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THE USE OF BOUNDARY SPANNERS FOR A BETTER COLLABORATION IN PUBLIC PRIVATE PARTNERSHIPS

CASE STUDY: INFRASTRUCTURE PROJECT DE TWEEDE
COENTUNNEL

Colophon

Title: The use of Boundary spanners for a better collaboration in Public Private Partnerships

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Abstract

For large infrastructure projects, Public Private Partnerships can provide the right organizational structure to enhance benefits for both the public as well as the private sector. In the Netherlands, the DBFM-contract is promoted, resulting in that the private sector has the responsibility to design, build, finance, and maintain a project for a long period. Yet, due to the high managerial challenges of the contracts, insufficient satisfaction between stakeholders in different stages/fields often leads to a non-collaborative environment. It will be worthwhile to investigate how boundary spanners can improve the collaboration by looking at the information/communication and the relational aspects. This Bachelor thesis will therefore investigate how boundary spanners can facilitate better collaboration in PPPs, with the use of a case study of the infrastructure project de Tweede Coentunnel. This was done by combining in-depth interviews, media- and document analysis. De Tweede Coentunnel had to deal with several conflicts, of which multiple conflicts, such as communication language, maintenance for the cooperative relationship, and joint responsibility, highly affected the collaboration. Three types of boundary spanners were identified, namely ‘Coordinators’, ‘Interpreters/Communicators’, and ‘Entrepreneurs’, in which the first two types improved the collaboration by exchanging and translating information, and therefore also improved the communication language. Regarding the relational aspect, the ‘Entrepreneurs’ improved the collaboration by directing, increasing trust, and proving a good maintenance for the collaborative relationship and joint responsibility. It can be concluded that all respondents experienced the collaboration positively, after the influence and activities of the boundary spanners.

Introduction

1.1 Background

The emergence of PPPs, especially in infrastructure, is associated with several advantages, such as high economic benefits, cost-savings, better customer service, shorter construction time, and in the end, a good qualitative product (Murphy, 2008; Akitoby *et al.*, 2007). An example of a PPP, regarding infrastructure projects, is a Design, Build, Finance, Maintain (DBFM) project. This type covers the entire process, from the creation of a design to a fully operational construct with all the associated services (Straub *et al.*, 2012). According to Leiringer *et al.* (2009), struggles between different organizations in PPPs are present, resulting in fragmented interests and non-collaborative types of working. Furthermore, public and private organizations have contrasting roles in the economy, motivations, organizational cultures, and governance mechanisms that will cause difficulty in their collaboration and will complicate the management (Edelenbos and Teisman, 2005; Klijn and Teisman, 2003). To cope with these difficulties, boundary spanners can be instrumental to reduce management challenges since these boundary spanners are people that connect processes and actors across boundaries and they aim to establish and maintain the collaborative environment (Jones and Noble, 2008a; Perrone *et al.* 2003; Van Meerkerk and Edelenbos 2018; Williams, 2002). However, the exact role and effect of a boundary spanner in PPPs/DBFM projects is still unclear (Jones and Noble, 2008b).

1.2 Scientific relevance

A systematic review of PPPs studies that were published from 2009 to 2019, was carried out by Pan *et al.*, (2020) to compare with the results of Ke *et al.*, (2009), who did a review of PPP from 1998 to 2008. They concluded that future research was necessary because the following question arose “How to satisfy stakeholders in different stages and fields?” Even though satisfaction is a very broad term and not easy to fix in the short term, perhaps boundary spanners can start working on the problem, since this challenge seems to fit the aim of boundary spanners. Deploying a boundary spanner can improve collaboration since boundary spanners can develop and coordinate collaboration across organizational, sectoral, and disciplinary boundaries, by doing cross-boundary work (Van Meerkerk and Edelenbos, 2018). This research hopes to answer the question that resulted from the systematic review by exploring the role of the boundary spanner in PPPs.

1.3 Social relevance

In PPPs, it is expected that the managerial challenges are higher than in organizations with the same sector (Public or Private, since it has a different cultural fit due to the cross-sectoral organization (Child and Faulkner, 1998). In addition, Reynaers and Van der Wal (2018) explain that the differences between Public and Private management have been examined broadly, by studying the comparisons between the sectors, but not the cross-sectoral collaborative arrangements. These cross-sectoral managerial challenges could affect the collaboration negatively, and therefore it is vital to investigate, how boundary spanners could improve this. Besides, the importance of boundary spanners is increasing, especially in the private sector, because they work in highly changing and unstable environments to which these organizations, need to accommodate to maintain client satisfaction and competitive advantage. Yet, it remains unclear whether this increasement also applies to PPPs, considering that they have higher managerial challenges. Next to that, by investigating how a sufficient collaboration can be achieved, actors of public and private organizations can already use these outcomes to intervene or prevent conflicts that could turn into non-collaborative working.

1.4 Research problem

1.4.1 Aim of this research

The aim of this research is to investigate how the role of the boundary spanner can improve the collaboration in Public Private Partnerships. This will be investigated via a case study concerning the infrastructure project: De Tweede Coentunnel in the Netherlands.

1.4.2 Main research question

The following research question is formulated to answer the research aim:

Q1: *“How does the role of boundary spanner facilitate better collaboration in Public Private Partnerships?”*

1.4.3 Sub-questions

To find an answer to this question, several sub-questions will be conducted that will provide an answer in the end.

Q.2.1 *“How can the PPP be characterized in the case of the project de Tweede Coentunnel?”*

Q.2.2 *“How is the collaboration between the different sectors organized in the case of the project de Tweede Coentunnel?”*

Q.2.3 *“Which types of boundary spanners can be observed in the case of the project ‘de Tweede Coentunnel’ and what are their activities in this project?”*

1.5 Reading guide

Chapter 1 states the introduction. Chapter 2 will provide a theoretical framework for the main concepts in this research. Chapter 3 states the methodology including the data collection and the data analysis. In Chapter 4, you can read the results. Chapter 5 provides the conclusion and the recommendations on planning practices. The discussion and recommendations for further research can be found in chapter 6. In the last sections, you will find the references and the appendices.

Theoretical Framework

2.1 Public Private Partnerships

PPPs can be defined as a structured cooperation between public and private organizations, in which they combine and share the risks, benefits, costs, resources, and responsibilities regarding the planning, construction, and exploitation of infrastructural practices (Koppenjan, 2005). Edelenbos and Teisman (2008) add that this collaboration has its focus on achieving a common aim and will in return, enhance the benefits of their collaboration.

Additionally, two types of PPPs are differentiated by various scholars, which are the alliance model and the concession model (Akintoye *et al.*, 2003; Koppenjan, 2005; Edelenbos and Teisman, 2008). The alliance model focuses on the process management, in which the importance lies on the most important parties, with their interests and views, and how to keep them together, instead of focusing on the contracts (Edelenbos and Teisman, 2008). Furthermore, this type is a joint collaboration, to develop, maintain and/or operate in the infrastructure facility (Koppenjan, 2005).

The second model is the concession model. This model is a form of cooperation, where there is a strong emphasis on the contracts to create clarity and certainty in the collaboration (Edelenbos and Teisman, 2008). The scope of the project is to look for clear distinctions and boundaries, for example, having a clear distinction between the commissioner (public party) and the contractor (private party). This will be done via the use of contracts (Edelenbos and Teisman, 2008). There are various forms of concession model, but the DBFM-contracts are promoted in the Netherlands (Rijksoverheid, 2021). Therefore, we will focus on a DBFM-contracts.

2.1.1 DBFM-contract

A Design, Build, Finance, and Maintain (DBFM) is a form of PPPs that Rijkswaterstaat (RWS), (referring to a part of the Dutch Ministry of Infrastructure and Water Management) is using to realize large infrastructural works in civil- road- and hydraulic engineering (Koppenjan *et al.*, 2020). A DBFM-contract puts the design, construction, financing, and maintenance under the responsibility of a private party (the contractor). These DBFM-contracts can take up to 20 to 30 years (Koppenjan *et al.* 2020). The focus within these projects is less on hard/physical engineering as a product, but more on providing accommodation services for a given period (Saub *et al.*, 2012).

The structure is as follows; the contractor is a consortium of various companies that together form the so-called Special Purpose Company (SPC). Companies are, for example, construction companies and private investors. This SPC is acting as a contractor for PCA and will arrange the financing of the project (Koppenjan *et al.* 2020). Financing results from bank loans and equity from shareholders. Furthermore, the SPC closes sub-contracts with an Engineering, Procurement and Construction Company (EPC) for the infrastructural design and construction aspect, and a Maintenance Company (MTC) for the maintenance of the infrastructure project. Sometimes only an EPCM contract is signed with the parties that are responsible for the design, construction (build), and maintenance components. This is schematically visible in figure 1.

