



COLLABORATIVE IDENTITY IN PROJECT ALLIANCES

IMPROVING COLLABORATION THROUGH
COLLABORATIVE IDENTITY FORMATION

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 **TU Delft**

COLLABORATIVE IDENTITY IN PROJECT ALLIANCES: Improving collaboration through collaborative identity formation

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PREFACE

This graduation research in front of you is the final piece of my TU Delft puzzle: a six month during research in order to obtain the master degree in MSc Construction Management and Engineering. A puzzle that was finished in quite another way than anticipated. The whole research was performed from my tiny home-office due to the closing of the university as a result of Covid-19. But unexpected events can set you back or set you up, it is all a matter of perspective and I am sure I will never forget this period.

Although I have always been fascinated by science, I always had a large interest for the human aspect as well. The topic of this research, improving collaboration within project alliances through forming a collaborative identity, therefore matched my interests completely. A project can be designed perfectly, but as long as the human aspect is not taken into account, it is doomed to fail. Collaboration is one of the strengths of project alliancing and therefore an important subject which deserves more attention. Because bringing together different backgrounds in order to share knowledge and experience might seem promising, but does not guarantee successful collaboration.

*“Coming together is a beginning,
Staying together is progress,
and working together is success.”*

- Henry Ford

I would like to thank my graduation committee from the Delft University of Technology for their support and guidance during these months. Graduating from home provided me with some challenges, but you helped me to overcome those and to finish my thesis within my planned timeframe despite of the extraordinary situation we were all in.

Marian, thank you for listening to me when I did not know how to proceed and always providing me with new energy in order to keep improving myself. Pedram, thank you for the time you took for the needed brainstorm sessions when I did not know what to do. Although they sometimes left me with more questions than before, they always made me think a step further and helped me improve. Ad, thank you for your constructive feedback during the meetings and for providing directions. But most of all I would like to thank you for your positivity, which always motivated me to work hard. Without the help of all of you, my research would have not been at the level it is today.

Furthermore I would like to thank my family and friends for your trust and support during this period. A special thanks to Toine, Judith and Nadine for always listening to my endless questions and chatters about my subject and for providing me with the occasionally highly needed pep-talks in order to overcome my insecurities during this process.

*Chiara Ligthart
Rotterdam, February 2021*

EXECUTIVE SUMMARY

As a result of the high failure costs and many project delays in the construction industry, collaborative contracts emerged in an attempt to improve project performance. The project alliance was one of them. A project alliance is a contracting arrangement between multiple parties, that agree to work collaboratively on a common goal in good faith, by means of a shared risk and reward system. This integrative way of working requires a focus on the human aspects, because people from different organisational cultures are brought together. This focus usually vanishes in practice, under the pressure of time and budget constraints, although it is known as one of the success factors of a project alliance. In order to realize this success, one aspect that requires this focus, is forming a collaborative identity within the new alliance organisation. A strong collaborative identity improves collaboration within the project alliance, which on its turn improves project performance. A collaborative identity refers to the collaborative values and working practices that form the organisational self-image and differentiates the organisations from others. It provides a feeling of belonging for each individual within the project alliance. However, there is a lack of information on what is required in order to build a collaborative identity within project alliances. In order to contribute to the body of knowledge on collaborative identity formation, this research answered the following research question:

How can collaboration within a project alliance be improved through a focus on the formation of collaborative identity?

The research objective was to provide insight into the most important collaborative values and working practices that are required to form collaborative identity and to provide recommendations to new project alliances. To address the main research question and objectives, two research methods were employed: a literature review and Delphi study. A Delphi study is an iterative research method to collect expert judgements by using multiple questionnaires, with the goal of reaching consensus. It is seen as an appropriate research method in a field of uncertainty or in case of lack of empirical evidence on the topic of interest.

Given the fact that only one study specifically addresses the collaborative identity construct, collaborative values and working practices were identified through the broader project alliancing and (construction) project collaboration literature. The literature study was conducted first to elaborate on the research context and to identify the set of collaborative values and working practices that might contribute to the formation of collaborative identity. This resulted in a conceptual list of ten collaborative values and 55 working practices. Thereafter, a Delphi study was implemented with 40 experts from two Dutch project alliances to obtain experts' perspectives and consensus on the most important working practices and collaborative values. A scoping round was held as the first step of the Delphi study, involving two Dutch experts on the field of collaboration, in order to verify the definition and the need for collaborative identity as well as to discuss the conceptual list of collaborative values and working practices. The comprehensibility of the set was also validated by means of a third expert, a participant of an ongoing project alliance. The Delphi study continued by two rounds of subsequent online questionnaires.

