European Networks – Transport (TEN-T). These two networks have similar goals, to increase European infrastructural cohesion but have been structured differently with the TSI having no central organization to coordinate unlike the TEN-T which is coordinated by the EU Commission. Network governance theory argues that the structure of the network affects the traits of the network such as flexibility. Flexibility within infrastructure focused networks is an important trait to study due to the long-term nature of building infrastructure. Within this study the researcher applies network governance theory to a small-N case study of the TEN-T and the TSI comparing the two networks using co-variational analysis (COV). The independent variable that is studied is the existence of a network administrative organization (NAO) within the network. An NAO is present in the TEN-T and not present in the TSI which is classified as a participant-governed network. The dependent variable studied is the effect on flexibility. The hypothesis being that the existence of an NAO leads to lower flexibility within a network. The data was gathered using semi-structured interviews of ten civil servants from the TSI and the transcripts were analyzed using thematic content analysis (TCA). The themes identified which indicate a high amount of flexibility are experimentation and confusion which was more prevalent in the TSI while themes indicating low flexibility are centralization and bureaucracy, these being more present in the TEN-T. In conclusion the study indicates that the TSI is more flexible than the TEN-T in response to the research question: *How does the network organization of TSI and TEN-T affect their flexibility?*

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Introduction

The European Union (EU) is the largest and most integrated trading bloc in the world that has become an example of what regional integration is capable of. Most notably we can see these successes within the interconnectedness of infrastructure within the EU. As trade has become increasingly transnational, the EU has taken it upon itself to develop cross border infrastructure to facilitate this trade. Traditionally these projects were coordinated on the EU level with the Commission acting as the coordinator, through intermediary organizations, choosing from projects based on competitions for funding. There have also been other EU-led initiatives to promote cohesion directly within the regions and metropolitan areas. As the EU continues to integrate, it is constantly developing new methods to achieve cohesion and interconnectedness. Within the eastern flank of the EU a new initiative is developing that can prove to be another way of furthering this goal. Why would EU countries, that could have created such a structure within the institutions of the EU, choose to create such an independent loose intergovernmental forum to achieve ostensibly the same goal?

The Three Seas Initiative (TSI) is a political platform of 12 EU Member States that are located between the Black, Baltic, and Adriatic Seas (BBC Worldwide Monitoring, 2020). The reason given for such a platform is to expand regional infrastructure and increase the economic growth of the region. The necessity for something to be done is clear when one considers that the 12 states of Central Eastern Europe that are part of the platform cover 28% of the EU's territory, and 22% of its population, but only represent 10% of the EU's gross domestic product (GDP) (Calheiros, 2020). The reasons for this disparity are multifaceted and complex. It comes from history and the fact that 11 of the 12 countries were under the socialist bloc during the Cold War and did not have access to the US-led Marshall plan and could not take full part in European integration projects until 2004 and 2007 (except for Austria which is the anomaly of the 12 states). There is currently a debate within the region. There are those who say that joining the EU has not substantially helped the 'rejoining' to the West of 'New' European countries as there still is a sizable disparity between older member states and newer ones (Zbińkowski, 2019). This can be seen for example in the lack of infrastructure in CEE compared to the EU-15 (Dybczak et al., 2020). This is contested by Palier et al. (2018) who see that after the economic downturn of 2008 the region is not so uniform, with countries like Poland and the Czech Republic, with close ties with Germany, doing better than more southern and eastern 'peripheral' countries. The TSI is a source of fierce debate and

interpretation. Such as being viewed by some as not being just another infrastructure project but as a continuation of the interwar period idea of 'Intermarum' which was supposed to be a federation of newly formed Central European states to act as a bulwark against Russia (Bogdanova & Makarychev, 2020). Some claim one of this project's main goals is to lessen Russia's influence in the region as well as draw out Ukraine, Belarus, Moldova further away from Russia (Kurecic, 2018; Lewicki, 2021; Schmidt, 2017; Zięba, 2020). Yet others see it as a way for the illiberal democracies of the region to further counter 'Brussels' by creating a separate forum of regional cooperation (Nyssönen, 2018). But there is also the strong case to be made that it does not hinder EU integration but enhances it. Through the cooperation of these peripheral states in the EU to reach a closer level of interconnectedness amongst themselves as well as the EU, this will bolster both the geopolitical and economic strength of the region (Lewicki, 2021).

The TSI is not under the EU and is instead a presidential forum with an independent fund in Luxembourg and its own priority projects. What is more interesting is that the TSI, when it comes to infrastructure, is very similar and often overlapping to the TEN-T of the EU, but due to how the cooperation is organized seems to be much more flexible than the TEN-T.

Similarities between the TEN-T and TSI are that they are infrastructure focused, and both having a goal of better connecting the European Economic Area (EEA) member states through projects. In the TEN-T these projects are collectively called the core network corridors with the core network supposed to be completed by 2030 and the comprehensive network by 2050. The TSI has a 'list of priority interconnection projects' which were created at the 2018 Bucharest summit, currently there are 90 interconnection priority projects, with 49 per cent of them being transport focused (Three Seas Initiative, 2021a). Another similarity is that they are both completely within the EEA. The TSI being completely composed of EU member states. Another similarity is that some projects are outside the scope of the EEA in both the TEN-T and the TSI, which shares some projects with Ukraine or Belarus for example. Other similarities are that both institutions rely on EU funds with many of the projects of the TSI receiving significant funding through the Connecting Europe Facility (CEF) in fact sharing many of the projects with the TEN-T. One of the main differences is the way they are run, the TSI is a presidential forum, the member states oversee the running and continuing of the organization. The TEN-T is under the Commission and delegated through DG MOVE and CINEA, an EU agency.

It was not necessary to create a structure outside the EU to achieve these goals, as regional cooperation is allowed within the EU and there is an enhanced cooperation mechanism which allows nine or more member states to cooperate more closely on specific areas than is currently the case in the EU (EU Monitor, 2021). The TSI comprises 12 member states and could have gone down this route but has chosen not to formally involve the EU in the structure instead giving it and Germany observer status similar to the US. The US also plays a large role in the TSI, with President Donald Trump attending the 2017 TSI summit in Warsaw, the House of Representatives approving of the TSI unanimously, as well as President Joe Biden voicing his approval through video conference on the 2021 Sofia summit. The US sees a geopolitical advantage in investing in the region as to counter the influences of Russia, and China which has a 17+1 program with Central Eastern Europe (Brzozowski, 2020).

The TSI, if successful, can show a new regional model of integration for current and future member states of the EU, based on less formal and more flexible intergovernmental meetings. The TSI model is unique in the way that it is an initiative of 12 new EU member states coordinating regional projects and drawing in funding from both the EU, the United States, and the private sector. Although many of the projects including the two case studies will be supported by EU funds, the initiative itself does not fall under the EU and is not purely EU focused (Wemer, 2019). As this initiative is a relatively new form of infrastructural integration within the EU it is necessary to see the benefits of having such an informal intergovernmental organizational structure where countries can bring their nationally significant projects to cooperate where necessary with the surrounding governments. In assessing a new structure, it is paramount that we compare it against other, more well-established types of organizational structures, to better understand the merits of one over the other (Innovation and Networks Executive Agency, 2019). Such research is doubly significant due to the relative novelty of this kind of network organization within European integration. The most interesting aspect of this new form of network that has not yet been studied is the role flexibility plays in it. Not only will the merits of flexibility be discussed but also drawbacks and negative aspects of the cooperation can be identified allowing for the TSI as well as future international network cooperatives to amend and counteract negative tendencies within a certain type of network organization and maximize the benefits of such organization. Research of this kind can better inform experts and policy makers and allow them to strategize network formation and centralization being aware of the effects that come with one form of network organization or

another. Which leads to the research question how does the network organization of TSI and TEN-T affect their flexibility?

What has been lacking in the analysis of the TSI and the TEN-T is how the type of network governance effects the traits of the network. One of the traits that are most interesting within the theory of network governance is flexibility especially in the context of infrastructure development as infrastructure is a large investment that takes a very long time to develop. Networks depending on how they are governed can lead to more flexibility which could influence the long-term infrastructure projects planned. Flexibility is a variable found in every kind of organization and network structure. By analyzing the way flexibility is affected by the governance choice in these two intergovernmental infrastructure networks planning by policy makers on how to maximize the efficiency of the network can be better informed both within the TEN-T, the TSI but also infrastructure cooperation projects around the world. With the world becoming ever more closer and trade even more important, international infrastructure projects will likely become ever more prevalent. By knowing the effects that the network organization has on the nature of cooperation in this sector future projects can be organized to better fit their goals.

To see what role flexibility plays within the TEN-T and the TSI a comparative case study is conducted using co-variational analysis (COV) and thematic content analysis (TCA). The first section of the study is a literature review where literature from related disciplines is presented these being network governance theory, EU regional cooperation and EU regional integration of infrastructure. This leads to the knowledge gap, a network governance study of EU regional infrastructure projects such as the TEN-T and the TSI from the perspective of flexibility. The following section presents the theoretical framework of the study presenting what is flexibility within the context of network governance theory. This is followed by a case description of the two networks the TSI and the TEN-T. The history of the networks as well as the variables of the COV study are presented. Afterwards the methodology of the study is presented where the COV method in the context of the TSI and the TEN-T is presented as well as the method for attaining and analyzing the data these being ten semi-structured interviews with civil servants from the TSI countries. The main method of analyzing the themes from the interviews is TCA. Following the methods section is the results section in which the themes that are connected to the network governance theory connected to flexibility are presented and on which basis the conclusion that

indeed network organization does affect the flexibility of a network. This is followed by a discussion in which the results and their connection to the theory are presented as well as the researchers' recommendations for the networks in light of the results. In the discussion are also presented the limitations and challenges in conducting the study. The thesis ends with a summarizing conclusion of the thesis.

The thesis applies network governance theory to a type of network not often viewed by the theory. The research shows that network governance theory can be applied to infrastructure networks within the EU and that such a trait as flexibility can be affected through the structure of the network. This is significant as collaborative networks in the arena of infrastructure has become the norm within Europe as the EU integrates, by consciously structuring the networks with the goals in mind policy makers can further maximize network efficiency and avoid traits that would hinder their goals. In the following section the literature review covers in depth the current literature within adjacent topics relevant to the study in order to ground the research in the already existing literature.

Literature Review

In the previous chapter the topic of the study is introduced, within this section the literature adjacent to the study is presented in order to ground the study within what is currently known and theorized. This study fills a knowledge gap which exists between three themes. In this section these themes are presented, and the knowledge gap identified. Within the literature available, there are three themes that have been studied on regional integration that match the TSI's goals. The themes are network governance, EU regional cooperation, and EU regional integration of infrastructure. The literature review shows what is known of flexibility within network studies. Then it will cover multi-level governance within the EU as well as regional integration and infrastructure.

These themes are necessary to examine the question of flexibility within the TSI and the TEN-T. The goals of both the TEN-T and the TSI are closely linked to European integration theory. Without European integration which led to the single market and in large part to the European Union the need to create networks focused on infrastructure integration between EU countries would not be as necessary due to both trade and non-trade barriers. The level of infrastructure integration desired by both networks between these sovereign countries is only possible due to the existence of the EU. Out of the more general theme of EU integration, it is vital to explore more in-depth EU regional integration of infrastructure as this area is at the heart of both the TEN-T and the TSI as both are methods by which the EU and its member states wish to achieve one of the most difficult parts of European integration, that being through the connection of national webs of infrastructure. To understand the reason why sovereign states would agree to join networks such as the TEN-T and the TSI it is important to understand European integration and European integration of infrastructure. As the study applies theories of network governance to these infrastructure networks, an understanding of the theory of network governance and flexibility within networks governance is required. The following section will examine flexibility within network governance then move on to European integration and end with the more specific theme of European integration of infrastructure.

Network Governance and Flexibility

This first section describes network governance and the role of flexibility within it. As the theory is the basis of the analysis of the two networks it is important to see what the state of the theory on network governance is. Understanding the existing literature on this theme is crucial to

the research as it is the theory on which introduces and explains the relationship between the dependent and independent variables in the study. Network governance as a separate field rose along with the rise of real-world complexity. One of the first to identify that network governance is not a hybrid form of governance between markets and hierarchies was Powell (1990). The topic of network organization in international transportation cooperation is not well studied, as the study of networks has been primarily towards the economy (Huxham & Vangen, 2005; Powell, 1990; Provan & Kenis, 2007; Provan & Milward, 1995) and increasingly in public policy (ex. Agranoff, 2007; Goldsmith & Eggers, 2004; Kickert et al., 1997; Koppenjan & Klijn, 2004; Mandell, 2001). This implies that the lack of study of international transportation cooperation through the lens of network governance is a result of its ability to provide alternative forms of policy formation that do not rest on simplistic hierarchies. They are also much better at reflecting the complexities of social governance that exist in today's societies.