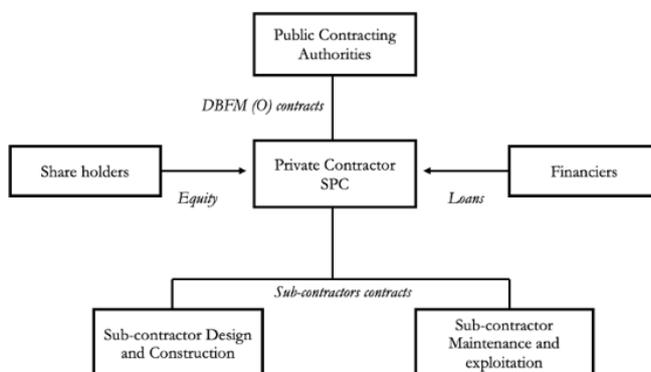


Figure 1. The organization of a DBFM-contract (Translated from Hamdan *et al.* 2014)

2.2 Indicators of collaboration in PPPs

Collaboration in PPPs, or in general, can be seen as a broad term and can differ per type of relation. Therefore, the term will be divided into two indicators namely, information/communication and relation. By identifying the two indicators, it can be investigated how the collaboration can be improved and how boundary spanners can take a role in that.

2.2.1 Information/Communication

The first indicator of collaboration will be expressed via the information and communication aspects. In terms of information, it is important to have sufficient information transparency to improve the collaboration (Koppenjan *et al.*, 2020). According to Qin *et al.* (1997) the forms of information, and the number of informal meetings can also be seen as an indicator. Regarding communication, the means of communication for example, the communication instruments (e-mail, fax, telephone, and paper) and communication language can be considered as other components (Qin *et al.*, 1997; Williams, 2002). Communication language is speaking in terms of jargon, which could result in time savings and a better understanding of each other.

2.2.2 Relation

The other indicator of collaboration will be divided into the relation. Williams (2002) states that trust, reliability, and willingness to move on, without harming the relation is also a valuable aspect of the relation. In addition, Koppenjan *et al.*, (2020) explain that the maintenance for the cooperative relationship, joint responsibility, owning favors, and mutual satisfaction are important to improve the relation, and therefore influence the collaboration.

Both indicators are shown schematically in figure 2 below.

Information/ Communication	Forms of information	Means of communication	Informal meetings	Communication language
	Information transparency			
Relation	Trust	Joint responsibility	Owning favors	Mutual satisfaction
	Reliability	Willingness to move on	Maintenance for the cooperative relationship	

Figure 2: Overview of collaboration indicators

2.3 Boundary Spanners

To understand how boundary spanners can contribute to better collaboration in PPP management, it is first needed to establish what a boundary spanner is, and which types of boundary spanners can be defined. In this research we will use the definition of Van Meerkerk and Edelenbos, (2018) which states as follows:

“People who proactively scan the organizational environment, employ activities to cross organizational or institutional boundaries, generate and mediate the information flow and coordinate between their “home” organization or organizational unit its environment, and connect processes and actors across these boundaries.” (Van Meerkerk and Edelenbos, 2018 p. 3)

Given this definition, a boundary spanner can act on many different things. Various scholars identified different boundary spanners (Van den Brink *et al.* 2019; Williams 2002, 2012; Van Meerkerk and Edelenbos, 2018), yet it is also discussed that they have common features and/or share a similar positionality. Hence, we will characterize four types of boundary spanners for this research, in which certain boundary spanners are suitable for increasing the collaboration in PPPs.

2.3.2 Boundary spanner as Interpreter/Communicator

The boundary spanner as Interpreter/Communicator focuses on the motivations, cultures, practices of a wide variety of actors, organizations, professionals, and sectors who have collaborative environments (Williams, 2012). Another characteristic of the Interpreter/Communicator is to emphasize the entrepreneurial aspects by focusing on translating, the information from the organization and environment and vice versa (Van den Brink *et al.*, 2019). The Interpreter/Communicator could have a positive influence on the information/communication indicator, whereby these boundary spanners will help translating and communicating between different boundaries.

2.3.3 Boundary spanner as a Coordinator

This type refers to boundary spanners who are providing access to the workflow structure, by coordinating, negotiating, and giving feedback (Van den Brink *et al.*, 2019). Moreover, they strive to ensure that everyone is treated fairly, and inclusively by making use of effective means of communication, information-sharing, and decision-making processes (Williams, 2012). Van den Brink *et al.* (2019) also indicates that a Coordinator will primarily focus on connecting, as they aim to identify information and actors that are considered relevant for organizational performance, and innovation. This could give a positive influence on the information/communication indicator of the PPP collaboration.

2.3.4 Boundary spanner as a Reticulist

According to Friend *et al.* (1974), the most leading role of Reticulist is to understand and manage relationships and interdependencies through a range of competencies, which includes interpersonal development and maintaining network links. Effective networking will enable the boundary spanner to understand the social structures of different actors, with their own interests and values, and it will understand the outcomes of the processes to gain a successful negotiation (Hosking and Morley, 1991). Williams (2002) refers to a reticulist as ‘special’ people in networks who play a role in bridging unlikely partners together in breaking through red tape and seeing things differently. This boundary spanner is expected to have a positive influence on relation indicator of collaboration since this boundary spanner can improve the level of mutual satisfaction and maintain the cooperative relationship. In addition, Ring and Van de Ven (1994) point out that this boundary spanner will create positive features with regards to trust, sharing values, and social bonding, and therefore influence the relation.

2.3.5 Boundary spanner as an Entrepreneur

The capacities of the Entrepreneurs are defined as people who bring new ideas, creativity, and lateral thinking (Williams, 2002). Next to that, Kingdon (1984) highlights that these boundary spanners are skilled at coupling problems, policies, and politics (opportunistically) in response to opening ‘policy windows’. Additionally, Van den Brink *et al.*, (2019) states that Entrepreneurs are trying to explore these windows of opportunity, by linking different issues, agendas, and policies across the boundaries, and construct innovative arrangements to build connections and coalitions between boundaries actors. Hence, the entrepreneur is primarily focused on connecting and aiming to identify and translate actors and information that are considered relevant. An Entrepreneur is expected to enhance the relational aspect of collaboration, by using their skills to tackle down coupling problems (Kingdon, 1984). Van Meerkerk and Edelenbos (2018) explain that an Entrepreneur is engaged in innovation across different institutional and/or organizational boundaries with the ability to also build alliances and connect actors operating different and often are bending formal and informal rules, regulations, and procedures to make things possible and to create new opportunities. It will be expected that this boundary spanner can contribute to a better collaboration, by increasing the relation indicator.

The four types with their leading role and their key activities are shown in figure 3.

	Interpreter/ Communicator	Coordinator	Reticulist	Entrepreneur
Leading role	Focusing on the collaborative environments between the aspects.	Providing access to workflow structures and achieve fairness.	Understanding and managing the relationships and interdependencies.	Bridging new ideas, creativity, lateral thinking, and searching for windows of opportunity.
Key activities	Translating and communicating the environment.	Identifying information, innovation, negotiating, and connecting by information sharing.	Bridging unlikely partners and maintaining networks links, sharing trust, values and social bonding.	Connecting, translating, linking agendas, bending rules, regulations and procedures.

Figure 3: Typology of the boundary spanners

2.4 Conceptual model

This conceptual model shows the main concepts for this research (figure 4). The concept boundary spanners is divided into four types, and collaboration into two indicators. The first two types, the Interpreter/communicator and Coordinator, are expected to have a positive influence on the information/communication indicator of collaboration, and the Reticulist and Entrepreneur are expected to have a positive influence on the relation indicator of collaboration.