The focus of the first round was to determine the importance of all working practices as well as to gather information about their execution during both project alliances. This was done through an online survey in which the participants were asked to rate all working practices on a 5-point Likert scale. After round one, 31 participants filled in the questionnaire. Both project alliances used a positive line of answering and both agreed on the importance of 71% of the working practices, by scoring them either important or very important.

To gather more information on the relative importance of working practices, round two was executed by means of the constant sum method. The participants were also asked to score the importance of collaborative values based on the constant sum method. During round two, a total of 21 participants filled in the questionnaire.

A relevant finding after round two was that both project alliances defined different collaborative values as well as working practices as the most important ones when looking at the top ten. The top five collaborative values, based on the average scores, consisted of the same values in a different order, see Table 1. Trust and honesty seem to be most relevant for both project alliances.

Table 1 Top five collaborative values per project alliance

GRalliantie		Markermeerdijken	
	Collaborative value	Average score	
1	Transparency / openness	14,0	1 Trust
2	Honesty	13,2	2 Honesty
3	Trust	12,1	3 Best-for-project
4	Best-for-project	10,3	4 Transparency / openness
5	(shared) Commitment	9,8	4 (shared) Commitment

The final scores for the working practices were based on the average scores for the collaborative values as well as the working practices. The score for the collaborative value was thereby weighed more heavily than the score for the working practice, as the collaborative value was seen as a relatively more relevant contributor. A top ten was created for both project alliances, and compared to each other, see Table 2.

Table 2 Comparison of top ten working practices per project alliance

No.	GRalliantie	Markermeerdijken
1	E3 Invest time into each other	E3 Invest time into each other
2	E5 Reflection and self-assessment	J1 Clear definition of roles and responsibilities (specifically as part of contract)
3	H3 Stimulate transparent, open and frequent communication	E5 Reflection and self-assessment
4	H1 Sharing information and resources	C2 Align goals and identify joint goals
5	C2 Align goals and identify joint goals	J6 Clear coordination from management
6	J2 Clear definition of roles and responsibilities (specifically <i>not</i> as part of contract)	J10 Being positive
7	H2 Sharing knowledge	F2 Create a shared location for colleagues to work together on location
8	C1 Daring to express concerns about the new way of working	F4 Invest time into each other
9	J12 Cogitate and plan the next phases early/earlier	J4 Long-term orientation (for the duration of the project alliance)
10	F2 Create a shared location for colleagues to work together on location	J12 Cogitate and plan the next phases early/earlier
		F1 Schedule and maintain face-to-face interaction

Five out of the ten working appeared in both top lists, however in a different order. The working practice E3 invest time into each other, belonging to the collaborative value of trust, was considered

the most important by both project alliances. E5 reflection and self-assessment, also belonging to trust, was a second one that seems to be very important for both project alliances, by reaching a second and third score for the GRalliantie and Markermeerdijken respectively. This might indicate that these are important for other project alliances as well.

This research proposed an advice for both ongoing project alliances under investigation, the Graaf Reinald Alliantie as well as the Alliantie Markermeerdijken, in an effort to improve their collaborative identity. This advice is based on the two most important working practices that did, following this research, not reach consensus on its execution. These working practices are therefore seen as an opportunity.

An advice is also given to new project alliances that intent to build a strong relationship, in the form of a six-step guideline:

- I. Define desired culture/identity in line with alliance goals
- II. Determine important collaborative values
- III. Determine maturity of collaborative values
- IV. Determine important working practices
- V. Implement working practices
- VI. Keep track of collaborative identity

The guideline provides the steps that need to be taken when building the new relationship through forming a collaborative identity, by combining inside organisational information with the collaborative values as well as working practices that were provided by this research.

This research implies that there is not one way of forming a collaborative identity. A combination of different working practices and collaborative values is required, which seems to differ for different project alliances. Although some working practices do appear in the top lists of both project alliances within this research, the differences are significant. Therefore, further research is recommended with multiple different project alliances from different institutional contexts and a larger participant set. Another recommendation is to investigate the actual contribution of the working practices to the project performance versus the perception of importance by the Delphi participants, since this research did not include this possible information gap.

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PART

CONTEXT OF THE RESEARCH

This part will outline the context of the research by introducing the subject including some theoretical background, elaborating on the research design and diving into some important definitions.