Flexibility within network organization is one of the key elements of networks and is one of the key elements that differentiates network governance from organizations. Flexibility manifests itself in networks through different means such as the ability to enter and exit networks, changing the status within a network and the ability of networks to change quickly in a short matter of time. Huxham & Vangen (2005) call this ambiguity which can be interpreted as another term for flexibility. Some issues identified with this flexibility are confusion that arises from constant shifts and accountability issues due to the lack of hierarchy (Huxham & Vangen, 2005). While Huxham & Vangen (2005) argue that flexibility within network structures to have both positive and negative implications, Powell (1990) on the other hand argues that flexibility within a network is one of its greatest advantages as it greatly increases the speed of cooperation as compared to much more hierarchical structures. But while speed and flexibility within a network are some of its largest assets if a network has too much flexibility it can affect network efficiency. A network that is too flexible suffers in stability. Stability within a network allows the development of long-term relationships and the understanding of other members' abilities which allow the network as a whole to maximize outcomes (Provan & Milward, 1995). Since flexibility and stability are often found on the opposite sides of the network governance spectrum certain types of network governance have been found to provide more stability due to the inclusion of hierarchy in the network organization while others are more conducive towards flexibility due to their lack of hierarchy. Jones et al. (1998) argues that participant-governed networks are best for more short-term goal-

oriented cooperation where the direct participation of the participants is required. As the lack of hierarchy in participant-governed networks is more conducive of flexibility. In contrast when a network is more long term and needs more commitment from its participants, the inherent structure provided by the hierarchy of an NAO or lead organizational structure will be more conducive (Provan & Kenis, 2007).

The study of flexibility and stability within the organization of networks is not all in agreement with Provan & Kenis (2007). Wachhaus (2012) argues network organization through an Anarchist perspective and uproots certain notions of the antithesis of stability and flexibility proposed by Provan & Kenis (2007). Wachhaus (2012) argues that stability in much of the literature is connected to the structure of networks and not to the linkages that hold the structure together. Therefore in his view you would not increase stability within a network by adding hierarchy and rigidity (such as forming an NAO or lead organization) but rather stability can be achieved by having tighter bonds holding the network together without hierarchy therefore by tightening the links between network members stability can be achieved in a participatory governed network without affecting flexibility and network efficiency.

EU Regional Cooperation

The previous section shows the literature concerning the theory of network governance as concerns flexibility. The following section discusses the literature surrounding EU regional cooperation as it is one of the main goals of both networks within the case study. In this section the existing relevant literature on EU regional cooperation is presented. This topic is central understanding the main motives that led to the TSI and TEN-T. EU regional cooperation has been studied extensively. Two types of regional cooperation within the EU are of interest to European integration scholars, there are those led by the EU and those consisting of EU countries but not officially part of the EU.

The first kind, which predate the EU are regional groupings of countries that take different forms. The EU took inspiration from the Benelux cooperation which began in 1944 with the establishment of a Customs Union which predated the foundations of the EU and served as a model. While the Benelux is an example of deep integration with many intergovernmental institutions such as a parliament, these regional groupings form for various reasons with varying degrees of institutionalization. On the other side of the spectrum of institutionalization of an outside EU

cooperation would be the Visegrad Group which, other than a regional fund, has no institutions. It is a forum of regional discussion between the governments of the member states. The EU plays a large role in the V4 as the main reason for its creation has been to achieve EU membership. Even after achieving membership the four countries continued to cooperate through the format to coordinate common EU positions as well as advocate in the EU for the rights of medium and small states (Jasiecki, 2020). These kinds of regional cooperation such as the V4, fall within the theoretical framework of multi-speed Europe.

Multi-speed Europe in which certain countries will integrate faster with each other (such as the Benelux) and other countries will be slower to integrate and seem even to resist EU integration such as three of the V4 countries Poland, Czechia and Hungary which have notably yet to join the Eurozone. This falls into the wider debate of multi-speed European integration. European integration comes from neo-classical economic theory which states that through the unification of markets and the breakdown of barriers the economy will naturally allocate resources where necessary which will naturally lead to the convergence of the member states (Blanchard & Giavazzi, 2002; Solow, 1956). This claim by neo-classical scholars that convergence is inevitable through integration has been questioned notably by Franks et al. (2018) and divergence has been documented between EU countries monetary policy even after adopting the Euro (Fidora et al., 2021; Mazier & Valdecantos, 2015). Multi-speed Europe can be viewed through the lens of the Core and the Periphery patterns (Califano & Gasperin, 2019; Verspagen, 2009). The V4 is often viewed as an example of multi-speed European integration and often as consciously resisting further integration. The CEE region of the EU is often viewed as lagging in EU integration with some countries, such as Poland and Hungary actively working against further integration. This view of the V4 as drivers of multi-speed Europe through their lack of ambition in integrating in certain ways such as the monetary union or migrant reallocation quotas can cast light on the skepticism of scholars to new models of integration within the region especially not directly involving the EU such as the 3SI (Balfour & Kirch, 2017; Ling, 2017). In addition to the lagging behind of the V4 in integration does not mean that they are for a multi-speed Europe. It is more western states that would like further to integrate and advocate for a multi-speed Europe while the V4 advocate for a single speed Europe. This shows that cooperation between European countries does not always lead towards further integration, while the Benelux do integrate and have acted as a catalyst for European integration in the past. The V4 cooperation resists further integration within

the EU but is also against other member states being able to integrate further themselves. The previously believed direction towards an 'ever closer union' has recently been brought to question through such groupings like the V4 and it is a worry that the 3SI could be a larger grouping that could act as a bulwark against furthering integration within the EU.

Other than non-EU country groupings there are also macroregional strategies. They are under the EU with their basis in the Treaty of Lisbon, and do not have clearly defined criteria. The four macro regions can be found mostly in Central Eastern Europe. They can be made up of EU member states, EU-regions, and non-EU regions and tend to be formed around certain macro regional issues (Gänzle et al., 2019; Lawrence, 2011). The Macro Regions can be viewed from the lens of type two multi-level governance (Bache et al., 2016). They are task specific cooperation that can be made up of both cross-border regions and state level, where entire countries can negotiate with regional and local actors in the same forum. The main feature of these macro regions is not what defines them but what limits them, namely the three 'no-s'. These are no new EU legislation; no new EU institutions and no new EU budget should be used to directly support EU macro-regions. This means that they mostly function within the already existing EU and national frameworks. This makes the macro regions an interesting phenomenon of the EU that attempts to go beyond type one multi-level governance by merging different levels across regions around a certain issue. As macro-regions are under the EU but work from a bottom-up approach, it is a current question whether the TSI could benefit from becoming an EU macro-region thereby assuaging the anti-EU critiques it has garnered from critics (Jarończyk & Przybylski, 2021).

The TSI does not seem to be a traditional territorial cooperation in the region as it was able to unite all the post-communist countries into the same initiative and while its goals are well within the EU's goals of connectivity, cohesion of transport and infrastructure it does have member states in it with strong anti-EU values who could possibly seek to undermine the EU. This is the first EU regional project in which its benefit to EU integration is questioned (Grgić, 2021). The traditional view always being that all forms of regionalism within the EU would benefit EU integration as they would lead to the diminishing importance of borders between states (Rees, 1997).

EU Regional Integration of Infrastructure

The previous section discussed EU regional cooperation as a concept. The following section concerns particularly the role infrastructure plays in EU development. The two networks which are

being studied have a special interest in integrating the infrastructure of their member states. That is why the third section further delves into the regional infrastructure aspect of European integration as the TSI and the TEN-T both state that this is the main goal of their cooperation. Integration of infrastructure within the EU became a topic of interest with the enlargement of 1986 and the entrance of Spain into the Union which was much less developed in many areas including infrastructure than the original six members. It was also seen that the EU, which set itself the goal of creating a single market within the EU by 1992 within the Single European Act of 1986 has disjointed infrastructure along national borders. In order to have a single market amongst member states with such disjointed infrastructure as existed between Germany and Spain territorial cohesion was necessary to ensure social cohesion. Regional Cohesion has its basis in article 14 of the TFEU:

*Without prejudice to Article 4 of the Treaty on European Union or to Articles 93, 106 and 107 of this Treaty, and given the place occupied by services of general economic interest in the shared values of the Union as well as **their role in promoting social and territorial cohesion**, the Union and the Member States, each within their respective powers and within the scope of application of the Treaties, shall take care that such services operate on the basis of principles and conditions, particularly economic and financial conditions, which enable them to fulfil their missions. The European Parliament and the Council, acting by means of regulations in accordance with the ordinary legislative procedure, shall establish these principles and set these conditions without prejudice to the competence of Member States, in compliance with the Treaties, to provide, to commission and to fund such services.*

The article stresses not only social but territorial cohesion, and this is found throughout the entirety of the TFEU with such wording. This shows that to the EU social cohesion is connected to territorial cohesion. Access to transport is vital for the achievement of social and territorial cohesion as it allows more opportunities to different communities which serves as justification for the EU investing in such projects which may not lead to large scale returns on investment in terms of cost-benefit ratios (López et al., 2008). Although the EU and scholars view regional infrastructure investment to be helpful to achieving territorial cohesion there are scholars that say certain kinds of territorial cohesion investments can lead to an increase in regional disparities (Bachtler & McMaster, 2008; Kitson et al., 2004; Vickerman et al., 1999).

The question whether the European Cohesion policy has come with successes is currently being debated. Since its inception peripheral regions have grown at faster rates than the core of the EU on average. It seems that the EU's type two multi-level governance strategy in contrast to the more hierarchical approach before 1989 where the EU supported national regional policies and did not have its own does bring more benefits (Leonardi, 2006).

Knowledge Gap

After the presentation of the most relevant literature on the topic of network flexibility and the main goals of the TSI and TEN-T a knowledge gap is apparent. When exploring the literature on the topic of network organization flexibility theory within infrastructure integration networks such as the TSI and TEN-T the literature is yet to exist. The literature surrounding flexibility within network organizations as developed by Provan & Kenis (2007) is widely accepted but there have been dissenting voices from Wachhaus (2012). But while the theory of network organizations has been developing and have been used more in the public sector, network governance in international relations and regional groupings have yet to be studied thoroughly. That is not to say regional groupings within the EU have not been studied. Regional groupings originally were considered the catalysts of EU integration. Fairly recently the concept of multi-speed Europe has become more widely accepted and the V4 as a contrast to such groupings as the Benelux have been used to show that Multi-speed Europe is becoming the reality that we live in. These non-EU groupings have been studied within the context of multi-speed Europe but there are also EU macro-regions that stem from multi-level governance theory type two which has been developed to describe the EU's unique way of integration. When it comes to infrastructure and the EU, the need for the development of cross border infrastructure as a prerequisite is unquestionable but the way that the EU's method of achieving infrastructure cohesion amongst the member states is debated whether it is a success or not.

While there is a breath of literature about network studies, European networks, European integration, and infrastructure cohesion, there seems to be little research available on how the existence or lack of existence of central institutions within international networks affects them within the current theory of network governance. With more knowledge on this researchers and policy makers can better structure the organization of networks to match the goals they wish to achieve. The TSI and the TEN-T are well suited for a comparative study as they have very similar goals but differ in the network organizational structure. By studying the difference between

flexibility and stability of each network with those in the TSI who work with them it would further the knowledge on how to better form international networks suited to the goals they wish to achieve.

Theoretical Framework

In the previous section, the literature surrounding the topic of network organizational theory has been presented, within this section the specificities of the dependent variable, flexibility, will be presented in depth within network governance theory. In the theory network effectiveness is defined as the attainment of positive network-level outcomes that could not normally be achieved by individual organizational participants acting independently. 'Network' is defined as groups of three or more legally autonomous organizations that work together to achieve not only their own goals but also a collective goal. It can be self-initiated, by network members themselves, or can be mandated or contracted (often in the public sector).

Flexibility as an inherent trait of networks has been identified as one of the largest advantages of networks over hierarchical forms of organization (Powell, 1990). Powell (1990) identifies flexibility as 'the demand for speed' within economic networks. They argue that networks within economics were superior to traditional hierarchical organizations when it came to technological competition due to their inherent strengths, these being: fast access to information, *flexibility*, responsiveness to changing tastes. The connection of networks to flexibility as a trait was also argued for by Huxham & Vangen (2005) but in a much more neutral way as while the researchers argued that flexibility can be a positive trait in networks there are also risks that come with such flexibility. They call flexibility *ambiguity* which is the ability of network members to enter and exit networks at will, change their status within the network as well as to change the network in a short manner of time. The risk of too much flexibility within a network is that it may lead to confusion. This confusion arises through accountability problems as well as the lack of hierarchy. The opposite of flexibility is stability, a trait found traditionally within the hierarchical organizations of traditional companies or states. It is also a trait that can be found within networks although it is diametrically opposed to flexibility. Provan & Milward (1995) found that stability within networks lead to the development of long-term relationships and understanding of the role best suited for other members within the network in order to maximize outcomes. Jones et al. (1998) argued that certain types of network governance are more conducive towards stability or flexibility within a network and that through the choice of network organization the resulting network would be either more or less stable.