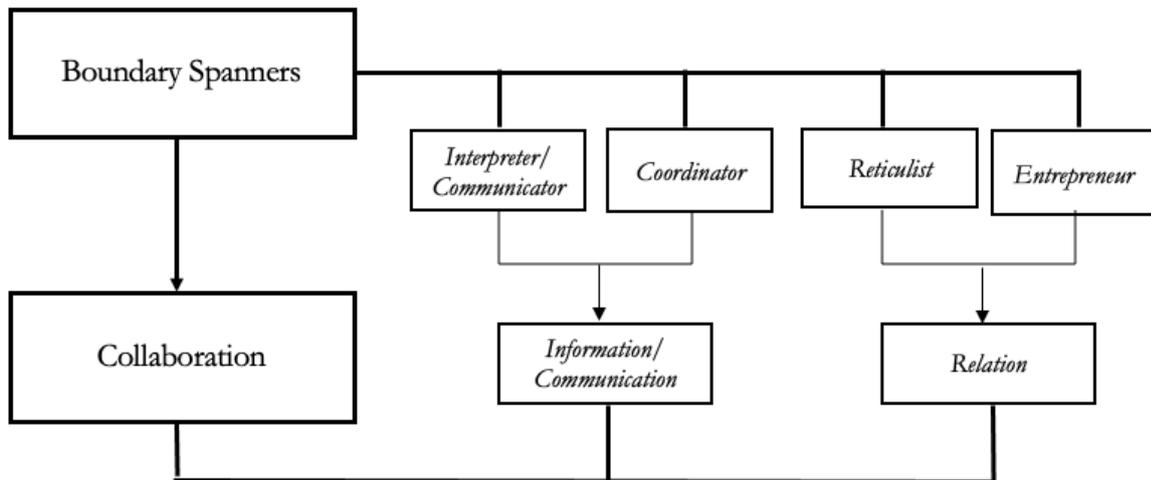


Figure 4: Conceptual model

Methodology

3.1 Case study method

For this research, there will be made use of qualitative research methods. Yin (2014) explains that qualitative research can uncover links among different actors and phenomena and that it is relevant for studying the ‘why’ and ‘how’ of a particular issue, process, or situation. This will be done via a single case study, to generate insights into how the boundary spanners perform in a PPP and how they eventually could improve the collaboration. Clifford *et al.*, (2016) state that a case study can offer the possibility to gain profound and integral knowledge about a certain object and/or process in practice.

3.1.1 Case description

De Coentunnel is a tunnel located in the North Sea Canal in the west of Amsterdam, through which the highway A10 ring road runs (Coentunnel, n.a.). It connects the Zaanstreek with Amsterdam-West and consists of de Eerste and de Tweede Coentunnel (Rijkswaterstaat, 2021). The first tunnel was built in 1966, to decrease the transportation time and to cope with the traffic supply, yet it became insufficient and turned into a bottleneck effect (Rijkswaterstaat, 2021). Therefore, in 2013, de Tweede Coentunnel was built via a PPP with a DBFM-contract to enhance efficiency, create cost savings, and ensure a more result-oriented approach (Coentunnel, n.a.). Below (Map 1), shows the location of de Tweede Coentunnel in the Netherlands.

The location of de Tweede Coentunnel



Map 1: de Tweede Coentunnel in the Netherlands

3.1.2 Case selection

This case study has been chosen, based on its relevance to the research objective. De Tweede Coentunnel was one of the first DBFM-contracts in the Netherlands. Consequently, it was difficult to understand the content and the scale of this project since there was unknown information and experiences of the contract type and organization itself (Neerlands diep, 2014). This created an impasse in the collaboration between the public and private organizations and therefore, it is relevant to analyze this how boundary spanners could improve that collaboration.

3.2 Data collection

In this research, a triangulation method will be applied. According to Clifford *et al.* (2016), triangulation strengthens the results, by using multiple data sources, and/or research methods, and increases the credibility and validity of research findings (Heale and Forbes, 2013). The multiple data sources are in-depth interviews, media- and (evaluation) documents.

Due to Covid-19, it was not possible to conduct the interviews physically, hence all interviews were held online through a video call or via the telephone. Recruiting was done via email, phone calls, and via LinkedIn to find suitable interviewees. Additionally, there has been made use of the snowball method, which is a technique to use a contact, or participant to help to recruit another, who in turn puts the researcher in contact with another contact (Clifford *et al.*, 2016). This resulted in more suitable respondents for the research.

3.2.1 In-depth semi-structured interviews

Primary data will be collected to answer the sub-questions. This is in the form of in-depth semi-structured interviews, with purposive sampling. Purposive sampling was chosen since it allows the informant to select the participants subjectively on basis of prior criteria (Clifford *et al.*, 2016). One of the criteria is that at least one respondent from both sectors (public and private) is interviewed to gain insights into both perspectives. Next to that, the respondents should have been extensively involved in the project to provide an answer to the research aim. The interviews are semi-structured. Clifford *et al.* (2016) refer to semi-structured interviews, in which the interviews will follow a degree of a predetermined and standardized list of questions and allows for an open response in the participant's own words, to ensure a way to address the issues by the informant, and flexibility. This was useful in this research, because it provided a safe guideline for the scope of the project, yet it enabled the interviewer to ask new questions when new relevant information is given. Before the actual interviews, a pilot interview was held to understand this case study and problem statement. With this pilot, the interview guide was adjusted. The interviews were held in Dutch since the project was created by Dutch companies, and therefore it eased the communication by using the native language. Figure 5 shows an overview of the interviews.

				Date	Duration	Medium
Pilot	Contract Manager Mobilis	Arjan Vermeij	Private	26-03-2021	61.24 min.	Microsoft Teams
Respondent 1	Technical Manager RWS	Gerard Slijkerman	Public	10-04-2021	98.17 min.	Microsoft Teams
Respondent 2	Project Manager RWS	Huib de Ridder	Public	20-04-2021	40.49 min.	Microsoft Teams
Respondent 3	Contract Manager Mobilis	Arjan Vermeij	Private	29-04-2021	29.44 min.	Microsoft Teams
Respondent 4	Director Volkerwessels	Jan Kees de Pagter	Independent (Private)	29-04-2021	24.13 min.	Telephone
Respondent 5	Contract Manager CCY	Michel Endel	Private	04-05-2021	25.44 min.	Google Meet

Figure 5: Overview of all respondents for the in-depth interviews

3.2.2 Media and document analysis

The media and other documents regarding de Tweede Coentunnel will be complementary to the information, conducted from the in-depth interviews to gain a broader understanding of the sub-questions. In addition, these documents helped to measure and explain similar concepts and/or relations. The documents are referred to as grey literature, and the news articles were selected via the search engine 'Nexis Uni'. All the selected documents are shown in figure 6.

Title	Format	Source	Date of publication
Evaluatie projectmanagement 2e Coentunnel met behulp van de Neerlands diep Spiegel	Evaluation document	Neerlands diep	November, 2014
De bestuurskundige mythe van verbindend PPS-management: de Tweede Coentunnel als illustratie	Scientific publication	Bestuurswetenschappen	May, 2008
Stroefheid troef bij Coentunnel	Media document	CoBouw	8th of June, 2013
Iedereen deed mee in de bouwfraude; Nieuw opgedoken schaduwboekhouding maakt de lijst langer	Media document	NRC Handelsblad	16th of February, 2004

Figure 6: Overview media and evaluation documents

3.3 Data analysis

The software Quick Player was used to record the audio from the online interviews. The audio has been transcribed using the software programs Amberscript and OTranscribe. The interviews were coded with ATLAS.ti, which several codes, that were created based on the analyzed theory (See appendices 1,2 and 3). Additional codes (inductive) have been used to code relevant information during the coding process.

3.4 Ethical considerations

There are multiple practical arguments to behave ethically. The first one is to protect the rights of individuals, communities, and environments. Secondly to maintain public trust, and thirdly to be accountable and sentiment (Clifford *et al.* 2016). Within this research, a consent form (see appendix 6) was sent to the interviewees to make clear what the objectives of this research were, and how the obtained data was used. Moreover, at the beginning of each interview, the participants were formally asked whether they agreed with their name being used and if the interview could be recorded. Before and afterward, the interviewee was thanked for their time and effort.

Results

4.1 General information

This chapter provides the results that are collected for this case study. The information is derived from the in-depth interviews, media- and evaluation documents. This chapter will answer to the three sub-questions. First, the characteristics of the PPP are defined in this case study. Secondly, the collaboration is discussed, and lastly, the types of boundary spanners and their activities are presented for this case study.

4.2 Characteristics of PPP in the Tweede Coentunnel

This section will give an answer to the first sub-question: *How can the PPP be characterized in the case of the project de Tweede Coentunnel?*

The infrastructure project de Tweede Coentunnel in the Netherlands can be characterized as a Public Private Partnership, whereby the public sector, Rijkswaterstaat (RWS), works together with the private sector Coentunnel Company (CCY). Via this partnership, the renovation of de Eerste Coentunnel, and a new highway de Westrandweg was also constructed (Rijkswaterstaat, 2021). The Coentunnel Company is a SPC, consisting of the companies: Dura Vermeer, Besiz, CFE, Vinci, TBI, Dredging International and, Arcadis (Neerlands diep, 2014). Rijkswaterstaat can be defined as the public controlling authority (PCA), giving the SPC a contract for the operation of the Tweede Coentunnel. This is also systematically shown in figure (7,8) below.