1 INTRODUCTION

This introducing chapter will shed light on the context that the research is placed in in Section 1.1 after which it describes the problem definition for this research in Section 1.2 and the research objective in Section 1.3. The following section thereafter, Section 1.4, presents the research questions to achieve the chosen research objective. Section 1.5 describes the boundaries that this research is performed within and Section 1.6 outlines the structure of this thesis report.

1.1 Research context

The construction industry in the Netherlands is booming and many new projects are initiated, under construction or being finalized. However, the construction industry is known for its high failure costs (ABN AMRO, 2019; Noordhuis, 2015), many project delays and wrongly allocated risks and responsibilities (Marktvisie, 2016; McKinsey & Company, 2017). It is widely accepted that large construction projects take longer than planned and costs are higher than expected. A research from PwC (2013) to 32 large construction projects, showed a cost overrun for 94% of the projects (see Figure 1). Staying within budget seems to be the exception, instead of the

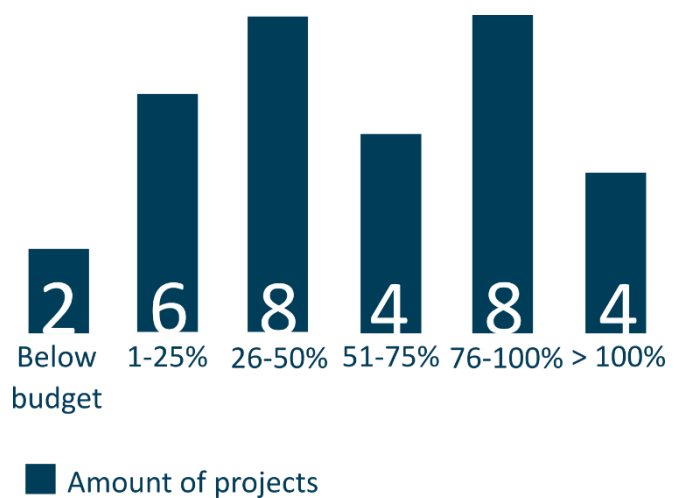


Figure 1 Research to cost overruns amongst 32 large construction projects (source: PwC).

rule. The biggest contributors to failure costs are a lack of communication and poor exchange of resources, a lack of attention to the feasibility of the design, insufficient quality and changes to the plan of action or design during the realisation (van den Berg & Goelema, 2015). The ongoing high failure costs and project deliveries have led to a poor overall project performance (Chen et al., 2012).

In an attempt to improve project performance and diminish failure costs, short-term relationships became less popular in favour of collaborative relationships and mutual trust (Suprpto, 2016). Other project factors such as delivery time, quality and safety have increased in importance (Chini et al., 2018), leading to a pressure on collaboration between the different parties. The tension between the client and the contractor nowadays seems to be the central focus (Marktvisie, 2016), instead of the realization of their work. Suprpto et al. (2015) argue that the common negative outcomes of projects are related to inadequate collaboration and lack of attention to the social aspect of it. Rose & Volker (2013) also argue for an emphasis on collaborative and integrated delivery of construction projects, due to the rapid globalization of the construction industry. Chao-Duvis (2018) states that the project-specific challenges, inherent to innovative and complex projects, also demand close collaboration when it comes to planning, budget or stakeholders. Improved collaboration will enhance lower costs and products of better quality (Hermans et al., 2018). As a response for the demand for collaborative contracting, amongst others the project alliance came to life, of which the first Dutch example in the construction industry was the Waardse Alliantie in 1999.

The project alliance was, next to project partnering and integrated project delivery, one of the relational Project Delivery Methods (PDMs) that was developed to diminish, amongst other reasons, the frustrations of opportunism that arose from traditional contracts. There also was a demand for closer integration and improved collaboration when it came to risky, innovative construction projects