Provan & Kenis (2007) argue that there are three main models within network governance these being participatory governed networks, lead organizations and network administrative organize (NAO). They argue that the governance of organizational networks and the impact of governance on network effectiveness and assert that NAOs are more conducive of stability and less flexibility. While in participant-governed networks, we see that they are more conducive of flexibility and less stability. In the work, they develop three basic models of network governance, focusing on their distinct structural properties.

The basis of the division between these three network structures are ways in which network cooperation is organized between network participants. They go from least centralized, participatory governed cooperation to two different forms of centralization of cooperation, lead organizations and NAOs. The participant-governed network structure has no central member nor has a central organization to manage cooperation. Participant-governed networks are solely governed by its members each member being equal. The other two forms of network governance are two kinds of network centralization. The lead organization is when one member of the network takes on the function of governing the network as well, this network member takes on the running of the network and coordinates the cooperation within the network. The other form of centralization is when no member oversees the cooperation instead all members form and maintain a separate organization tasked with the coordination of the cooperation between members as well as the day to day running of the network. The type of network organization chosen must take into consideration such aspects as trust, number of network participants, network goal consensus, and need for network-level competencies to maximize network efficiency (Provan & Kenis, 2007).

Networks inherently face inner tensions in network organizations. The first type of network tension is efficiency versus inclusiveness. This tension concerns the inherent contradiction that as networks gain more members governance within the network becomes more difficult as consensus becomes more complicated to achieve. The more network members the more centralization is required, so when a network is larger a lead organization can govern. A NAO is best suited for large networks as the NAO is allocated resources necessary for the running of the network. When a network is smaller a participant-governed network is sufficient. The second form of tension is between internal versus external legitimacy. Depending on the needs of the network members and the reason for cooperation either internal legitimacy or external legitimacy is desired more. The

tension is between the legitimacy of the network itself and with the members. A lead organization and NAO give higher amounts of external legitimacy due to the legitimacy of the lead organization or the seemingly institutional nature of the NAO. A Participatory governed network may have lower external legitimacy but can have high internal legitimacy. The third type of tension is between flexibility versus stability.

Networks can be flexible when the goal is short term and participants can join and leave depending on if they have achieved their goal or not. But for networks that are not simply focused on a temporary, short-term project must also focus on sustainment. Stability is critical for maintaining legitimacy both inside and outside the network. Stability means that relationships between participants can be long-term, which leads to understanding of each other's strengths and weaknesses and maximizing network outcomes. Shared governance is more conducive to more flexibility, while lead organizations and NAOs are more suited to stable networks due to their more structured nature.

The question of an NAO and lead organizations which are more structured forms of governance and therefore being more stable has been brought to question by Wachhaus (2012). They argue that hierarchy can be decoupled from notions of stability. Another source of stability can be derived from the strength of linkages between network nodes. This would seem to be the case with the Visegrad Group, which has been in existence since the 90s without any formal structure. This strength between linkages may come from common ground or a shared area, this would be the case for the V4 as the countries all inhabit the same region and therefore have tangible common interests that can be the basis for a stable network without hierarchy. This would mean that in theory the TSI could be as stable as the TEN-T without having a hierarchy.

The hypothesis of the study is that network governance theory is correct and that the type of network governance does affect the flexibility of a network, and that the flexibility within the TSI will be higher than in the TEN-T. The theory that networks governance does affect the flexibility of networks has been chosen over the theory presented by Wachhaus due to the lack of ability to apply an anarchic model to network governance in the context of states which are hierarchical in nature. The established model by Provan and Kenis has place for hierarchy within the system and has been applied previously to both an economic and national context. Wachhaus's

anarchic model has not been applied to an international level and is yet to be explored by other researchers within the context of networks of states.

These theories on network organizations and of how the structure can affect the level of stability and flexibility in the network can be tested. The two networks of interest, the TSI and TEN-T have most variables in common and the dependent is precisely the structure of network organization. Through interviewing TSI member state officials, who consequentially are also EU and therefore TEN-T member states I can see whether the TSI's very informal structure hampers stability and increases flexibility as compared to the TEN-T which is structured as a textbook NAO. Within the next section, the description of the two cases is presented and the most important control variables introduced.

Case Description: The Two Networks

In the previous section the main theoretical framework was introduced on flexibility within networks. This section gives a case description as well as introduces the control variables for the COV study. The two networks chosen for this study are two distinct entities that share much in common. In this chapter the historical development as well as the characteristics of both the TSI and the TEN-T will be shown. This introduces the main common variables that allow a covariational analysis to be made between the two networks. The most striking difference between the TSI and the TEN-T is in their organizational approach from a network governance perspective. The TEN-T, as the older of the two networks, is structured as an NAO with a central organization that oversees the running of the network. The TSI has taken a different approach, one that is more reminiscent of the largest network in the region, the Visegrad Four cooperation, which is an informal network between four Central European countries. First the history of both the TEN-T and the TSI are covered briefly followed by the introduction of the key common variables between the two networks, these being infrastructure focus, EU financial input and regional integration focus. The reason for these common variables being chosen are due to their ability to affect the dependent variable, flexibility.

The History of both Networks

The TEN-T

To better understand the variables chosen for the COV analysis it is necessary to understand the origins of both networks beginning with the TEN-T and then the TSI. Before the Trans-European Networks, Europe was portrayed as a ‘continent of missing links’ and the European Commission released many white papers in the mid-1980s proclaiming the need for such a project (Schipper & Van der vleuten, 2008). In 1994 the White Paper on Growth, Competitiveness and Employment, was released in which the Commission emphasized the fundamental importance of the creation of the trans-European Networks (TENs) to the internal market. One of the largest arguments for the TENs was its potential for job creation, not just through the building and maintenance of projects themselves but also the growth that will come with easier trade throughout the region. In Chapter 3 titled ‘Trans-European networks’ the second paragraph gives the original idea of the TEN-T which remains with us till this day.

“The establishment of networks of the highest quality throughout the whole Union and beyond its frontiers is a priority task. It will require a joint, massive and sustained effort on the part of the authorities at all levels and of private operators. The potential to create jobs is substantial, both directly in the short term by initiating the large-scale projects proposed and through the beneficial effect in the long term on production conditions in Europe.” (European Commission, 1994 p.89)

In 1994, the Corfu and Essen European Councils approved 14 priority projects for transport and 10 priority projects for the energy sector (European Council, 1994).

In 1996 on the 23rd of July Decision No 1692/96/EC on community guidelines for the development of the trans-European transport network set out the general parameters for the overall network. In this decision the characteristics of particular networks divided by modes of transport was put into place. It also started the identification of eligible projects based on common interest of the EU member states. The EU also placed emphasis on more green modes of transport namely rail.

The 2004 and 2007 enlargements, along with serious delays and financing problems led the first revision of TEN-T guidelines. The list of priority projects increased to 30 all these projects had to follow EU environmental guidelines along with legislation. They also appointed ‘European coordinators’ for particularly important projects in 2005 which would mediate across all involved sectors of society, which can be viewed as the beginning of the centralization of the TEN-T network. A Trans-European Transport Network Executive Agency (TEN-T EA) was set up in October 2006, which was tasked with the technical and financial preparation and monitoring of decisions on projects managed by the Commission leading to further centralization of the network (Debyser & Gouardères, 2021).

The TEN-T that exists today came after the 2013 revision. This revision lays out the current objective as being:

“The objective of the new EU transport infrastructure policy is to transform the existing patchwork of European roads, railways, inland waterways, airports, inland and maritime ports and rail/road terminals into an integrated network covering all Member States. The lack of a coherent transport infrastructure of this type constitutes a serious barrier to the smooth functioning of the internal market. The creation of this network requires the preparation and implementation of thousands of projects intended to eliminate existing bottlenecks, bridge missing links and improve interoperability between different modes of transport, as well as between regional and national

transport infrastructures. Moreover, among the priorities for the development of the TEN-T infrastructure is the application of innovative technological solutions, which have a vital role to play in the transformation of transport to make it accessible to all and create a safer, sustainable, low-carbon and energy-efficient system.”

(Debyser & Gouardères, 2021 pg.2)

This revision is the first time a dual-layer structure for EU transport routes has been introduced. The first is a core network to connect the main arteries of the EU which has the goal to be finished by 2030, and a comprehensive network that will connect all regions of the EU to the core network by 2050 (Debyser & Gouardères, 2021).

Along with the dual-layered structure, nine core network corridors each with a European Coordinator have been identified and appointed to facilitate

the implementation of the TEN-T core network by 2030. They should bring together public and private stakeholders and help join resources to construct the corridors (Pereira, 2019). The main EU agency that coordinates the TEN-T was created in 2014 in which the TEN-T EA was superseded by the Infrastructure and Networks Executive Agency (INEA) which as of the 1st of April is known as the European Climate, Infrastructure and Environment Executive Agency (CINEA) (INEA, 2021). The current network structure of the TEN-T can be seen mapped out in figure one.

Along with the dual-layered structure, nine core network corridors each with a European Coordinator have been identified and appointed to facilitate the implementation of the TEN-T core network by 2030. These corridors can be seen in figure two. They should bring together public and private stakeholders and help join resources to construct the corridors (Pereira, 2019). The main EU agency that coordinates the TEN-T was created in 2014 in which the TEN-T EA was superseded by the Infrastructure and Networks Executive Agency (INEA) which as of the 1st of

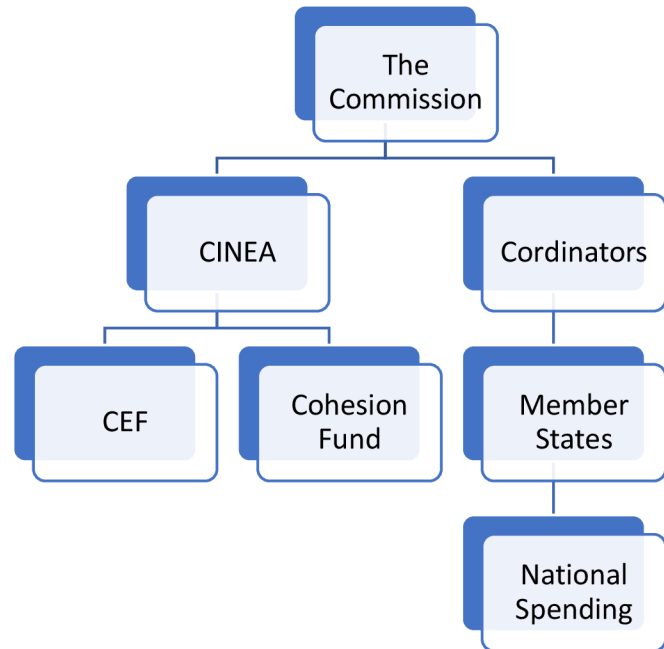


Figure 1 The hierarchical structure of the TEN-T

April is known as the European Climate, Infrastructure and Environment Executive Agency (CINEA) (INEA, 2021).

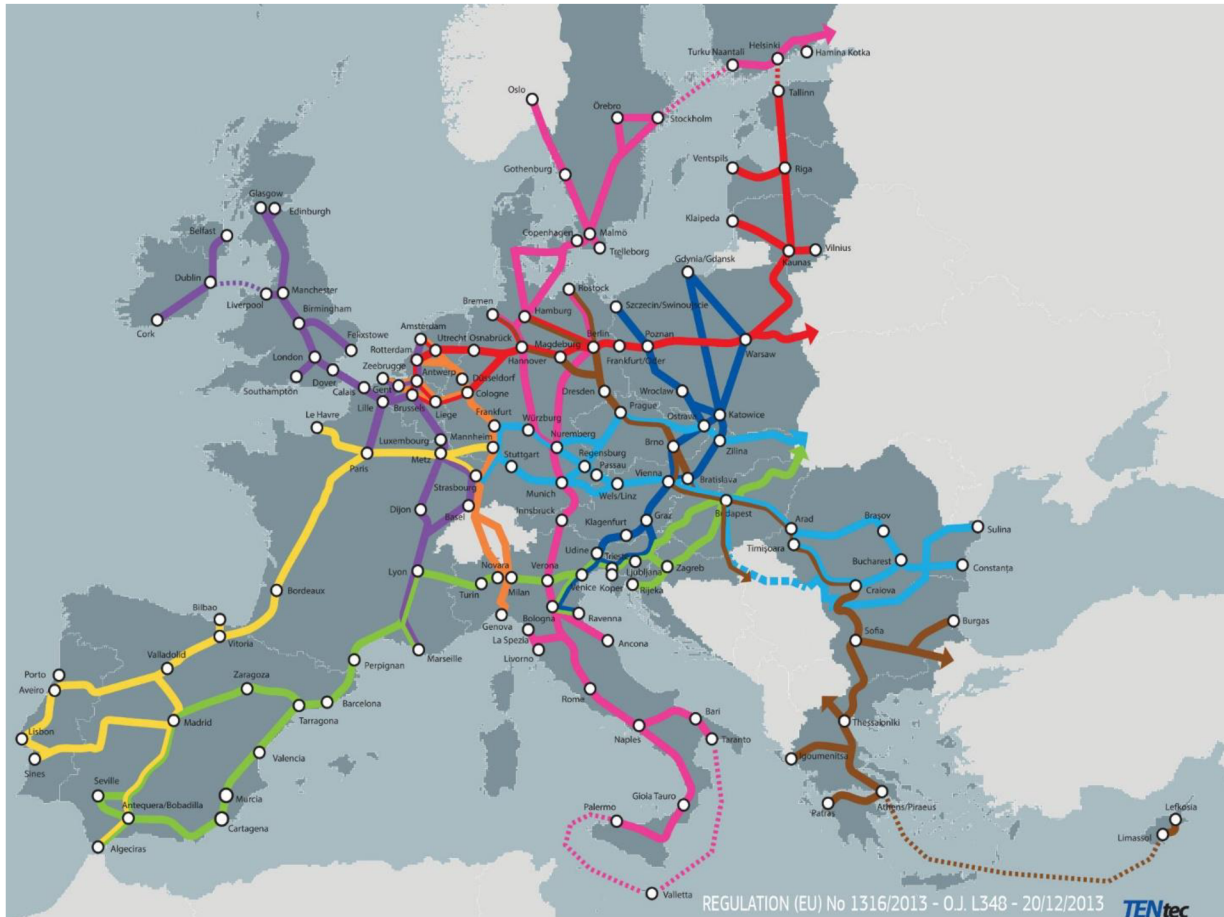


Figure 2 A map of the current nine corridors of the TEN-T (Pereira, 2019)