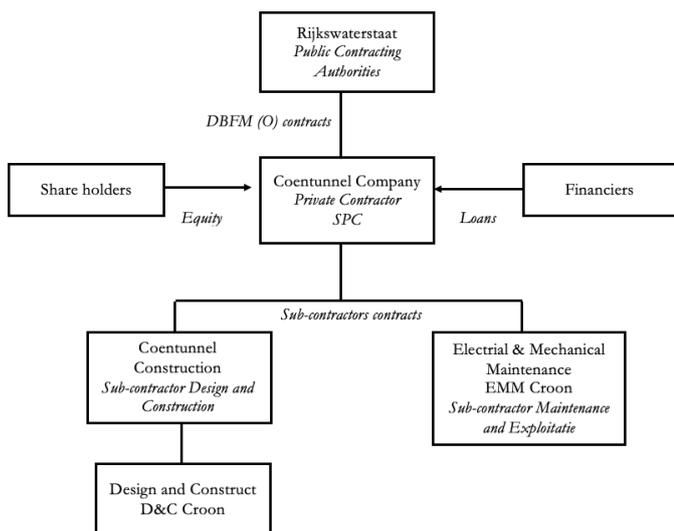


Figure 7: Organization structure CCY
(Translated from Neerlands diep, 2014)

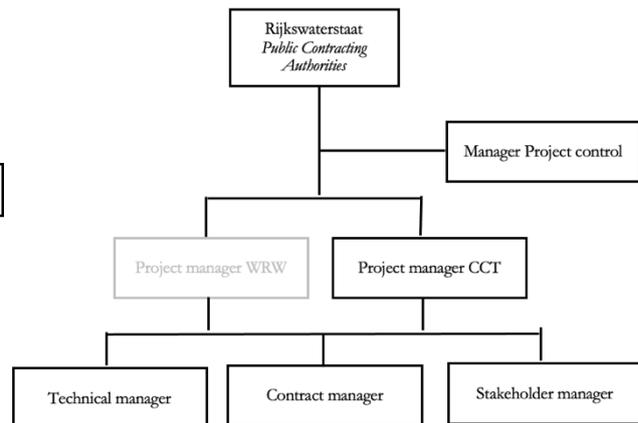


Figure 8: Organization structure RWS
(Translated from Neerlands diep, 2014)

This PPP is a concession model, with a DBFM-contract. CCY had the responsibility to design, build, finance, and maintain de Tweede Coentunnel for 30 years (Eversdijk and Kosten, 2008). The design, build and maintain is sub-contracted to a sub-company: the Coentunnel Construction and the maintenance of the specific tunnel, and traffic installations is sub-contracted to Croon Elektrotechniek B.V. (Neerlands diep, 2014). The timeline (figure 9) shows how the project was structured over the years. The contract will end in 2037.

2004	2008	2009	2012	2013	2014	2037
Administrative agreement	Final planning approval decision	Start build and construction	Weststrandweg partial open	Tweede Coentunnel and Weststrandweg open	Full opening and operation traffic	End contract period
				Renovation Eerste Coentunnel		

Figure 9: Chronology of de Tweede Coentunnel project (Translated from Neerlands diep, 2014)

This DBFM-contract is organized via a so-called availability fee, which means that corrections will be given to the CCY when the tunnel is not available due to malfunctions. (Eversdijk and Kosten, 2008). The PCA is paying the CCY for the realization, operation, and maintenance of the tunnel, hence the CCY made a very robust system, with a lot of back-ups to make sure that no money is lost on the corrections and can guarantee a good traffic flow. This can be seen as an advantage of the DBFM-contracts, especially for RWS (Cobouw, 2013; Neerlands diep, 2014). Additionally, this can also be seen in the following statements:

The availability will provide, that the traffic will have good throughflow. That is actually a little advantage of such a DBFM contract for us, because everything is done to ensure that the tunnel performs as well as possible. There is so much back-up there.” (R1-Slijkerman, 2021)

“And the penalties on the non-availability are quite high and that has led that the Coentunnel is a very robust system, with a relatively large amount of redundancy built into it, and it will also retain that contractual availability. And you can see that in all kinds of events. It costs something, but then you do have a very robust system.” (R2-De Ridder, 2021)

This availability fee was/is creating also some negative feelings, from the private sector. Endel (R5-2021) and Vermeij (R3-2021), stated that when the focus is laid on corrections, it will result in more stress and create a paralyzing effect. The quote below is what Endel (R5-2021) said about the DBFM-contract format.

“I really like the contract in itself. The principles that it contains, that you have to design, build and maintain something and then put a payment mechanism in return, which contains the necessary incentives, which ultimately makes you extra motivated to deliver good quality. So basically, it is a good form, only the emphasis is placed on fines instead of you being able to earn a bonus at that time. Yes, that is paralyzing.” (R5-Endel, 2021)

4.3 Collaboration in de Tweede Coentunnel

This section will give an answer to the second sub-question: *“How is the collaboration between the different sectors organized in the case of the project ‘de Tweede Coentunnel?’”*

4.3.1 Conflicts in the project

All respondents acknowledged that the collaboration was sometimes inadequate and barely visible due to several conflicts. As a result, more dialogue meetings and escalation processes were organized to improve the situation (R5-Endel, 2021; Neerlands diep, 2013. CoBouw, 2013). Unfortunately, it did not solve all the conflicts, and therefore an arbitration was started, in which it was decided to hire a new independent actor that was specialized in conflict-solving and had the experience of large infrastructure projects.

In this research, three conflicts that were derived from the collected data, are highlighted. Consequently, it will be discussed how certain boundary spanners have resolved them.

4.3.1.1 Communication language

As already mentioned, this project was one of the first DBFM-contracts, resulting in a very detailed and complex contract, because the organizations wanted to make sure that everything was captured. As a consequence, many lawyers were hired to help understand and translate this towards the organizations. An outcome of the evaluation shows that it created a boundary between the lawyers and the technicians since they spoke their own communication language, resulting in a limited dialogue with each other (Neerlands diep, 2014). Vermeij (R3-2021) also refers, as a technician himself, that it was sometimes difficult and chaotic to communicate with each other. In the media document “Stroefheid troef bij Coentunnel” it is stated that the tendering procedure was taking too long, because the dialogue was too difficult to understand, and the contract was containing too many details (CoBouw, 2013). This conflict was solved due to the arrival of the new independent actor. Due to his experience and knowledge of large infrastructure projects and DBFM-contracts, the new actor could, therefore easily identify, translate, and connect the information to the other actors who were struggling with this communication language (R3-Vermeij, 2021). Another solution was, to invite the lawyers to the meetings and actively involve them in the dialogue, creating a uniform communication language and connection by information sharing (Neerlands diep, 2014). This can be illustrated by the following quote of the new actor:

“The major problem at the banks was actually that RWS at that time did not fully understand the complications of a DBFM contract. At the time, they act, like they always did, but this project had a completely different form of contract. So that's what I always brought into all those discussions, Waterstaat pointed out, and that was part of my process to open up the project.” (R4-De Pagter, 2021)

4.3.1.2 Maintenance for a cooperative relationship

Another conflict that arose during the project was with regards to the maintenance for a cooperative relationship. In 2004, the Netherlands had to deal with the building fraud affair of several building companies (NRC Handelsblad, 2004; R2-De Ridder, 2021). Hence the public sector (RWS) purposely created more distance, resulting in a less cooperative relationship towards the private sector. This was changed due to the influence of several boundary spanners. For example, Vermeij (R3-2021) and De Ridder (R2-2021), stated that due to their contribution to the project, they tried to achieve that people took the time and effort to invest in the collaboration. This was done by implementing more meetings with each other and making sure that people knew what they had to do. This can be seen in the following statements

“What you also see within the infrastructure world is that projects often get stuck and then you often see the mediators appear to see how the project will go. And then you often see a double role, which on the one hand says: we will tackle the problem for a moment, because it has to be removed, and, on the other hand: how do we tackle this and how do we ensure that it no longer happens and have a clean slate for the future. I have done that myself several times with this project.” (R2-De Ridder, 2021)

“Sometimes we disagreed, but in the end that was fixed. I tried to keep the technological work on track and strived to keep it on track. That was my contribution to the team. (R3-Vermeij, 2021)

4.3.1.3 Joint responsibility

During the project, RWS was working with a so-called Bahama model, which means that they took the position of ‘leaning back and let the CCY do the rest’ (R3-Vermeij, 2021; R4-De Pagter, 2021;). The evaluation and all interviews show that this Bahama model was not working in this project. The new idea, therefore, was to let RWS have a more active involvement, and as a result, create a joint responsibility. This was done by creating a more integrational team and giving more tasks to them. An example is that RWS had to contact several stakeholders, to whom they had better access (Neerlands diep, 2014; R5-Endel, 2021). That was different opposed to the DBFM-contracts, which states that the SPC had to take care of contacting all the stakeholders. Another change in the joint responsibility was due to the influence of the new independent actor. During his presence, he made sure that the common goals were visible again. That resulted that both sectors had to work together to succeed in the project. This quote is illustrating an example of boundary spanners’ work.