and it was found that performance could be improved by joint risk management (Pertti Lahdenperä, 2012). Therefore, the application of the project alliance in the infrastructure industry seems to be promising, because of its mostly large and complex projects. Collaboration is one of the most important aspects of the project alliance, but also a very challenging one, because several parties are obliged to collaborate while they have never done this before. Besides, all parties represent their parent organisation. Hietajärvi & Aaltonen (2018) state that therefore a project alliance requires strong inter-organisational integration by forming a so-called collaborative identity, specifically for the project alliance. The formation of collaborative identity concerns the collaborative values and working practices that distinguish the project organisation from another (Hietajärvi & Aaltonen, 2018). However, there is a lack of understanding on this concept in literature as well as practice in the Netherlands. This can be shown by an example of the first project alliance in the Netherlands, the Waardse Alliantie. Even though the term collaborative identity was not specifically used, the formation of a new culture within the alliance is stated to be one of the most important success factors for this infrastructure project (Molendijk, 2016). Molendijk (2016) states that a lot of effort was put into creating a specific identity for the alliance which was different from the mother organisations, so the team could start off with a blank page based on respect, co-operation and trust. However, he also mentions that this formation took about four years, because it was not clearly known yet how to approach this desire of forming a new culture. Since project delays are already problematic and the collaborative identity is stated to be such an important aspect, taking about four years to form a collaborative identity is not effective.

Therefore, this research will dive into the concept of forming a collaborative identity within project alliances in the Netherlands, by analysing what is exactly needed to do so.

1.2 Problem definition

Collaborative identity seems to be an important aspect when it comes to collaboration in project alliances. However, there is a lack of understanding concerning which collaborative values and working practices are required to form a collaborative identity. Hietajärvi & Aaltonen (2018) performed a research on which characteristics of a temporary organisation influence identity formation activities. However, this research described activities found in a single case study of the first project alliance in Finland and did not highlight the needed values nor working practices. This results in lacking information as to which collaborative values and working practices are needed to form a collaborative identity within project alliances in the Netherlands.

The problem description is summarized as follows:

*The project alliance came to life to solve cost and time overruns in the construction industry. However, the project alliance is not regularly used in the Netherlands and many factors to actually achieve its benefits are still unknown. **There is a lack of understanding concerning the collaborative values and working practices, that are required to form a collaborative identity within the alliance team.** This while integration of the project team is crucial for the project performance.*

1.3 Research objective

The objective of this research is to define the collaborative values and working practices that are required to form collaborative identity within a project alliance, in order to improve collaboration.

This will help project alliances by:

- Outlining the important collaborative values and working practices that should be paid attention to when forming collaborative identity;
- Highlighting the collaborative values and working practices that require (more) attention.

Besides the practical objective, furthermore this research will contribute to scientific research by filling the knowledge gap that exists around collaborative identity. It will explain the values and working practices that are required to build collaborative identity within a project alliance and will propose a plan of action for the participating project alliances to improve their collaborative identity, as well as propose a plan for new project alliances.

1.4 Research questions

The research objective that followed from the problem definition, is reached by answering a set of research questions. The main research question is:

How can collaboration within a project alliance be improved through a focus on the formation of collaborative identity?

In order to answer the main research question, several sub-questions are answered, which are shown below. The approach on how to answer these questions is explained in Chapter 3.

SQ1 What defines client-contractor collaboration within a project alliance?

SQ2 What constitutes collaborative identity within a project alliance?

SQ3 Which collaborative values are required to form collaborative identity within the alliance organisation?

SQ4 Which organisational working practices are required to form collaborative identity within the alliance organisation?

SQ5 In what way can this be interpreted and implemented by an alliance organisation that aims to form collaborative identity?

1.5 Research boundaries

The boundaries that this research was performed in, including an explanation of those choices, are defined in Table 3.

Table 3 Research boundaries

	In scope	Out of scope	Reason
Sector	Infrastructure industry	Other industries	To narrow down the research context and most frequent used sector for project alliancing in the Netherlands
Location	Netherlands	Other countries ¹	Reachability and availability of project alliance examples to work with
Project delivery method	Project alliances	All other project delivery methods	Collaboration is of great importance within project alliancing

¹ Other countries are out of scope for the objective of this research, however foreign literature may serve as input or be used as an example.

Focus level of analysis	Organisation al and team level	Separate team member level	Because collaboration happens at organisational and team level, including personal identities becomes too complex for this research
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1.6 Thesis outline

This thesis will describe the research to the important collaborative values and working practices to form collaborative identity within project alliances. The research design, which is divided into three parts, will firstly be elaborated on in Chapter 2. The participating project alliances are introduced as well. Chapter 3 will start by outlining the context of the research with elaborating on the concept of project alliancing and this will be linked to collaboration and the definition of collaborative identity in Chapter 4. This chapter will end by a first version of collaborative values and working practices that might contribute to collaborative identity formation. Chapter 5 elaborates on the empirical research findings, followed by a discussion in Chapter 6. Chapter 7 proposes an approach for the improvement of collaborative identity within the two participating project alliances and a general approach for collaborative identity formation within new project alliances. This will be followed by an overall conclusion in Chapter 8 and recommendations for further research in Chapter 9.