The TSI

In the previous section the older of the two networks historical developments have been shown within this section the more recent history and developments of the TSI will be shown. In 2014 a think tank from the United States called the Atlantic Council released a report entitled ‘Completing Europe’. This report brought to light that although politically the region of Central Eastern Europe has been brought into the Western World the integration is incomplete when it comes to infrastructure in the region. The legacy of the Soviet Union and its lack of regional integration when it comes to integration of the region was largely still in place even after politically Central Europe has joined the west. The paper recommends that North-South connections within the region should also be invested as current priority infrastructure connected the East to the West (Atlantic Council, 2014). This paper is given as the official catalyst for two heads of state in the region President Kolinda Grabar-Kitarović of Croatia and President Andrzej Duda of Poland to launch the initiative to rectify the problems identified in the report across the region (Three Seas Initiative, 2021b).

The first summit of heads of state in the region was held in Dubrovnik in 2016. After each summit a declaration is published by the countries on what has been agreed upon throughout the format. The 2016 statement is the founding document of the TSI in which the countries “*endorse the Three Seas Initiative as an informal platform for securing political support and decisive action on specific cross-border and macro-regional projects of strategic importance to the States involved in energy, transportation, digital communication and economic sectors in Central and Eastern Europe*” (Three Seas Initiative, 2016). The TSI gained much publicity during the 2017 Warsaw summit in Poland due to the attendance of former US President Donald J. Trump. The declaration of 2017 reaffirms the previous 2016 declaration as well as established the TSI Business Forum as an economic aspect of the TSI as a whole (Three Seas Initiative, 2017).

The 2018 summit in Bucharest was an important milestone for the TSI. The TSI always mentioned the EU in its declarations and how its goals coincide with the EU's as well as the importance of EU funding and the TEN-T but hitherto the EU was not present at the summits. In 2018 E.U. Commission President Jean-Claude Juncker, German Foreign Minister Heiko Maas, and U.S. Secretary of Energy Rick Perry attended giving the TSI tacit approval from

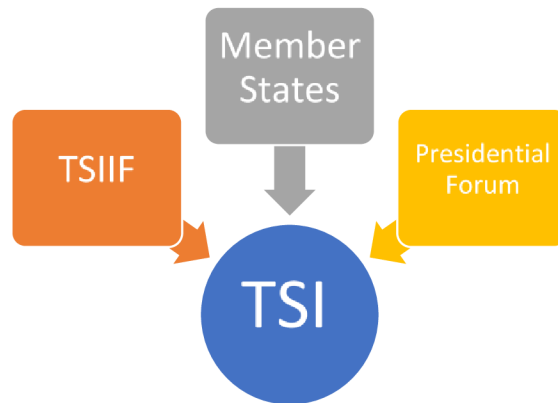


Figure 3 The lack of structure within the TSI

the EU as well as the region's most important trading partner Germany. Germany, the United States and the EU become official partners of the TSI. The Bucharest summit of 2018 was also where the first priority projects of the TSI were decided upon and held the first business forum. This was also the summit in which the letter of intent for the establishment of a TSI Investment Fund was signed. There was also the first informal meeting of TSI regions in Rzeszów which while not organized by the TSI was acknowledged by them. The 2018 summit is where the TSI became more than informal yearly meetings of heads of state (Three Seas Initiative, 2018). The current lack of network structure within the TSI can be seen in figure three.

The 2019 summit was held in Ljubljana Slovenia. The summit reaffirmed what was decided in previous summits as well as introduced yearly progress reports which will provide periodic evaluation of the implementation of the Three Seas projects (Three Seas Initiative, 2019). The 2020 summit was held virtually from Tallinn, due to the COVID-19 pandemic. The President of Estonia Kersti Kaljulaid hosted in person the President of Poland Andrzej Duda and the President of Bulgaria Rumen Radev the rest attended virtually. Estonia had the goal of strengthening the digital aspect of the cooperation, stressing the need for 'Smart Connectivity' in the TSI. They also introduced the website for the TSI which serves as a public repository list of the priority projects along with the status of their implementation. The Investment Fund grew with nine of the 12 countries joining, Czechia, Austria and Slovakia have yet to join. The Estonian summit also held the first Three Seas Foreign Ministers' meeting and pushed for more governmental cooperation in the initiative, as well as established a logo and a social media presence. The last summit was held

in 2021 in Sofia Bulgaria and the next one will be held in Latvia. Figure four shows the current states of the TSI.

The historical developments of both networks show that they have quite some similarities with each other. Within the following section the similarities and differences will be identified along with the variables for the COV analysis.

Similarities and Difference between the TSI and TEN-T

As the histories of the two networks have been laid it is important to analyze the control variables that can be established on which basis the co-variational analysis can be done. The control variables between the two networks are the member states that make up the networks, the source of funding for the transport projects of both networks, the regional integration and infrastructure focus of both

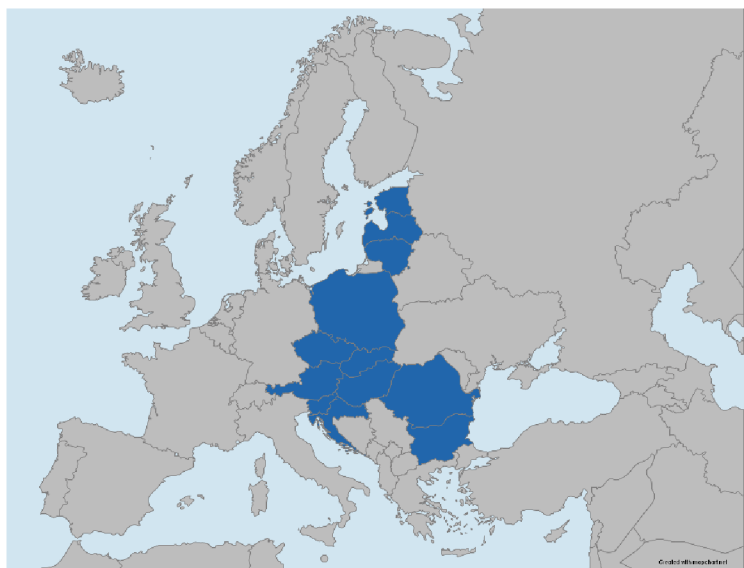


Figure 4 Countries currently members of the TSI

networks. The importance of these control variables is due to their ability to affect the dependent variable. Flexibility could be affected by different goals as different goals of the networks could have different needs of flexibility within the network governance type to achieve higher levels of network efficiency. By having the same goals, regional and infrastructure integration, the effect on flexibility is less. The funding of the network mainly by the EU eliminates the effect on flexibility due to different methods of fund procurement. As the TSI and the TEN-T often share projects that are funded through the same means through the EU, changes in optimal amounts of flexibility to theoretically procure more funds is reduced as well. The independent variable which differs between the two networks is the existence of an NAO which appears in the structure of the TEN-T but not in the TSI. In the next sections the variables are elaborated on.

Member states

The first similarity between the two networks is that they are EU member states. The importance of being within the same geographical region as it helps eliminate differences between the two case studies (Blatter & Haverland, 2012). The TEN-T as a European Union project is developed for the entirety of the European Union in order to complete the single market by connecting the entirety of the EU with a group of projects called ‘the Core Network’ which is meant to be done by 2030. The TSI is made up of twelve member states which make up the post-socialist countries of the European Union as well as Austria with the express goal to develop and enhance intra-regional and cross-border cooperation and connectivity in the region (Three Seas Initiative, 2021b). Both networks are made of sovereign states that are members of the EEA.

Funding

The previous control variable was connected to the location of the member states as all part of Europe. The following control variable is related to funding as differences in funding procurement can change the optimal level of flexibility within either network having a large part of funding from the EU lessens the deviation of this variable. EU funding has an effect on network formation by promoting cooperation between nodes in a network (Defazio et al., 2009). The TSI and the TEN-T projects within the TSI countries are primarily funded by the European Union. The TEN-T has its legal basis in the treaties of the EU. The EU funds infrastructure projects through the Connecting Europe Facility (CEF). This fund is for ‘strategic investment in transport, energy and digital infrastructure’ the fund is primarily used in implementing the TEN-T Core Network (Bormans, 2019). The TEN-T network also has a large amount of member state funding within their own borders, as EU funding seldom covers the full funding of projects. The TSI also receives most of the funding for its projects through the EU. Of the proposed financing of all projects the CEF is expected to cover 26%, national funding 24%, and other EU funding 15%. The reason for this is that the member states of the TSI often put their sections of the TEN-T core network as their priority projects in the TSI. The 15% of other EU funding is due to most of the members of the TSI belonging to member states whose GNI per inhabitant is less than 90% of the EU average which give them access to the EU Cohesion Fund which aims to reduce economic and social disparities and promote sustainable development (European Commission, 2021). This makes funds from the EU highly important for both networks in their infrastructure policy.

Regional Integration and Transport Focus

The previous control variable affected flexibility by altering the ideal amount of flexibility required to receive funding the following control variable is connected to goals which if divergent would affect the ideal amount of flexibility in order to achieve these goals. There is a connection in network governance theory between the best suited network type and goal consensus. A high goal consensus would lean towards a participatory governed network while a moderately high goal consensus would suggest an NAO being a better fit (Provan & Kenis, 2007). Both the TEN-T and the TSI at its core have a regional integration focus. The current legislation that is the basis of the TEN-T states in Article 4 of Regulation No 1315/2013:

Objectives of the trans-European transport network

The trans-European transport network shall strengthen the social, economic and territorial cohesion of the Union and contribute to the creation of a single European transport area which is efficient and sustainable, increases the benefits for its users and supports inclusive growth. It shall demonstrate European added value by contributing to the objectives laid down in the following four categories:

(a) cohesion through:

- (i) accessibility and connectivity of all regions of the Union, including remote, outermost, insular, peripheral and mountainous regions, as well as sparsely populated areas;*
- (ii) reduction of infrastructure quality gaps between Member States;*
- (iii) for both passenger and freight traffic, interconnection between transport infrastructure for, on the one hand, long-distance traffic and, on the other, regional and local traffic;*
- (iv) a transport infrastructure that reflects the specific situations in different parts of the Union and provides for a balanced coverage of all European regions;*

(Regulation (EU) No 1315/2013 of the European Parliament and of the Council of 11 December 2013 on Union Guidelines for the Development of the Trans-European Transport Network and Repealing Decision No 661/2010/EU Text with EEA Relevance, 2013)

At the heart of the legislation we see that regional cohesion between member states is central to the network. In the TSI the foundation of the network in the Dubrovnik summit of 2016 in the first paragraph write “*Having recognized the importance of connecting Central and Eastern European economies and infrastructure from North to South, in order to complete the single European market, given that so far, most efforts served to connect Europe’s East and West (...)*” (Three Seas Initiative, 2016). The completion of the single market with the use of infrastructure between the member states is at the heart of the TSI which has been reaffirmed in every joint statement since Dubrovnik. The focus on regional cohesion is at the center of both the TSI and the TEN-T.