“So, I literally put down some rules of the game. So, I focused on the relationship, on the content, and of course that includes sessions in all kinds of rooms, where some topics have to be further discussed in depth, but each time really under my physical guidance/supervision.” (R4-De Pager, 2021)

4.3.2 Improved indicators

More aspects of the two indicators have shown an improvement of the collaboration due to boundary spanners’ activities. By analyzing the interviews, the media- and evaluation documents, an overview is made to illustrate how strong the improvement for each aspect is (figure 10). Within this project, it can be observed that almost all aspects were interconnected and were strengthened by each other. For example, due to improvement in the forms of information, like having more meetings, both organizations started to share their information, were more reliable, and started to trust each other. In the end, this resulted in a better relationship. Vice versa, a better relationship resulted in an easier exchange of information and more communication between the different organizations.

Collaboration indicators	Aspects	Improvement
Information/ Communication	Forms of information	●
	Means of communication	○
	Informal meetings	○
	Information transparency	●
Relation	Trust	●
	Joint responsibility	●
	Owning favors	●
	Mutual satisfaction	●
	Reliability	○
	Willingness to move on	●
	Maintenance for the cooperative relationship	●



Figure 10: Overview improvement collaboration indicators

4.4. Types of boundary spanners and their activities

This section will provide an answer to the third sub-question: “Which types of boundary spanners can be observed in the case of the project ‘de Tweede Coentunnel’ and what are their activities in this project?”

4.4.1 Identification of boundary spanners and their activities in the project

In this research, not one, but multiple boundary spanners were identified since multiple persons tried to generate, coordinate, and employ activities across and between these public and private boundaries. The boundary spanners were identified via the two specific dimensions from Van Meerkerk and Edelenbos (2018).

1. By the specific organizational role of function; whereby particular people are explicitly designed as boundary spanners to cope with the environment of the organization, and/or their leading role in the project.
2. By the specific activities; more looking at the quality of boundary spanners, with communication ability, professional knowledge and who can reach compromise. (Van Meerkerk and Edelenbos, 2018, p.65)

After the identification, the leading role and key activities of these boundary spanners were used to determine which types of boundary spanners they portrayed in the project (figure 11). What has been observed is that in the beginning, the boundary spanners from the public and private organizations were mainly focusing on the collaboration within their own organizational boundaries. As the project progressed, and more conflicts occurred, these boundary spanners were forced to work more together, and therefore improved the aspects of the collaboration across both boundaries. This was done, amongst others, through exchanging more information and keeping better contact via informal conversations and meetings.

Another outcome is that results correspond with the previous findings. As mentioned by Van den Brink *et al.*, (2019) and Williams (2012), the ‘Coordinators’ and ‘Interpreter/Communicator’ did have a positive influence on the information/communication indicator since they translate and communicate information within and between the boundaries. Kingdon (1984) and Van Meerkerk and Edelenbos (2018) stated that the ‘Entrepreneurs’ can improve the relation, and this can be supported by the results because they created more trust, joint responsibility, and maintenance for a cooperative relationship. Interestingly, the independent boundary spanners did influence both indicators positively.

Name	Boundary spanner	Leading role	Key activities
Arjan Vermeij (private)	Entrepreneur	Supervising and monitoring the project during the design and implementation	Directing, coaching and connecting people and ideas.
Michel Endel (private)	Coordinator	Managing and providing information on the contract and its implications.	Translating, information sharing, and negotiating regarding the contract.
Gerard Slijkerman (public)	Interpreter/ Communicator	Constructing and regulate the technical aspects of the tunnel installations.	Translating and communicating with the other technicians.
Huib de Ridder (public)	Interpreter/ Communicator	Managing the project during the implementation.	Communicating and translating the tasks and ideas in the project.
Jan Kees de Pagter (independent)	Entrepreneur	Solving the conflicts within the projects and give leadership.	Making decisions, bending rules, looking for solutions and new ideas. Fixing the problems.

Figure 11: Overview of the boundary spanners

4.4.2 Reflection Boundary Spanners

The results of the interviews show that several key activities were of importance, that were not identified via the theoretical framework. The key activities of ‘Showing responsibilities’ and ‘Making decisions’ were often highlighted and carried out by the identified boundary spanners. Furthermore, boundary spanners that understood both the technical aspect as well as the contractual aspect were highly appreciated, because mutual understanding and information transparency occurred, which resulted in a good collaborative environment. A quote from Vermeij (R3-2021) illustrates this:

“So, if you have to manage that, you have to be a leader, otherwise those people will not work efficiently. So, he has to know where to go, with his people, follow that path.” (R3-Vermeij, 2021)

Conclusion

This case study will give an answer to the main research question: *“How does the role of the boundary spanner facilitate better collaboration in Public Private Partnerships?”*

The infrastructure project De Tweede Coentunnel can be characterized as a PPPs with a DBFM-contract. This PPP struggled with the contract type, content, and scale of the project, which resulted in several conflicts, and therefore a non-collaborative environment occurred. Some of the conflicts were about the communication language, maintenance for the cooperative relationship, and joint responsibility. Both organizations wanted to solve the conflicts, and therefore more dialogue meetings, escalation processes, and arbitration were organized. Consequently, both organizations started to work more together to improve the information/communication aspect and the relational aspect of collaboration. It is observed that, the ‘Coordinators’ and ‘Interpreters/Communicators’ improved the information/communication aspect of collaboration, by translating and communicating the information that was necessary for the project. The ‘Entrepreneurs’ improved the relational aspect of collaboration, by focusing on gaining trust, create mutual satisfaction, and providing good maintenance for the cooperative relationship and joint responsibility. This was also achieved due to the influence and help of a new independent actor, that was explicitly hired to solve the conflicts within the project. Next to that, the results are indicating a new type of boundary spanner. Several respondents stated that the independent actor also took the role of a leader, giving guidance and support to the project. Another conclusion that can be drawn, is that all respondents really appreciated that the independent boundary spanner had the knowledge and the experience of big infrastructure projects and DBFM-contracts, generating a more uniform communication language and information transparency. Finally, all respondents agreed that the collaboration, and how they experienced it, was dependent on the success of the project. In the end, they all acknowledged that de Tweede Coentunnel was a success, with not too many losses in time and money.

The systematic review from Pan *et al.*, (2020) questioned how satisfaction between stakeholders in different stages and fields could be achieved. Boundary spanners can contribute to that because their leading role and activities could provide mutual satisfaction among different actors and stakeholders. This is especially done by Entrepreneurs, who are looking for a creative solution, directing, and making decisions, which in the end result in mutual satisfaction.

Recommendations on planning practices

As a result of this research, two recommendations can be made on planning practices. Firstly, the Bahama model, which RWS used, harmed the collaboration. Therefore, it can be recommended to avoid this model and, therefore create a more active involvement in the organization. In addition, the finance component between the Public and Private organizations was organized via an availability fee. This was perceived negatively by the private organization and did influence the collaboration adversely. It can be recommended to make use of rewards, instead of corrections, so that the collaboration in large infrastructure projects can be experienced more positively.

Discussion & Recommendations for future research

For this research a single case study was chosen, to gain profound and integral knowledge about a specific context. Nonetheless, it is important to mention that it does not create a generalization of the findings, and therefore, additional research should be done to create a more accurate answer for the research aim. Additionally, the method of triangulation by Clifford *et al.*, (2016) was used. Next to the in-depth interviews, a couple of media and evaluation documents were analyzed to see if it corresponds with each other. Since the evaluation and documents were established around the opening of de Tweede Coentunnel it can be assumed that those opinions and feelings of the respondents were ‘fresher’ from memory than the in-depth interviews that were conducted nowadays. This could result in contradicting results, or even a different outcome. Future research can investigate whether this time difference did influence their perceived feelings on the collaboration. Furthermore, all respondents agreed that the project was a success, and therefore did experience the collaboration between the different organizations as successful. It can be assumed that these respondents are biased. According to Pannucci and Wilkins (2010) this phenomenon is called a recall bias. This means that the outcomes of a process, which may be good or bad, color subjects the recollections of events during or before the process. This could affect the outcome, and further research is needed to examine how strong this recall bias is or if it actually occurred.