2 RESEARCH DESIGN

The main research question was answered by finding an answer to the five sub-questions (SQs). These questions were answered by means of a combination of theoretical and empirical research. The research was divided into three parts:

- I. Construct context of the research (sub-questions 1 and 2);
- II. Defining values and working practices for collaborative identity (sub-questions 3 and 4);
- III. Propose a plan of action for building and improving collaborative identity (sub-question 5).

A graphical overview of the research approach can be seen in Figure 2, which is explained in the next sections.

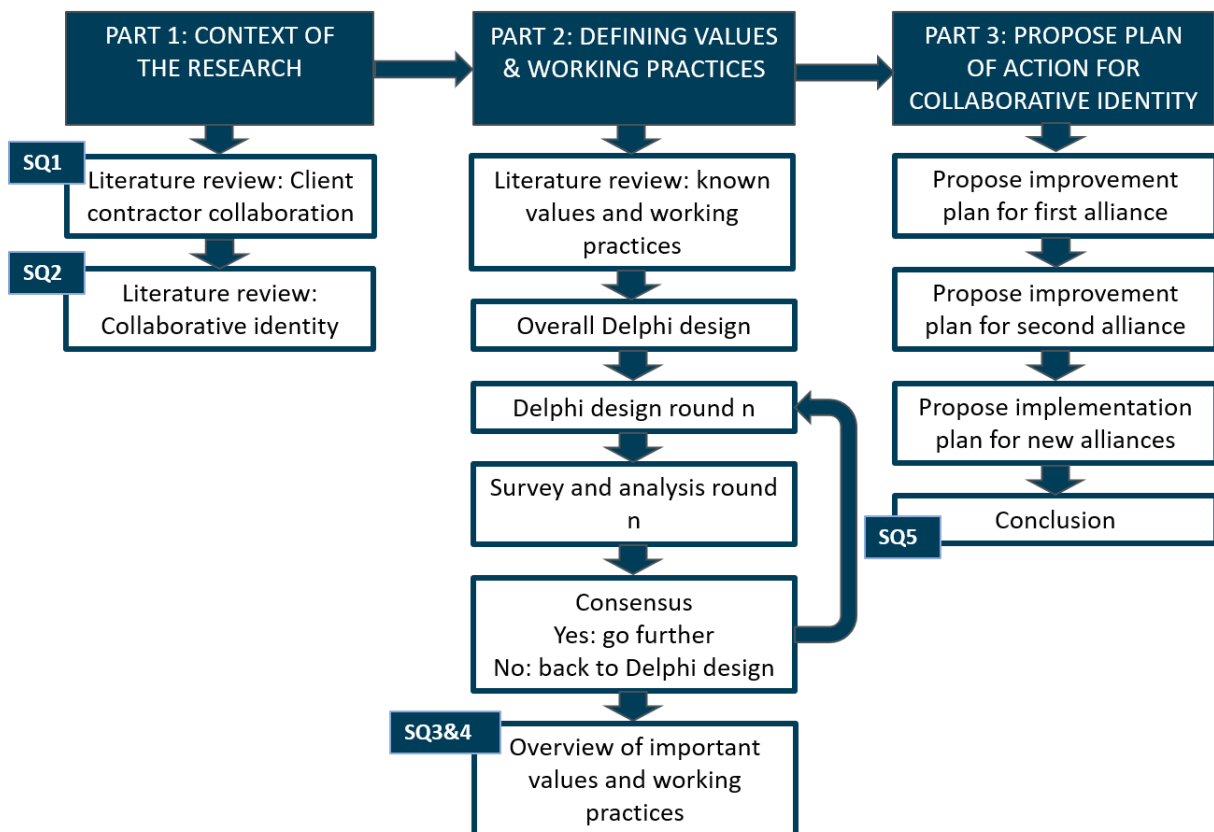


Figure 2 Graphical representation of the research approach

2.1 Part one: context of the research

The first two research questions focused on providing a theoretical context and were therefore answered by means of a literature study. The context was created by analysing several relevant sources on the subjects. This information was needed to serve as a basis of understanding and a boundary for the rest of the research. Therefore, the first sub-question elaborated on client-contractor collaboration within a project alliance:

SQ1 What defines client-contractor collaboration within a project alliance?