Network Administrative Organization

The previous sections were connected to control variables the following section introduces the independent variable which is the variable being studied for how its presence and its lack affect flexibility. This independent variable is the NAO. The largest difference between the TSI and the TEN-T is the existence of a NAO in the TEN-T and the lack thereof in the TSI. The structure of the TEN-T is centered around the Commission which delegates its authority to DG MOVE, CINEA and the Core Network Coordinators. The current TEN-T has been formed by Regulation (EU) No 1315/2013 giving the basis of the network legal status as part of EU law. Within the regulation Chapter IV between Articles 42 and Articles 48. The coordinators are tasked with the coordination and implementation of their specific corridor, they coordinate through a *corridor forum* which each member state along the corridor must be a part of. This corridor forum negotiates modal integration, interoperability, and the coordinated development of infrastructure in cross-border sections. The nine coordinators work with the commission and CINEA (Regulation (EU) No 1315/2013). As we see the TEN-T is structured in a hierarchical fashion with the coordinators, CINEA and ultimately the Commission acting as a NAO.

On the other hand, the TSI has no hierarchical organization to speak of. The organization of the TSI is focused around the Summits which is organized in one of the member states. Each year the member state who is hosting the summit takes on a coordinating role when organizing the summit and can use the opportunity to push for one of their more preferred policies they would like to see in the initiative. The organization of the TSI is taken up by Presidential Sherpas as the network is primarily focused around a presidential summit. When negotiations between governments are conducted each government has its contact points in their Ministry of Foreign Affairs. While the country organizing the summit plays a more coordinating role in a particular

year, there is no official hierarchy within the TSI as well as no contact point. The TSI has no NAO nor can it be viewed as a lead organization making it an example of a participatory governed network.

Variables

In the previous sections the variables for the COV analysis have been introduced. In the following section the variables will be presented as a whole. Table one shows the traits of both the TSI and the TEN-T. As we can see the TSI and TEN-T while two different entities have very similar goals and means of reaching them. Common variables between the two are the geographical region of the two initiatives which are both in Europe and within the EEA, infrastructure focused, EU financial input and a regional integration focus. The differences lie in the choice of network structure of the organization of funds, as well as oversight. The TSI has a fund is controlled by a private investment firm Amber Infrastructure Group who oversees. While an interesting and important phenomenon of the TSI the fund is not estimated to contribute more than eight per cent of the total spending making it quite insignificant in this regard. The scale of the funds is much larger in the EU, reaching over EUR 24 billion, while the TSIIF is currently discussing the US increasing the fund to 2 billion. The oversight of the projects of the TSI is not as clearly specified as the TEN-T and is largely up to the member states while the TEN-T has a long institutional background and is not accountable to any government but to the Commission itself, and its budget is agreed upon by the EP and EC along with the MFF every seven years. The TSI shares many of its infrastructure priority projects with the TEN-T which therefore put them under EU and CINEA supervision but also receive funds from them. As the thesis is viewing how stability and flexibility manifest within the network structure, the size of funds is not a variable. The most important aspects of what is researched have to do with networking to which the difference between the existence of an NAO and lack of is the most important independent variable. The dependent variable, flexibility, is important to study within the context of regional and infrastructure development due to the nature of creating infrastructure which takes many years and is very costly. As European countries interconnect their infrastructure and strategize on ways to conduct these networks, flexibility and stability within these networks can affect network efficiency. By studying flexibility within the TEN-T and the TSI infrastructure networks can better plan how to organize cooperation amongst themselves in order to maximize the efficiency of their cooperation. In the following section the methodology of the study is shown and how the variables are compared with

each other to show the effect on flexibility that the presence and lack of an NAO has on an international infrastructure network.

	TSI	TEN-T
Structure	-Presidential Forum (Participant-Governed)	-The Commission - EU Agency (CINEA) -Core Network Coordinators (NAO)
Funding	-CEF -Cohesion Funds -Member States -TSIIF	-EU Cohesion Fund -CEF -Member States
Oversight	-Member States -EU (when project coincides with the TEN-T) -Investors (Through TSIIF)	-European Commission -EU Agency (CINEA) -Member States -Local partners

Table 1 Comparison of key aspects of the TSI and TEN-T

Methodology

The previous section has described the cases that are analyzed within the study. The following section shows the methodology used to study the topic of flexibility and stability within these network organizations. As the theoretical framework shows according to the theory put forward by Provan & Kenis (2007) there is a clear correlation between the centralization of a network and the stability a network has. This theory can be tested within a real-world context by looking at two network organizations that are similar enough in all aspects, within the context of network organization, except for the existence of a centralized NAO. Within the EU there is the TEN-T which is focused on infrastructure cohesion within the EU. Recently within Central Eastern Europe there has also come a regional initiative which is focused on infrastructure cohesion within the eastern portion of the EU. The main difference from a network governance perspective is that the TEN-T is under the Commission while the TSI has no central organization. These similarities along with this crucial difference allows the theory on centralization affecting stability to be tested. Within the methodology co-variational analysis (COV) is used. Data collection has been done through semi-structured interviews and analyzed using thematic content analysis (TCA).

Co-Variational Analysis (COV)

In order to see that a Network Administrative Organization affects Network Organization, a small-N case study was conducted, and co-variational analysis (COV) has been used. Small-N case studies are conducted to generalize across a population of similar cases and focused on a single phenomenon or outcome (Verweij & Gerrits, 2013). COV is a widely used approach within small-N case studies due to the approach presenting empirical evidence of the existence of co-variation between an independent variable X and a dependent variable Y to infer causality (Verweij & Gerrits, 2013). In the case study of the TSI and the TEN-T the existence of an NAO (X) is the independent variable while flexibility (Y) is the dependent variable. This is because flexibility as defined in network organizational research is dependent on the centralization of the network.

As the TSI and TEN-T are similar in goal and focus as well as regionally in the same area, the main difference between the two organizations from a network organizational perspective is the centralization of authority in the NAO (in the case of the TEN-T CINEA, DG MOVE and ultimately the Commission) while the TSI is loosely organized within yearly presidential forum. This means that the significant independent variable is the centralized organization, which would

have an impact on the dependent variable, flexibility within an organization. This would be in line with the theory presented by Provan & Kenis (2007) who state that “*Networks face a tension between the need for flexibility and the need for stability. In shared-governance networks, the tension will favour flexibility; in NAO- and lead organization- governed networks, the tension will favour stability.*” (Provan & Kenis, 2007 pg.245)

Stability and flexibility within the theory given by Provan & Kenis (2007) are opposed to one another and can be viewed through the lens of a spectrum. Meaning that if an organization is more centralized it has higher stability but less flexibility and vice versa. Figure five shows the relationship between stability, flexibility and centralization.

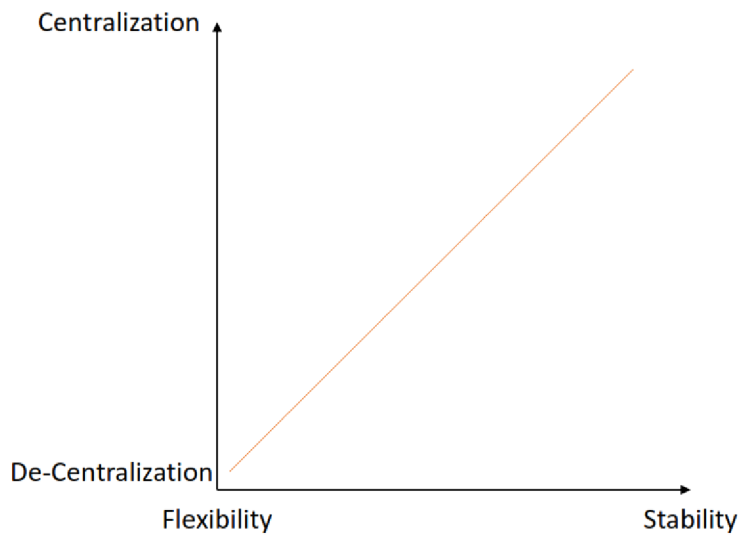


Figure 5 Visualization of the relationship between Flexibility and Centralization as theorized by Provan & Kenis (2007)

Powell (1990) when faced with the question why entities would choose to create a network, they give the argument that one of the key reasons is the dynamism that networks offer, how quickly they can react to changes. They call this the ‘*demand for speed*’ which Provan & Kenis (2007) claim is flexibility. This is the most characteristic of the TSI while NAO’s, being the most like bureaucratic network organizations with hierarchical structures, being the least flexible. In the chart above we can see mapped out the theory on the play-off between centralization of a network

organization and the flexibility of an organization. By focusing on the dynamism of these two networks and how quickly and easily they can respond to change it can be determined where they fall on this chart and make a conclusion that one is more flexible than the other.

As the TEN-T and TSI have existed side by side since 2016 (the establishment of the TSI) a cross-sectional comparison is conducted as they geographically encompass the same region, Europe, and both consist of EEA members (apart from Switzerland, which takes part in the TEN-T but is not a member of the EEA). Cross-sectional comparisons are comparisons across cases at the same time and exploiting spatial variation. It is best suited for analyzing the TSI and the TEN-T as they are both within the continent of Europe and the countries of the TSI are all members of the TEN-T. In table two the control variables which both networks have in common are shown. The control variables have been selected due to their importance to the formation of the networks as well as the connection to the dependent variable. The basis for the infrastructure focus and regional integration focus are due to the explicit reasons for the formation of both networks within the founding documents of the TSI and the TEN-T. The importance to the formation of the network has been established by their appearance within the foundational documents of both networks, infrastructure and regional integration are the stated goals of both the TEN-T and the TSI within the legal texts of the TEN-T as well as the summit declarations of the TSI. These two focuses also are connected to the dependent variable through the amount of flexibility needed to achieve the aims of large-scale regional infrastructure projects between EU countries. The dependent variable of EU financial input is based on the amount of EU contribution within the priority projects of the TEN-T as well as the TSI. This control variable has been determined by looking into the financing of the projects and seeing what role EU funds play within the projects. This control variable is connected to the dependent variable as the nature of infrastructure projects changes depending on the means they are being funded. EU funding requires a high level of transparency and reporting to the commission as well as relevant agencies if the means of funding infrastructure projects was different within the TEN-T and the TSI the level of cooperation between member states could be less and the need for flexibility could be affected. On these grounds along with the spatial and existence side by side since 2016 of both projects makes the two networks similar enough to compare in a small-N COV study (Blatter & Haverland, 2012). Table two shows how the variables compare to each other and how they affect the networks. In the next segment the way in which the data was collected and analyzed is explained.

Variable	Type	TSI	TEN-T
Infrastructure Focus	Control Variable	High	High
EU Financial Input	Control Variable	High	High
Regional Integration Focus	Control Variable	High	High
Network Administrative Organization	Independent Variable	No	Yes
Flexibility	Dependent Variable	High	Low

Table 2 Key Variables of case study networks for COV analysis

Semi-Structured Interviews

In the previous segment the variables and the way they are analyzed are shown. In the following segment the data collection and the way in which the data is analyzed is presented. Data was collected through ten semi-structured interviews with civil servants from the TSI region. The central question I wish to answer is how does the network organization of TSI and TEN-T affect their flexibility? These questions are explored in the study by interviewing civil servants of TSI countries. In these semi-structured interviews, the following questions were asked:

- What has been your experience working with the TEN-T and the TSI?
- How difficult would it be to reform an aspect of either organization?

The interviews were then transcribed and analyzed for common themes on flexibility within each organization. The method used to analyze the transcripts was thematic content analysis (TCA) to identify the main themes, present within the interviews. The basis of TCA is to identify the main themes within a set of data through the analysis of said data (Vaismoradi et al., 2013). The researcher has gone over the transcripts and has identified common themes within the transcripts by analyzing them thoroughly on which basis the themes and presence of flexibility within the TEN-T and the TSI is determined. The criteria for being a theme is when the connection of the experience or observation of the respondent with the TSI and/or TEN-T corresponds with a theme

within network governance theory. The transcripts are then analyzed within context of the themes until the themes correspond with the interviews (Anderson, 2007).

Each meeting with TSI officials was from different offices. As the TSI is mainly based around presidential forums, it was the presidential offices that had advisors who work within the presidential office on foreign cooperation. Some countries such as Poland have central offices in the Ministry of Foreign affairs which are made to deal with the TSI. Some countries have points in their Ministry of Foreign Affairs, while others have experts in the Ministry of Infrastructure.

By discussing with civil servants who are directly involved with the negotiations within each network, it was possible to contrast the two network organizations and analyze whether the TEN-T with its central organization is less flexible than the TSI, which is participant organized. Due to the decentralized nature of the TSI without a central structure civil servants directly involved with it could come from many different ministries within the countries. The organization and negotiation within the TSI are coordinated by Presidential Sherpas (a personal representative of a head of state or government that prepares for an international summit) but due the organization of the Sofia summit, only one interview was able to be conducted with a Sherpa. Within governments the TSI is mostly delegated to the Ministry of Infrastructure (MI) and Foreign Affairs (MFA). In some countries the same office that works with the TSI in the ministry of infrastructure work with the TEN-T in others they are separate offices. In the TEN-T it is highly specialized within the ministry of infrastructure. Information about the respondents can be found in table 3.