Another limitation of this research was regarding the data collection. Due to the lack of time and information, not all actors could be interviewed, and only a couple of conflicts could be identified. This led to a limited research analysis since for example, other conflicts that were present could result in different types of boundary spanners, with different leading roles and activities. To create a more comprehensive research, more actors should be interviewed, and additional information should be gathered.

References

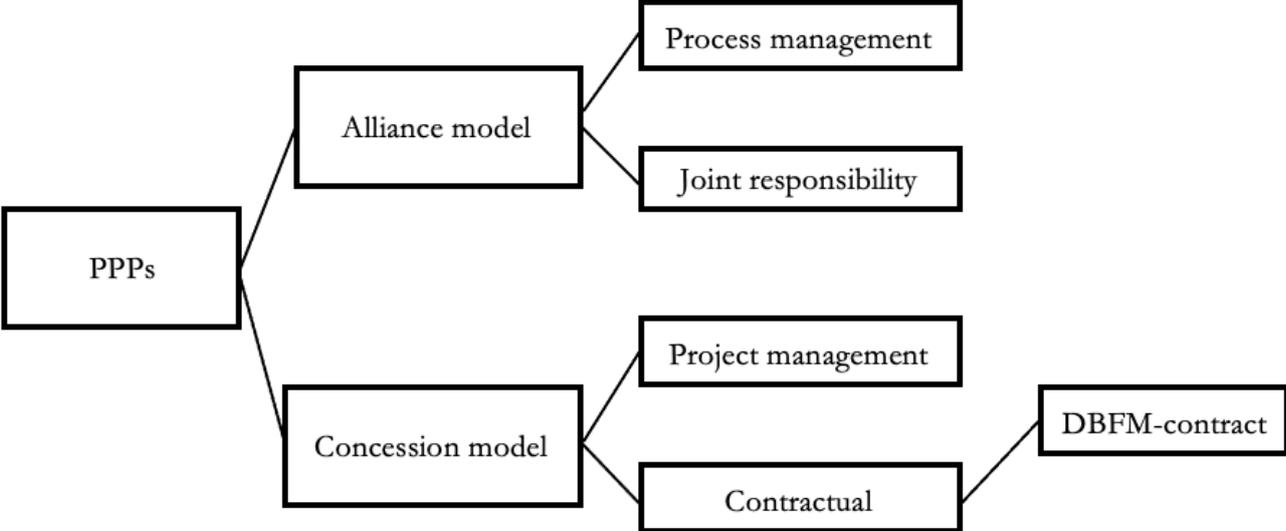
- Akitoby, B., Hemming, R., and Schwartz, G. (2007). *Public investment and public-private partnerships*. Washington, DC: Internat. Monetary Fund (Economic issues, 40).
- Akintoye, A., Beck, M., and Hardcastle, C. (2003). *Public-Private Partnerships : Managing Risks and Opportunities*, John Wiley & Sons, Incorporated, Chichester.
- Coentunnel. (n.a.). *Geschiedenis-van-amsterdam-noord.nl- Coentunnel*. Retrieved on March 18, 2021, at <<https://www.geschiedenis-van-amsterdam-noord.nl/coentunnel/>>.
- Child, J., and Faulkner, D. (1998). *Strategies of Cooperation: Managing Alliances, Networks and Joint Ventures*, Oxford: Oxford University Press .
- Clifford, N., Cope, M., Gillespie, T. & French, S. (2016). *Key methods in geography* (Third ed.). London: SAGE.
- Dohmen, J. and Verlaan, J. (2004). Iedereen deed mee in de bouwfraude; Nieuw opgedoken schaduwboekhouding maakt alleen de lijst langer. *NRC Handelsblad*. PCM Uitgevers B.V.
- Edelenbos, J. and Teisman, G. R. (2008.) 'Public-private partnership: On the edge of project and process management. Insights from Dutch practice: The Sijtwende spatial development project', *Environment and Planning C: Government and Policy*, 26(3), pp. 614–626. doi: 10.1068/c66m.
- Eversdijk, A. and Kosten, A. (2008) De bestuurskundige mythe van verbindend PPS-management: de Tweede Coentunnel als illustratie. *Bestuurswetenschappen*. vol. 62, no. 3, pp. 29-57.
- Friend, J.K., Power, J.M. and Yewlett, C.J.L. (1974). *Public Planning: The Inter-Corporate Dimension*, Tavistock, London.
- Hamdan, Y., Barendregt, E., Veekman, W. (2014). *DBFM(O) voor decentrale overheden*. Brochure: Rebel, PPS support, OPPS, Van Doorne, Tenman, Allen & Overy, KPMG.
- Heale, R. and Forbes, D. (2013). 'Understanding triangulation in research', *Evidence Based Nursing*, 16(4), p. 98. doi: 10.1136/eb-2013-101494.
- Hosking, D-M. and I.E. Morley. (1991). *A social psychology of organizing*. London: Harvester Wheatsheaf.
- Jones, R. and Noble, G. (2008a). The role of the boundary-spanning managers in the establishment of Public-Private Partnerships. *Public Administration*. v84 n4 (December 2006): 891-917.
- Jones, R. and Noble, G. (2008b). Managing the Implementation of Public–Private Partnerships, *Public Money and Management*, 28:2, 109-114, DOI: 10.1111/ j.1467-9302.2008.00629.x.
- Ke, Y., Wang, S., Chan, A.P.C. and Cheung, E. (2009). "Research trend of public-private partnership in construction journals", *Journal of Construction Engineering and Management*, Vol. 135 No. 10, pp. 1076-1086.
- Kingdon, J.W. (1984). *Agendas, alternatives, and public policies*. Boston: Little, Brownmand Company.
- Lane, C. 1998. 'Introduction: theories and issues in the study of trust', in C. Lane and R. Bachmann (eds), *Trust in and between organizations*. Oxford: Oxford University Press.
- Klijn , E.H. and G . R . Teisman (2003). Institutional and Strategic Barriers to Public-private Partnership: an Analysis of Dutch Cases. *Public Money and Management*. July. 137 – 46.

- Koenen, I. (2013). "Stroefheid troef bij Coentunnel". Retrieved on May 14, 2021, at *Coboun*. advance-lexis-com.proxy-ub.rug.nl/api/document?collection=news&id=urn:contentItem:58C8-K8F1-JC8W-Y32Y-00000-00&context=1516831.
- Koppenjan, J. (Joop) F. M. (2005). 'The Formation of Public-Private Partnerships: Lessons from Nine Transport Infrastructure Projects in The Netherlands', *Public Administration*, 83(1), pp. 135– 157. doi: 10.1111/j.0033-3298.2005.00441x.
- Koppenjan, J., Klijn, E-H., Duijn, M., Klaassen, H., van Meerkerk, I., Metselaar, S., Warsen, R., & Verweij, S. (2020). *Leren van 15 jaar DBFM-projecten bij RWS: Interviewrapportage*. Rijkswaterstaat.
- Leiringer, R., Green, S. D., & Raja, J. Z. (2009). Living up to the value agenda: the empirical realities of through-life value creation in construction. *Construction Management and Economics*, 27(3), 271-285.
- Ministry of Finance (2011). *Vision of the Cabinet on PPS Outlined as Integrated Contracts DBFMO*. The Hague, The Netherlands: Ministry of Finance.
- Meerkerk, I. van and Edelenbos, J. (2018). Boundary Spanners in Public Management and Governance. *Edward Elgar Publishing*. Cheltenham, UK:. Retrieved on February 21, 2021, at <http://search.ebscohost.com.proxyub.rug.nl/login.aspx?direct=true&db=nlebk&AN=1898897&site=ehost-live&scope=site>.
- Murphy, T. J. (2008). 'The case for public-private partnerships in infrastructure', *Canadian Public Administration*, 51(1), pp. 99-126. doi:<https://doi.org/10.1111/j.17547121.2008.00006.x>.
- Nederlandse Spoorwegen. (2021). Hogesnelheidslijn- Over NS. *NS*. Retrieved on February 26, 2021, at <https://www.ns.nl/over-ns/dossier/hogesnelheidslijn>.
- Neerlands diep. (2014). Evaluatie projectmanagement 2e Coentunnel met behulp van de Neerlands diep Spiegel- eindrapportage. *Academie voor publieke bouw- en infraprojecten*.
- Zhang, Y.-C., Luo, W.-Z., Shan, M., Pan, D.-W. and Mu, W.-J. (2020). "Systematic analysis of PPP research in construction journals: from 2009 to 2019", *Engineering, Construction and Architectural Management*, Vol. 27 No. 10, pp. 3309-3339. <https://doi-org.proxy-ub.rug.nl/10.1108/ECAM-03-2020-0178>.
- Perrone, V., Zaheer, A. and McEvily, B. (2003). Free to be trusted? Organizational restraints on trust in boundary spanners. *Organization Science*, 14, 3, pp. 422–439.
- Pannucci, C. J., & Wilkins, E. G. (2010). Identifying and avoiding bias in research. *Plastic and reconstructive surgery*, 126(2), 619–625. <https://doi.org/10.1097/PRS.0b013e3181de24bc>.
- Qin, J., Lancaster, F. W., & Allen, B. (1997). Levels and types of collaboration in interdisciplinary research. *Journal of the American Society for Information Science*, 48(10), 893–916.
- Reynaers, A. and van der Wal, Z. (2018). Do Partners in PPPs view Public and Private Management Differently? *Australian Journal of Public Administration*. vol. 77, no. 2, pp. 294–308.
- Rijksoverheid.nl. (2021). *Wat is DBFM of DBFMO?*. Retrieved on March 5, 2021, at <https://www.rijksoverheid.nl/onderwerpen/publiek-private-samenwerking-pps-bij-het-rijk/pps-contractvormen/contractvorm-dbfmo/wat-is-dbfmo>.
- Rijkswaterstaat.nl. (2021). *Coentunnel | Rijkswaterstaat*. [online] Retrieved on March 18, 2021, at <https://www.rijkswaterstaat.nl/wegen/wegenoverzicht/a10/coentunnel/index.aspx>.
- Ring, P.S. and A.H. Van de Ven. (1994). 'Developmental processes of cooperative interorganizational relationships', *Academy of Management Review*, Vol. 19, 90–118.