The inter-ministerial nature of the TSI and the single ministerial nature of the TEN-T further points to the fact that the TSI is a much more flexible organization than the TEN-T which is in line with the findings of the thesis.

The two questions asked would direct the interviewee towards speaking about the dynamism of the network(s) that they participate in. As a semi-structured interview, the interviewer would encourage and ask the interviewee to expand on certain aspects or go more in depth into aspects of each network they considered to be most important. The interviews were then transcribed and analyzed using TCA by the researcher for themes that show flexibility in either network allowing the researcher to see which network was more flexible. In the following section the results of the data collection and analysis are shown with the main themes that have been seen throughout the transcripts.

Country	Office	TSI and/or TEN-T
Respondent 1	MFA	TSI
Respondent 2	Presidential Office	TSI
Respondent 3	MI	TEN-T
Respondent 4	MFA	TSI
Respondent 5	MI	TEN-T
Respondent 6	MI	TEN-T/TSI
Respondent 7	MI	TEN-T/TSI
Respondent 8	MFA	TSI
Respondent 9	MI	TEN-T
Respondent 10	MI	TEN-T

Table 3 Information about Interviewees

Results

The previous section has gone over the methodology used within the study. The section below presents the results of the ten interviews conducted and analyzed using TCA. Within the study, the theory of network governance on how the structure of a network affects its flexibility has been reflected within the answers given by the respondents. The TEN-T as a NAO is less flexible than the TSI, which is organized as a participant-governed network. To show how the theory is reflected in the interviews with government officials from the TSI countries, below are the common themes found between them about the TEN-T and the TSI. The themes identified are experimentation, centralization, confusion and bureaucracy. These themes have been present in network governance theory and have been identified within the transcripts of the participants. The themes most identified with the TSI were experimentation and confusion both traits of a flexible network within network governance theory. The themes most identified with the TEN-T were centralization and bureaucracy two traits of a less flexible network. In the sections below introduces the main themes in the context of the TEN-T specifically and then the TSI, the following section explores how the themes manifest themselves in either network.

Participatory Governed TSI as Compared to the NAO TEN-T

The main conclusion from the interviews is that the TSI is more flexible than the TEN-T and that the way the network has been organized does affect this variable. The TSI through a lack of central organization allows for very dynamic and quick changes to the nature of the cooperation each year. This has been identified through the experimentation theme. The TSI through its fast changes and its constant reformation also leads to a theme of confusion where there is indecision and inconsistency in the cooperation. The TEN-T through its network structure is unable to change very quickly and requires the negotiations and approval of many actors, the 27 member states, as well as the Commission and the Parliament. This led to the themes best describing the TEN-T as centralization which would be the leading role the Commission plays as an NAO and the negative theme of bureaucracy were the respondents spoke about long somewhat difficult processes in order to change things within the network.

Experimentation

One common theme that could be found was that one of the assets of the TSI is its experimental value. The TSI has been innovating within its cooperation. One example of this would be the TSI investment fund, a private fund based in Luxemburg that private investors can invest in.

This investment fund can use these private investments to invest in regional projects. This ability to innovate in part comes from the participatory governed nature of the initiative that allows members to feel as if the cooperation is not jeopardized by such a high-risk endeavor. This cannot be said of the TEN-T which comes from the compromise of a multitude of member states with legal basis and concrete goals. The TEN-T due in part to its hierarchical structure cannot invest in such high-risk projects.

One of the main benefits of the flexibility of the TSI would be the ability to experiment. One interlocutor put special emphasis giving the TSIIF as an example, the TEN-T cannot experiment with a private investment fund because the implications of such an EU project failing would be catastrophic for the EU, but for the TSI if it does not work the network can easily move past it and think of something else or amend. This

As an example, within the TSI, there is this initiative to have a fund and to basically see how it goes. Why not? Let's make an experiment. If we do not succeed, nothing will happen. We know the world will not fall apart. But if you make such an experiment, within the TEN-T, then actually the world could fall apart. You cannot, let us say, allocate all out of TEN-T budgets to, some experimental facility, then it might become a bit too risky for the whole cooperation.

-Respondent 7

This sentiment shows the dilemma faced by participatory networks and the decision of changing to a more formal NAO or lead organization structure or remaining as a participatory organization. If the TSI was as hierarchical as the TEN-T a failure of its goals would be the failure of the entire format, while in a participatory governed network such a failure can much more easily be worked around.

Centralization

Centralization as a theme concerns the existence of a top-down structure within the network and the role that top-down structure plays. The TEN-T has strong centralization, while member states may coordinate with one another it is bilateral talks with the Commission and DG MOVE which is the most important within the network. Within the TSI when asked a question if a central office or secretary of some kind would be useful to the TSI the respondents answered differently from each country which correspond with their countries views on the TSI. This can point further to the fact that the type of network organization is viewed by the governments themselves as

influencing network outcomes. Two of the respondents were of the personal opinion that it would help coordination between the different countries and contact points in each member country, as currently it is difficult to know where to contact when wanting to discuss cooperation with another member.

Other states were not as interested in such an idea for different reasons. Some believe that the cooperation in its current form is adequate and used the example of the Visegrad Group cooperation as an example. Another respondent believed the cooperation does not need a secretariat and that its current form is adequate. The question if the TSI will transform into a NAO or stay a participant run organization will depend on what the member states wish to achieve with the initiative but currently there is very little centralization within the TSI.

[The TSI] would most definitely benefit from a small central office and maybe even not an organization, but just a small administrative body that would mainly take care of the communication, public communication, the branding side (...)

-Respondent 4

Confusion and Bureaucracy

Two negative themes emerged from discussions with those who work with the TEN-T and the TSI although the negative themes were split between the TSI and the TEN-T. The TSI was more connected with confusion and the TEN-T with more bureaucracy.

Confusion is a trait that can be found throughout the TSI. When speaking with those countries which have created special positions for the TSI within their MFAs confusion often came up when discussing whether there should be more centralization. These civil servants due to having to work more directly with the TSI shared the complaint that the TSI suffers from a lack of uniformity within the cooperation. While this ability for member states to choose how many resources to allocate towards this network can be viewed positively, it can also lead to participants

Usually, a department within the Ministry of Foreign Affairs, European department or economic department or some other departments, they support their national coordinator. I am not sure if in all cases a special unit was created. Probably not, just there is a desk officer or a group of people that are somehow involved in the TSI.

-Respondent 1

not being able to know who to speak with concerning networking issues. This confusion in part due to the inherent flexibility of participatory governed networks was also a driver for more centralization within these civil servants.

The civil servants who deal with the TSI were never certain who exactly to speak to on matters of cooperation, showing that due to the lack of hierarchy or a central organization a civil servant had to figure out who to speak to on their own.

The TEN-T on the other hand is considered to be the much more bureaucratic network. Those civil servants knew who to call when there was a need to cooperate, they knew that each member state had their counterpart and, they knew how to contact DG MOVE or the corridor coordinator. But when describing the TEN-T there was mention of the bureaucracy and that decision making is difficult. When asked about amendments to the TEN-T the amendment process was explained as negotiations between the Commission and the member states along with many more partners and criteria having to be met. When speaking about the amendment of adding Via Carpatia, one of the original projects of the TSI, to the TEN-T two respondents closely dealing with the Via Carpatia TEN-T said that it is a long process. One respondent was optimistic about having the Via Carpatia added but the other interlocutor explained the difficulties involved with securing funding and not being able to meet the strict deadlines of the TEN-T 2030 core network. In conclusion while confusion in communication and function of the TEN-T is not found amongst the civil servants dealing with it, it

Sometimes it [the EU] is a bit bureaucratic when it comes to paperwork, when it comes to reporting, when it comes to, I do not know, biannual or annual reports or monitoring data sets or whatever. So, this is quite a workload of course.

-Respondent 9

is viewed as bureaucratic and at times to an unnecessary extent.

The negative traits inherent to one or the other organization in part are fueled by the network governance approach their network has. The TSI due to its flexibility causes confusion when information is not uniform nor centered in a specific location. The TEN-T while not causing confusion is considered highly bureaucratic due to all the interests it must coordinate in order to come to a conclusion.

TEN-T

As the themes have been introduced and the way they manifest themselves within the networks the next section will describe the themes within the TEN-T and then the TSI more thoroughly. Interviews with respondents familiar with the TEN-T had many interesting similarities. Many interviews with officials dealing with the TEN-T started by mentioning the Regulation (EU)

No 1315/2013 of the European Parliament and of the Council of 11 December 2013 on Union guidelines for the development of the trans-European transport network. This was always referred to as the foundation of all activities surrounding the TEN-T and when asked about change, they mention this document as well. This points towards the centralized and bureaucratic theme as best describing the TEN-T due to ridged legal foundation of the network. Within the regulation that is mentioned by each TEN-T dealing official, there is one article that deals with amendments to the TEN-T. In Article 54. Currently, the review process of the TEN-T is underway, which many of the respondents also alluded to. When asked about the process, depending on the country from which they were from, the respondents said that they are attempting to reform the TEN-T and that it is a long process with many steps and consultations which is another example of the bureaucratic theme.

Some interlocutors spoken with are attempting to add a new road to the TEN-T the Via Carpatia. One of the respondents work in a country through which part of the road will go through, when asked about the amendment of the TEN-T were skeptical about the chance of a new addition to the TEN-T along the more optimistic countries suggestions due to the number of criteria it would have to achieve, such as securement of funds as well as the approval of the Commission. Another common statement about the TEN-T when asked about reaching the goal set by the TEN-T to finish the core network by 2030 all respondents were skeptical that it could be achieved and that delays, or amendments will have to be made.

The negotiations will be in a traditional format in that it will be a new regulation.

This is the only way to do it. The main tension between the European Commission and the member states will be how extensive the revision should be.

-Respondent 7

This is the first revision of the TEN-T since the 2013 regulation and will require a new EU regulation on the TEN-T which includes the Commission, the Council and the European Parliament's approval. From the interviews with stakeholders, the TEN-T is not considered flexible and with those stakeholders who have worked with both, much less flexible than the TSI. The common advantages of the TEN-T are that it is forming an

[The Core network 2030 Schedule] is very strict and it is a problem for us. It is certain that many of our sections, on the one hand, the rail sections and on the other hand road sections will not be modernized or built up to 2030. It's a very tough schedule for us.

-Respondent 5

EU wide network of infrastructure that will lead to cohesion and deeper economic integration of the EU. The view that it is a bureaucratic is shared by the most successful country within the region regarding meeting the TEN-T as well as the least successful regarding the TEN-T. Although complaints of the bureaucracy were common the respondents did have a positive outlook and considered the TEN-T as an advantage to their member states as well as to the EU as a whole. Although member states wish to amend the TEN-T there was no questioning the necessity of centralization of the network and that this centralization is the best way to compromise between the twenty-seven member states of the EU.

TSI

In the previous section the TEN-T along with its central themes, centralization and bureaucracy have been presented. Within the following section the central themes of the TSI, experimentation and confusion will be presented within the context of the TSI. Interviews with respondents familiar with the TSI also shared many similarities in their views on flexibility within the network. What was a common theme amongst all ministers that work with the TSI is that there is no structure for what a TSI office or contact point should look like, what it should be primarily focused with and which level of the ministry it should be a part of. This is currently a debate within the TSI and is a manifestation of the theme of confusion as different member states have different views on how the network should develop. There are contact points through the Ministry of Foreign Affairs of each country, but there is no standard and therefore member countries interpret how this cooperation should look in their own way. This matches with the theme of confusion as some of the respondents did not always know where the contact point is.

Another common talking point throughout the TSI is that presidential Sherpas are the ones working on the TSI most diligently especially before a summit but the Presidential offices and the government in all these countries are not in the same institutions and it happens that the Presidential office comes to an agreement and the government attempt to implement this agreement in the way they see most fit. This has led to a more flexible arrangement that has some governments putting more effort and resources into the initiative while others have very little to do with the initiative and treat it more as another forum to discuss in the region of Central Europe.

When asked how the initiative is changed or amended, each respondent gave a very similar response. Countries bring projects they find to be important to themselves and the project is added to the initiative. This is a manifestation of the theme of experimentation as each member state can put more risky projects within the TSI as the format has less stringent checks on which projects are accepted.

Currently, there are 90 priority projects, in the summit in Bucharest where the priority projects were introduced there were 77. Each summit the member states meet and often add something new to the table, due to the unstructured nature of the format there is no need for the approval of third parties other than all twelve member states which leads to a very dynamic format. This falls within the theme of experimentation as the countries will often be willing to promote more experimental projects that have not been approved by

Every participating country decides themselves which project goes forward. So, every country is basically compiling their own list of priority projects, and they are put together in this central database, which can be seen on the website of the 3SI.

-Respondent 4

the TEN-T to be part of the core network. The respondents view of the TSI was dependent on their country's engagement with the TSI. When a country did have in depth engagement the respondents were much more positive towards the project and viewed it as a positive network within the region that brings much needed experimentation to the region which is quite behind their western counterparts. Within the TSI there is a difference of opinion on further centralization of the network depending on how devoted the country is to the network. This corresponds to the politization of centralization theme as one of the most contentious issues within the TSI is whether there should be more centralization or not with the creation of a central office. This theme of centralization is in

line with the theory of network governance and stems from what each country wishes to achieve through the TSI the more ambitious the goals, the larger the wish for more centralization. The respondents had different views on the network structure, currently there is a split within the network on how to address the theme of confusion within the network whether further centralization is needed or whether the current forum is enough. The respondents often did speak approvingly of the TSI's experimental aspects and as an informal network in which to meet and speak with one another on a regional level about connectivity and regional cohesion issues. A sentiment shared by all respondents when asked about the relationship the TSI should have to the TEN-T those who work with both said that the TSI at most should play a supportive and additional role to the TEN-T as the TEN-T is considered the more robust project.

Discussion

In the previous chapter the results have been presented. This chapter presents the discussion of the findings along with how the resulting themes correspond to the theory and the hypothesis. Then the significance of the findings of the study are presented followed by recommendations for the TSI to better make use of the inherent flexibility in the structure. Then will be presented limitations and complications which arose during the study. The significance of the findings are in how they can better inform policy makers in making decisions on how to form networks as well as the inherent strengths and weaknesses inherent in certain types of network structures.

Discussion of Findings

The findings of the study are that indeed network governance theory on flexibility does resonate with the participatory network of the TSI and the NAO of the TEN-T. While conducting the TCA analysis of the transcripts the main themes that have been identified connected to flexibility are experimentation, politization of centralization, confusion and bureaucracy. These themes found that the interviews relate to the theory of network governance and point towards the conclusion that the TSI is more flexible than the TEN-T. The theme of experimentation is much more visible within the TSI and lacking within the TEN-T. This is in line with the theory that participatory governed networks are more flexible and that NAOs are less stable. One of the key characteristics of flexibility is the ability to innovate and to react to changes within the environment such as the TSI. The TEN-T on the other hand is slow to react to change due to the difficult process needed to achieve such change. The question of centralization within the TSI is also within network governance theory as the theory argues that a decentralized participatory network will have internal debate over whether to transform into a more centralized NAO to increase network efficiency or to stay as a decentralized participant-governed network. The TSI as many interviewees have stated is currently going through this struggle while the TEN-T's NAO status can be viewed as being in part the result of such a struggle. One interviewee who attended the negotiations of the TEN-T in 2013 mentioned that before the negotiation and the centralization of the TEN-T, it was a very disjointed and an unproductive transport cooperation. This ineffectiveness was the drive to centralize the cooperation around central EU bodies (today CINEA and DG MOVE) and take a more NAO approach. This is in line with network governance theory which conclude that a participatory network when it becomes too large will become inefficient and either dissolve or have to become more structured as a lead organization or NAO in order to coordinate cooperation

amongst participants. The theme of confusion and bureaucracy corresponding to the TSI and the TEN-T are also in line with the theory on network governance they are connected within the theory to flexibility as a trait. The more flexible a network is the more confusing it becomes due to the more changes and the uneven goals and changing involvement within the network. This theme can be found in the respondents who work with the TSI thus some of their wishes for more centralization of the network. On the other hand, the TEN-T as an NAO with hierarchy and legal procedures has often been criticized as being very bureaucratic due to the amount of paperwork and consultations needed for the NAO to have enough information to run the network affairs efficiently. This is in line with the theory as NAOs resemble the hierarchical structures of formal organizations and therefore are more likely to share the stability that comes with such a structure but lack in the flexibility which less hierarchical approaches such as participatory networks have.

Significance of Research

The significance of this study is that it shows that in these cases flexibility as a trait is tied to the very way the network cooperation is formed. By the nature of the TEN-T being organized as an NAO flexibility along with its traits identified in network governance theory, is lessened and therefore stability increases. With the TSI due to it being organized as a participatory governed network has an abundance of flexibility but therefore lacks in stability. The implications are that networks can be designed to achieve certain traits to maximize network efficiency and better achieve their aims. As network cooperation between European member states grow a more thorough understanding of how the structure of networks inherently effects the traits and abilities of networks to function can better inform policy makers on how to structure networks to achieve desired traits corresponding to the goals of the network participants.

Recommendations

Throughout the data collection process as well as through analysis of the data collected certain recommendations came to mind. Several interviewees spoke of ways to improve the initiative as well. The recommendations are in the area of organization, project selection and coordination.

Organization

The TSI through its participatory network structure has a lack of organization. Without a central organization or a lead organization it suffers from confusion which stems from the flexibility inherent in the network governance type. This leads to a situation where one member

state might not have information on who to contact in certain countries concerning the initiative. This is present on the ministerial level as the presidential forum section of the initiative have people responsible in the office to deal with the initiative called Sherpas. If the initiative wishes to stay a participatory governed network but maximize efficiency within cooperation some standardization or central database would be helpful to avoid confusion when attempting to contact other countries in the TSI. This could be achieved the same way the TSI has achieved centralization of the priority project information on the website. With the website it would be possible to centralize contact details for each country that each member country could have access to.

Selection System

Many interviewees that worked with the TSI when asked about the priority project selection mentioned that in reality there was little consideration for selection and that each country added their personal projects to the TSI. This contrasts with the stated purpose of having the priority projects be of cross border relevance but also meeting certain standards. An example of this level of flexibility within the TSI having a negative effect on the network is the Danube – Oder – Elbe Connection the only priority project put forward by Czechia. This canal is quite unpopular within Czechia and is criticized by environmental groups as being detrimental to the environment. It is considered a personal project of the President of the Czech Republic Miloš Zeman. Due to the lack of real criteria the TSI has accepted this project as a priority project and now is synonymous with the unpopular canal in Czechia. Ways to improve the situation while keeping a participatory governed network structure would be a reevaluation of each project by experts of each country, vetting each project to be in the interest of all countries. Another option would be to create a way for civil society to play a role within the TSI and have Civil Society from across the region scrutinize the projects and what they entail in their field. This would allow another expert opinion to vet each project not only for its economic and political implications but also its social and environmental impact.

Coordination

The TSI as group of countries shares a geographical area within the EU and have needs that could be met by the EU. Coordination of the TSI within the EU within the area of Transport, Digital, and Energy policies could allow more attention to be given to the region as, in areas where they agree, they would have a 12 member state voting bloc. This would be a massive boon for the TSI as EU funding is already the largest single source of projected funding for the TSI.

Coordination on strategic topics within the EU already happens within four of the 12 countries, the V4, while consensus would not be easily reached amongst all 12 countries, where consensus existed the TSI countries would have strong leverage. The TSI is a helpful addition to the EU but cannot be a substitute for the EU and best works in conjunction with it. The TSI helps create a flexible space where the members of the TSI can meet and discuss infrastructure on a regional level which fills an important gap within the hierarchical EU TEN-T which, through its top-down nature does not sufficiently allow countries to coordinate regionally amongst themselves.

Limitations

The limitations of the study are connected to the limitations of small-N studies and COV as methodology as well as the limitations of interviews as the main source of data.

The interviews were self-reported data of those who have experience with working with the networks. This was limited by having many views from both networks from different countries which allowed the researcher to see patterns within the answers from different points of view within both networks. Another limitation was that the selection of candidates was not random which impacts external validity. Due the limited number of respondents to request for interviews as well as some member states not willing to be interviewed the research only covers those civil servants willing to speak. The research was unable to cover Czechia, Romania, Bulgaria, Slovenia and Hungary due to lack of willing interviewee participants. Due to having a small-N case study of two organizations, conclusions cannot be generalized past the specific cases described in the research (Bryman, 2012).

Complications

Certain complications arose while researching the topic of the TSI and the TEN-T. The first complication was the assumption that the same civil servants who work with the TSI work with the TEN-T. This is not the case due to the flexible nature of the TSI it is often the case that the civil servant tasked with working with the TSI does not have any connection to the TEN-T. The TEN-T is always within the Ministry of Infrastructure, but this is not always the case for the TSI. Another complication was the lack of willingness to speak. The TSI was having its 2021 presidential summit which is the most saturated time for the cooperation meaning many offices and civil servants did not accept being interviewed. Due to the researcher's Polish heritage and Poland being one of the most engaged members of the TSI interviews were easy to achieve, but with countries less involved in the initiative it was more difficult or not possible.

During an interview with a representative, there was mention of the TSI copying the projects of the TEN-T and ‘taking credit’ for the achievements of the TEN-T. It would be an interesting topic of research to see how EU projects might be coopted by countries or networks of countries. Another topic of interest that could be the basis of further study is the perceived role of Poland in the initiative, and how the legacy of Poland’s past attempts at ‘intermarium’ affects the current day initiative.

Conclusion

In conclusion the network organization of the TSI and TEN-T does affect their flexibility. In the study the question of the flexibility of NAOs and the flexibility of participatory governed networks has been investigated using a small-N COV case study with the TSI and the TEN-T networks. The method of gathering data used ten semi-structured interviews with civil servants.

The COV was based on three control variables, a dependent variable, and an independent variable. The control variables are infrastructure focus, EU financial input, and regional integration focus. These variables were chosen after analyzing the history and goals stated in the foundational documents of both networks as well as the financial input of the EU into the priority projects of both networks in the TSI region. The independent variable is the existence of an NAO in the TEN-T and the lack of one in the TSI. Based on Provan & Kenis's (2007) theory the existence of an NAO would suggest the network to be less flexible than the lack of one in for example a participatory governed network of which the TSI is an example of. This was the dependent variable of the study.

The data has been gathered by semi-structured interviews with civil servants from the region of the TSI who work with the TSI and/or the TEN-T. The data was then analyzed using the TCA method to find major themes throughout the interview regarding flexibility. The themes found are experimentation, centralization, confusion and bureaucracy. The themes of experimentation and confusion were more prevalent in the TSI and are indicative of flexibility within network governance. The TEN-T on the other hand was described more using the themes of centralization and bureaucracy which are much more indicative of a network with little flexibility. Mostly these civil servants worked in the MI or MFA of each country as well as the presidential offices. The results of the data show that the TSI is more flexible than the TEN-T due the presence of more dynamic shifts and transformations within the format than the TEN-T which has not changed effectively since adoption by EU law in 2013 despite some member states in the region wishing to add additions to the map and/or additional time.

This conclusion leads to a discussion where the proposals for amendments of the TSI are proposed. The proposals concern organization, selection system and coordination. As the TSI is more flexible than the TEN-T from the theory certain negative aspects of this flexibility can be mitigated without the necessity of transforming into an NAO. Organization is an aspect of flexible

networks which suffers without hierarchy and can be counteracted with the use of central hubs of information. For example, a website which already compiles all information concerning priority projects. The selection system of priority projects must also become more stringent as flexibility has led to certain elements within countries, such as the President of Czechia, to add projects which are not beneficial to the region. A way to remedy this would be to establish a civil society forum which would be able to scrutinize the projects from a non-political, but social view. Third is coordination, the TSI in its strategic goals and regional dimension can be a powerful voting bloc within the EU where the countries agree and can help further the infrastructure within the region if coordination of positions within EU policy were to occur. This would build upon the TSI's strength as an addition to the TEN-T.

The significance of such research for the advancement of the theory of network governance is substantial. The TSI, with its more flexible approach can prove to be an innovative format for EU integration for newer member states which have been denied the ability to join Western Europe in its efforts to unify infrastructure. It also furthers the advancement of the theory into public infrastructure networks as such corporations have not been studied through the lens of network governance previously. Such research points to another field of networks for network governance to explore and better inform to allow for more efficient cooperation that leads to integration of transport links across regions across the world.