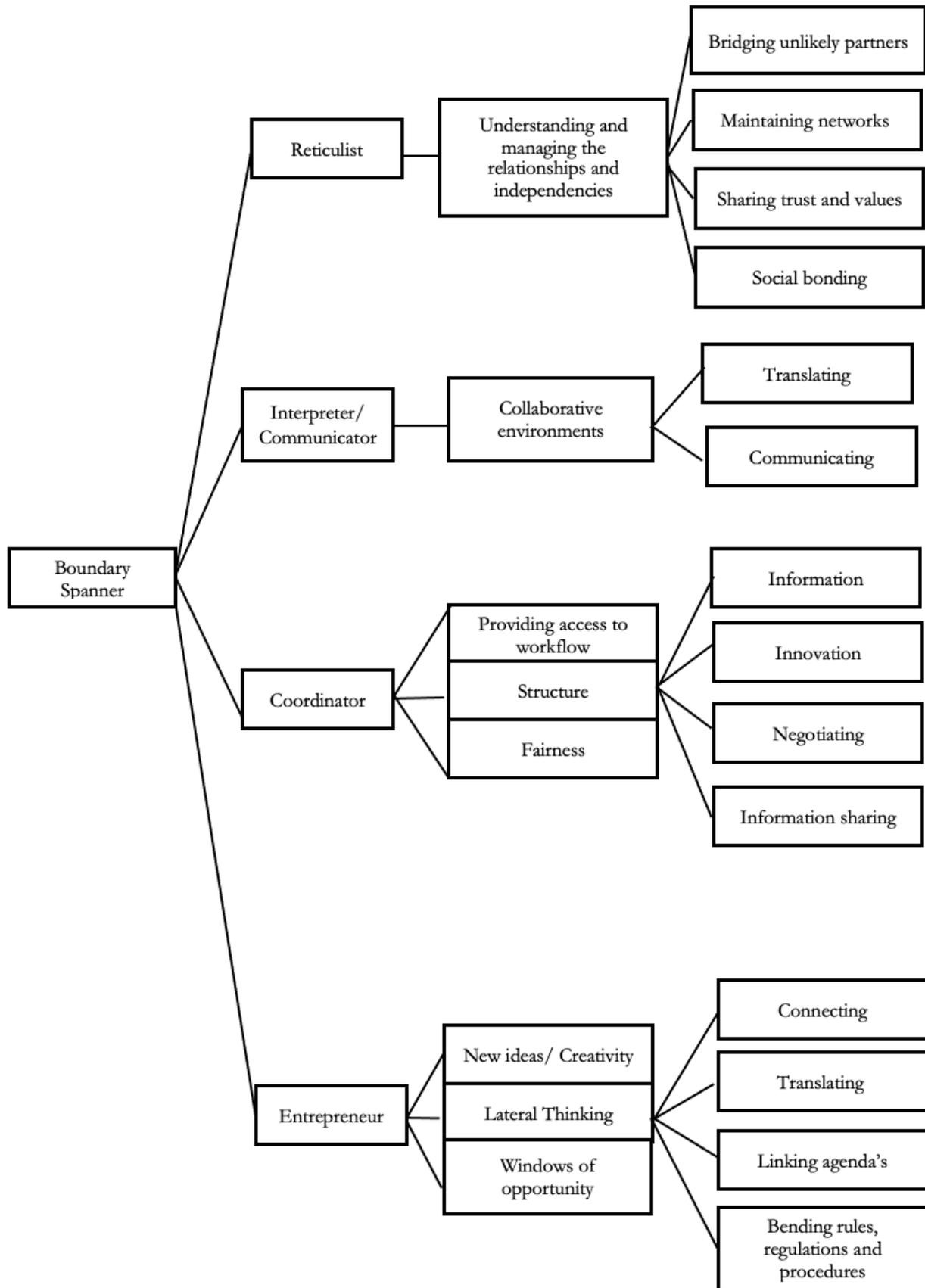
- Straub, A., Prins M., Hansen R. (2012.) Innovative solutions in Dutch DBFMO Projects. *Engineering Schematic Scholar*.
- Van den Brink, M., Edelenbos, J., Van den Brink, A., Verweij, S., Van Etteger, R., & Busscher, T. (2019). To draw or to cross the line? The landscape architect as boundary spanner in Dutch river management. *Landscape and Urban Planning*, 186, 13–23.
- Williams, P. (2012). *Collaboration in Public Policy and Practice: Perspectives on Boundary Spanners*. Bristol: Policy Press. Retrieved on February 26, 2021, at <https://search-ebshost.com.proxyub.rug.nl/login.aspx?direct=true&db=nlebk&AN=430693&site=ehost-live&scope=site>.
- Williams, P. (2002). 'The Competent Boundary Spanner', *Public Administration*, 80(1), pp. 103–124. doi: 10.1111/1467-9299.00296.
- Yin, R.K. (2014). (*Case Study Research Design and Methods*. 5th ed. Los Angeles: Thousand Oaks. Sage.