Bibliography

- Agranoff, R. (2007). *Managing within networks: Adding value to public organizations*. Georgetown University Press.
- Anderson, R. (2007). *Thematic Content Analysis (TCA) Descriptive Presentation of Qualitative Data*. 4.
- Atlantic Council. (2014, November). *Completing Europe From the North-South Corridor to Energy, Transportation, and Telecommunications Union*. https://www.ceep.be/www/wp-content/uploads/2014/11/Completing-Europe_Report.pdf
- Bache, I., Bartle, I., & Flinders, M. (2016). 40. *Multi-level governance*. 13.
- Bachtler, J., & McMaster, I. (2008). EU Cohesion Policy and the Role of the Regions: Investigating the Influence of Structural Funds in the New Member States. *Environment and Planning C: Government and Policy*, 26(2), 398–427. <https://doi.org/10.1068/c0662>
- Balfour, R., & Kirch, A.-L. (2017). *Can Core Europe Move Forward without a Core?* German Marshall Fund of the United States. <http://www.jstor.org/stable/resrep18773>
- BBC Worldwide Monitoring. (2020). *Estonia president: Three Seas Initiative not competing with EU*. 4.
- Blanchard, O. J., & Giavazzi, F. (2002). *Current Account Deficits in the Euro Area. The End of the Feldstein Horioka Puzzle?* <http://dx.doi.org/10.2139/ssrn.372880>
- Blatter, J., & Haverland, M. (2012). *Designing Case Studies*. Palgrave Macmillan UK. <https://doi.org/10.1057/9781137016669>
- Bogdanova, O., & Makarychev, A. (Eds.). (2020). *Baltic-Black Sea Regionalisms: Patchworks and Networks at Europe's Eastern Margins*. Springer International Publishing. <https://doi.org/10.1007/978-3-030-24878-9>
- Bormans, Y. (2019, September 3). *Connecting Europe Facility* [Text]. Mobility and Transport - European Commission. https://ec.europa.eu/transport/themes/infrastructure/cef_en
- Brzozowski, A. (2020, October 20). Three Seas Initiative inches forward as US ramps up support. *Www.Euractiv.Com*. <https://www.euractiv.com/section/economy-jobs/news/three-seas-initiative-inches-forward-as-us-ramps-up-support/>
- Calheiros, B. (2020). *THE 3 SEAS INITIATIVE: GEOPOLITICS AND INFRASTRUCTURE*. 10, 14.
- Califano, A., & Gasperin, S. (2019). Multi-speed Europe is already there: Catching up and falling behind. *Structural Change and Economic Dynamics*, 51, 152–167. <https://doi.org/10.1016/j.strueco.2019.08.009>
- Debysier, A., & Gouardères, F. (2021). *Trans-European Networks – guidelines*. 6.
- Defazio, D., Lockett, A., & Wright, M. (2009). Funding incentives, collaborative dynamics and scientific productivity: Evidence from the EU framework program. *Research Policy*, 38(2), 293–305. <https://doi.org/10.1016/j.respol.2008.11.008>
- Dybczak, K., Sola, S., Jovanovic, N., Ari, A., Ozturk, E. O., Bartolini, D., Topalova, P., Jobst, A., Honjo, K., Papi, L., Bella, G. D., Boranova, V., Stone, M., & Huidrom, R. (2020). *Infrastructure in Central, Eastern, and Southeastern Europe: Benchmarking, Macroeconomic Impact, and Policy Issues*.

- EU Monitor. (2021). *Enhanced cooperation—EU monitor*.
<https://www.eumonitor.eu/9353000/1/j9vvik7m1c3gyxp/vh7dow6rirz4>
- European Commission. (1994). *Growth, Competitiveness, Employment The Challenges and ways Forward into the 21st Century—White Paper*. Office for Official Publications of the European Communities.
<https://op.europa.eu/s/pkt0>
- European Commission. (2021). *Cohesion Fund*. https://ec.europa.eu/regional_policy/en/funding/cohesion-fund/
- European Council. (1994, December). *EUROPEAN COUNCIL MEETING ON 9 AND 10 DECEMBER 1994 IN ESSEN*. https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/00300-1.en4.htm
- Fidora, M., Giordano, C., & Schmitz, M. (2021). Real Exchange Rate Misalignments in the Euro Area. *Open Economies Review*, 32(1), 71–107. <https://doi.org/10.1007/s11079-020-09596-1>
- Franks, J., Barkbu, B., Blavy, R., Oman, W., & Schoelermann, H. (2018). Economic Convergence in the Euro Area: Coming Together or Drifting Apart? *IMF Working Papers*, 18(10), 1.
<https://doi.org/10.5089/9781484338490.001>
- Gänzle, S., Stead, D., Sielker, F., & Chilla, T. (2019). Macro-regional Strategies, Cohesion Policy and Regional Cooperation in the European Union: Towards a Research Agenda. *Political Studies Review*, 17(2), 161–174. <https://doi.org/10.1177/1478929918781982>
- Goldsmith, S., & Eggers, W. D. (2004). *Governing by Network*. Brookings Institution Press; JSTOR.
<http://www.jstor.org.proxy.library.uu.nl/stable/10.7864/j.ctt12879qp>
- Grgić, G. (2021). The Changing Dynamics of Regionalism in Central and Eastern Europe: The Case of the Three Seas Initiative. *Geopolitics*, 1–23. <https://doi.org/10.1080/14650045.2021.1881489>
- Huxham, C., & Vangen, S. (2005). *Managing to Collaborate* (0 ed.). Routledge.
<https://doi.org/10.4324/9780203010167>
- INEA. (2021). *Innovation and Networks Executive Agency* [Text]. Innovation and Networks Executive Agency - European Commission. <https://ec.europa.eu/inea/en>
- Innovation and Networks Executive Agency. (2019). *The Connecting Europe Facility: Five years in supporting European infrastructure : investing in European networks*.
http://publications.europa.eu/publication/manifestation_identifier/PUB_EF0319601ENN
- Jarończyk, K., & Przybylski, W. (2021). *Towards 3SI Civil Society Forum; Three Seas Initiative 2025* (No. Special Edition 2 (18) , 2021). Visegrad Insight.
https://visegradinsight.eu/app/uploads/2021/07/Visegrad-Insight_18_2021-3SI-2025.pdf
- Jasiecki, K. (2020). The Role and Importance of Economic Cooperation of the Visegrad Group Countries in the European Union. *On-Line Journal Modelling the New Europe*, 33, 25–45.
<https://doi.org/10.24193/OJMNE.2020.33.02>
- Jones, C., Hesterly, W. S., Fladmoe-Lindquist, K., & Borgatti, S. P. (1998). Professional Service Constellations: How Strategies and Capabilities Influence Collaborative Stability and Change. *Organization Science*, 9(3), 396–410. <https://doi.org/10.1287/orsc.9.3.396>

- Kickert, W. J. M., Klijn, E. H., & Koppenjan, J. F. M. (1997). *Managing Complex Networks: Strategies for the Public Sector*. SAGE Publications. <https://books.google.pl/books?id=1peNLemAin0C>
- Kitson, M., Martin, R., & Tyler, P. (2004). Regional Competitiveness: An Elusive yet Key Concept? *Regional Studies*, 38(9), 991–999. <https://doi.org/10.1080/0034340042000320816>
- Koppenjan, J., & Klijn, E.-H. (2004). *Managing Uncertainties in Networks: Public Private Controversies*. <http://web.b.ebscohost.com.proxy.library.uu.nl/ehost/ebookviewer/ebook/bmxlYmtfXzExNjE5M19fQU41?sid=8dc11577-ed9f-4438-8f84-b7b5f85540f3%40sessionmgr101&vid=0&format=EB&rid=1>
- Kurecic, P. (2018). The Three Seas Initiative: Geographical determinants, geopolitical foundations, and prospective challenges. *Hrvatski Geografski Glasnik/Croatian Geographical Bulletin*, 80, 99–124. <https://doi.org/10.21861/HGG.2018.80.01.05>
- Lawrence, R. (2011). Deriving collaborative aims and outcomes: A case-study of cross-border cooperation in Central and Eastern Europe. *Evaluation*, 17(4), 365–382. <https://doi.org/10.1177/1356389011421927>
- Leonardi, R. (2006). Cohesion in the European Union. *Regional Studies*, 40(2), 155–166. <https://doi.org/10.1080/00343400600600462>
- Lewicki, G. (2021, January 8). Meet the Three Seas Initiative: The crucial international project you probably know little about. *Notes From Poland*. <https://notesfrompoland.com/2021/01/08/meet-the-three-seas-initiative-the-crucial-international-project-you-probably-know-little-about/>
- Ling, J. (2017). Reshaping the Path: Tackling the European Integration Dilemma. *China International Studies*, 19.
- López, E., Gutiérrez, J., & Gómez, G. (2008). Measuring Regional Cohesion Effects of Large-scale Transport Infrastructure Investments: An Accessibility Approach. *European Planning Studies*, 16(2), 277–301. <https://doi.org/10.1080/09654310701814629>
- Mandell, M. P. (2001). Collaboration Through Network Structures for Community Building Efforts. *National Civic Review*, 90(3), 279–288. <https://doi.org/10.1002/ncr.90308>
- Mazier, J., & Valdecantos, S. (2015). A multi-speed Europe: Is it viable? A stock-flow consistent approach. *European Journal of Economics and Economic Policies: Intervention*, 12(1), 93–112. <https://doi.org/10.4337/ejeep.2015.01.08>
- Nyysönen, H. (2018). The East is different, isn't it? – Poland and Hungary in search of prestige. *Journal of Contemporary European Studies*, 26(3), 258–269. <https://doi.org/10.1080/14782804.2018.1498772>
- Palier, B., Rovny, A. E., & Rovny, J. (2018). *European Disunion? Social and Economic Divergence in Europe, and their Political Consequences* (Vol. 1). Oxford University Press. <https://doi.org/10.1093/oso/9780198807971.003.0011>
- Pereira, L. (2019, September 2). *Trans-European Transport Network (TEN-T)* [Text]. Mobility and Transport - European Commission. https://ec.europa.eu/transport/themes/infrastructure/ten-t_en
- Powell, W. W. (1990). *Neither Market nor Hierarchy: Network Forms of Organization*. JAI Press.
- Provan, K. G., & Kenis, P. (2007). Modes of Network Governance: Structure, Management, and Effectiveness. *Journal of Public Administration Research and Theory*, 18(2), 229–252. <https://doi.org/10.1093/jopart/mum015>

- Provan, K. G., & Milward, H. B. (1995). A Preliminary Theory of Interorganizational Network Effectiveness: A Comparative Study of Four Community Mental Health Systems. *Administrative Science Quarterly*, 40(1), 1. <https://doi.org/10.2307/2393698>
- Rees, N. (1997). Inter-regional cooperation in the EU and beyond. *European Planning Studies*, 5(3), 385. <https://doi.org/10.1080/09654319708720406>
- Schipper, F., & Van der vleuten, E. (2008). *Trans-European Network Development and Governance in Historical Perspective*. https://www.researchgate.net/profile/Erik-Van-Der-Vleuten/publication/241869719_Trans-European_Network_Development_and_Governance_in_Historical_Perspective/links/53f216660cf2bc0c40e70a55/Trans-European-Network-Development-and-Governance-in-Historical-Perspective.pdf
- Schmidt, A. (2017). FROM INTERMARIUM TO THE THREE SEAS INITIATIVE – REGIONAL INTEGRATIONS IN CENTRAL AND EASTERN EUROPE AND THE HUNGARIAN FOREIGN POLICY. *Politeja*, 51/6, 165–190.
- Solow, R. M. (1956). A Contribution to the Theory of Economic Growth. *The Quarterly Journal of Economics*, 70(1), 65. <https://doi.org/10.2307/1884513>
- Three Seas Initiative. (2016). *Dubrovnik Summit 2016 Declaration*. <https://3seas.eu/about/past-summits/dubrovnik-summit-2016>
- Three Seas Initiative. (2017). *Warsaw Summit 2017 Declaration*. <https://media.voog.com/0000/0046/4166/files/WARSAW-joint-declaration-2017.pdf>
- Three Seas Initiative. (2018). *Bucharest Summit 2018 Declaration*. https://media.voog.com/0000/0046/4166/files/BUCHAREST-SUMMIT-JOINT-DECLARATION_2018.pdf
- Three Seas Initiative. (2019). *Ljubljana Summit 2019 Declaration*. <https://media.voog.com/0000/0046/4166/files/LJUBLJANAJoint%20Declaration%202019.pdf>
- Three Seas Initiative. (2021a). *Status Report of 2021*. <https://projects.3seas.eu/report>
- Three Seas Initiative. (2021b). *Three Seas Story*. Three Seas Initiative. <https://3seas.eu/about/threeseasstory>
- Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & Health Sciences*, 15(3), 398–405. <https://doi.org/10.1111/nhs.12048>
- Verspagen, B. (2009). *A Global View of Economic Growth*. 22.
- Verweij, S., & Gerrits, L. M. (2013). Understanding and researching complexity with Qualitative Comparative Analysis: Evaluating transportation infrastructure projects. *Evaluation*, 19(1), 40–55. <https://doi.org/10.1177/1356389012470682>
- Vickerman, R., Spiekermann, K., & Wegener, M. (1999). Accessibility and Economic Development in Europe. *Regional Studies*, 33(1), 1–15. <https://doi.org/10.1080/00343409950118878>
- Wachhaus, T. A. (2012). Anarchy as a Model for Network Governance. *Public Administration Review*, 72(1), 33–42. <https://doi.org/10.1111/j.1540-6210.2011.02481.x>

Wemer, D. A. (2019, February 11). The Three Seas Initiative explained. *Atlantic Council*.
<https://www.atlanticcouncil.org/blogs/new-atlanticist/the-three-seas-initiative-explained-2/>

Zbińkowski, G. (2019). The Three Seas Initiative and its Economic and Geopolitical Effect on the European Union and Central and Eastern Europe. *Comparative Economic Research. Central and Eastern Europe*, 22(2), 105–119. <https://doi.org/10.2478/cer-2019-0015>

Zięba, R. (2020). *Poland's Foreign and Security Policy: Problems of Compatibility with the Changing International Order*. Springer International Publishing. <https://doi.org/10.1007/978-3-030-30697-7>

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