Appendices

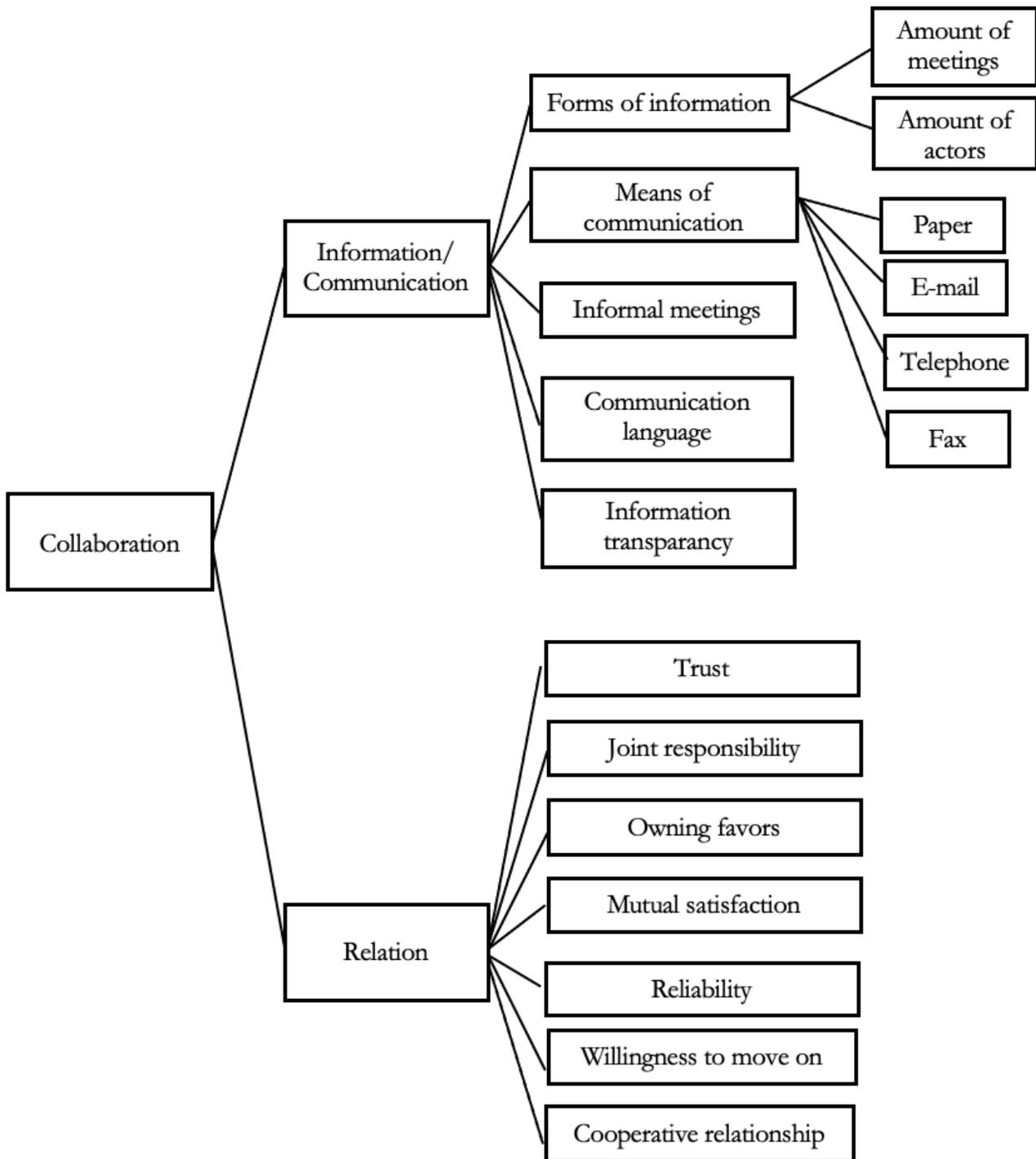
Appendix 1: Deductive code tree PPPs



Appendix 2: Deductive code tree Boundary Spanners



Appendix 3: Deductive code tree Collaboration



Appendix 4: Inductive code book

Concepts	Code groups	Codes
PPPs Characteristics	General	Phases
		Actors
	Problems in the project	No communication
		Time
		Money
	Unknown information	
Boundary Spanner	Activities	Conflict control
		Giving leadership
		Using own knowledge
		Ideology
		Making decisions

Appendix 5: Interview Guide

Introductie

Hallo, mijn naam is Laura Fransen, ik ben 22 jaar oud en zit in de afrondende fase van mijn Bachelor's degree van de studie Spatial Planning and Design, (Faculteit der Ruimtelijke Wetenschappen) te Groningen. Allereerst wil ik u hartelijk danken voor uw tijd en medewerking aan dit onderzoeksproject.

Daarnaast wil ik u vragen, of u er mee akkoord gaat dat dit gesprek wordt opgenomen voor verwerkingsdoeleinden. Mocht u enige vragen en/of opmerkingen hebben, dan kunt u ze gerust tussendoor stellen. Als laatste wil ik u verzekeren dat u op elk moment het interview kan verbreken, indien u dit wenst.

Heeft u nu al vragen en/of opmerkingen?

Organisatievorm

1. Kunt mij wellicht iets vertellen over uzelf en over het bedrijf waar u voor werkt?
2. Hoe bent u betrokken geraakt bij het project?
3. Vindt u dat een Publiek-Private Samenwerking een goede vorm was voor dit project?
4. Vindt u het contract vorm van DBFM het meest geschikt voor dit project?

Vormen van samenwerking in kwantitatieve zin

5. Hoe was het contact geregeld tussen de Publiek en Private organisatie in de aanbestedingsfase,
6. In welke fase was uw betrokken?
 1. de uitvoeringsfase en
 2. de exploitatiefase?
7. Was er sprake van regelmatige contact binnen die organisatie?
 1. En hoe, werd de informatie uitgewisseld naar de verschillende organisaties?
8. Was er sprake van informele meetings en hoe kwam dit tot stand?

Vormen van samenwerking in kwalitatieve zin

9. Welke onderdelen vindt u belangrijk binnen de samenwerking tussen de Publiek en Private organisatie?
10. Wat vond u goed gaan tijdens de samenwerking van het project?
11. Wat ontbrak er tijdens deze samenwerking?
12. Was er sprake van transparantie binnen de samenwerking tussen de Publiek en Private organisatie?
13. Was er sprake van risicospreiding en wederzijds vertrouwen tussen de Publiek en Private organisatie?

Boundary Spanners detectie

14. Wie waren er verantwoordelijk voor om de samenwerking in goede banen te leiden?
15. Zijn die mensen er speciaal voor ingehuurd/aangewezen, en hoe werd dit georganiseerd?
16. Hoe had deze samenwerking beter kunnen verlopen?

Boundary spanners activities

17. Hoe heeft u ervoor gezorgd dat uw functie/rol de samenwerking heeft verbeterd?
18. Hoe heeft uw kennis en ervaren geholpen aan een betere samenwerking?
19. Zijn er nog andere aspecten die u heeft gedaan dat deze samenwerking goed was verlopen?

Afrondende vragen

20. Vind u dit project gezien als geslaagd?
21. Wilt u nog wat kwijt over het project?

Dank u wel voor al uw antwoorden en toelichtingen. Heeft u wellicht nog vragen en of opmerkingen? Gaat u nog steeds akkoord met dat dit interview gebruikt kan worden voor verwerkingsdoeleinden voor die onderzoek?

22. Heeft u nog een idee wie ik nog kan benaderen, die ook invloed of een samenwerking had in dit project?
23. Zou u het goed vinden, om wellicht een tweede interview te geven, wanneer ik tijdens het proces van dit onderzoek nog met vragen kom?

Appendix 6: Consent Form

Toestemmingsformulier van deelname

Onderzoeksproject: Bachelor's project 2021 Spatial Planning and Design

Universiteit: Rijksuniversiteit Groningen, Faculty of Spatial Sciences

Onderzoeker: Laura Fransen

Title: The use of Boundary spanners for a better collaboration in a Public Private Partnerships
Case study of de Tweede Coentunnel

Geachte Deelnemer,

Allereerst wil ik u van hartelijk bedanken dat u de tijd heeft genomen om deel te nemen aan dit onderzoeksproject. Het doel van dit onderzoeksproject is om inzicht te krijgen in hoe de rol van een boundary spanners betere samenwerking kan creëren in een Publiek-Private Samenwerking. Daarbij wordt gekeken naar het infrastructuurproject: De Tweede Coentunnel in Nederland. Op deze manier wil ik u informeren over het verloop van uw deelname.

Het interview zal circa 30 minuten, afhankelijk van lengte van de antwoorden en de eventuele nieuwe vragen die er kunnen ontstaan. Daarnaast zal dit gesprek online gevoerd worden, omdat wij genooddaakt zijn de maatregelen van Covid-19 in acht te nemen. Ook zal het gesprek opgenomen en getranscribeerd worden om ze te analyseren en antwoord te geven op de onderzoeksvraag voor dit onderzoeksproject. Daarnaast heeft u de mogelijkheid om het transcript te ontvangen om te controleren om feitelijke onjuistheden.

Voor verdere opmerkingen en vragen kunt u contact opnemen met

Laura Fransen

l.fransen.1@student.rug.nl

0627337573

Hierbij verklaar ik dat:

Ik geheel vrijwillig bereid ben aan dit onderzoeksproject mee te doen JA/NEE

De uitkomsten van dit interview verwerkt mogen worden in het onderzoeksproject. JA/NEE

Toestemming geef om het interview op te laten nemen door middel van de opnamesoftware voor verwerkingsdoeleinden. JA/NEE

Toestemming geef om mijn naam te gebruiken in het onderzoeksproject. JA/NEE

Wanneer NEE:

Een pseudoniem gebruikt kan worden

(Voorbeeld: respondent 1)

JA/NEE

Naam van deelnemer van interview.....

Email (*voor eventuele ontvangst van transcript*)

Datum
.....

Handtekening.....