The concept of a project alliance was firstly elaborated on by examining which characteristics are typical for project alliances, how project alliances evolved, and which project alliances were executed in the Netherlands. Next, the context converged by researching what requirements were set

specifically to the aspect of collaboration within a project alliance and which parties exactly are involved within this collaboration. A definition for client-contractor collaboration was proposed and the six categories defining collaborative relationships by Suprpto, Bakker, Mooi, et al. (2015) were used as a framework to build the concept of client-contractor collaboration within a project alliance.

When the context for collaboration within a project alliance was discussed, the next important concept to define was collaborative identity. This was investigated by answering the second sub-question:

SQ2 What constitutes collaborative identity within a project alliance?

To answer this question, the first important aspect to define collaborative identity. The concept was elaborated on and a definition was given, before moving on to placing collaborative identity in the context of a project alliance.

The data for the literature review was mostly found through Google Scholar or the TU Delft library. The appropriate information was found in books, papers, theses, newspaper articles and journal articles. The keywords that were used included:

- Managing project alliances
- Alliance contracting in the Netherlands
- Multi-party contractual arrangements
- Client-contractor collaboration
- Public-private partnerships
- Project alliances in construction
- Collaborative identity
- Relational norms
- Collaborative relationship
- Client-contractor collaboration
- Organisational identity
- Identity paradox
- Collective identity
- Social identity

The literature that is cited most or the literature that is most recent was seen as most valuable.

2.2 Part two: defining collaborative values and working practices

This part answers sub-questions three and four and concerns the values and working practices that are needed to form the collaborative identity:

SQ3 Which collaborative values are required to form collaborative identity within the alliance organisation?

SQ4 Which organisational working practices are required to form collaborative identity within the alliance organisation?

This part of the research was executed by using both theoretical and empirical research, by means of a literature review, followed by the Delphi method (used interchangeably as Delphi technique or just Delphi), which is an iterative research process to collect expert judgements by using questionnaires (Skulmoski et al., 2007). The Delphi method is thoroughly explained in the following sections.

A panel of experts was chosen over individual research because it provides a wide range of information to ensure that all important aspects are taken into account. Besides, Delphi does not require physical research, which was easier in terms of planning for both the researcher as well as the participants and rules out the possibility of problems due to Covid-19. This research method was also found to be appropriate for this study because it is stated to be the most advantageous in a field of uncertainty or in case of lack of empirical evidence (Powell, 2003) or when there are no correct answers or hard facts (Donohoe & Needham, 2009), which was the case.

The goal of this part of the research was to discover the set of most important collaborative values and working practices. A conceptual list was first formed by a literature review covering the concept of collaboration within the construction industry, due to a lack of information on the construct of collaborative identity. The collaborative values were firstly identified by identifying values that were directly linked to successful collaboration or project alliancing.

Subsequently, literature was reviewed on working practices that contribute to project alliance success or successful project collaboration in general. A conceptual list of working practices was created based on nine relevant sources. Thereafter, the working practices were coupled to the collaborative values that they contribute to. This coupling is based on literature as well as author interpretation. In case a working practice could contribute to multiple collaborative values, it was coupled to all the options.

The final list was constructed together with experts in the field, to combine literature with practice. This was done through interviews with multiple experts, as is discussed in the subsequent elaboration of the Delphi method.

2.2.1 Explanation of the Delphi method

The chosen research method, the Delphi method is explained by first elaborating on what the Delphi method is and then discussing the goal of this specific Delphi method.

The Delphi method is a research method named after the ancient Greek oracle who predicted the future (Donohoe & Needham, 2009; Thangaratinam & Redman, 2005). It is an iterative process to collect expert judgements by using questionnaires (Skulmoski et al., 2007) with the goal of reaching the most reliable expert consensus (Okoli & Pawlowski, 2004; Powell, 2003), where the experts represent the Delphi oracle.

The consensus follows from multiple rounds of questionnaires with several experts in the field. For each round, the new questionnaires are interspersed with comments and feedback by the other experts, which encourages the experts to reassess their initial answers based on this new information (Hsu & Sandford, 2007b). The iterations should continue until results no longer improve or when a predefined percentage of consensus is reached (Donohoe & Needham, 2009; Okoli & Pawlowski, 2004), although it is also stated that three iterations should be sufficient to reach consensus (Hsu & Sandford, 2007b; Thangaratinam & Redman, 2005). Thangaratinam & Redman (2005) also state that repetition of rounds may increase attrition rates because of fatigue by respondents. A basic representation of the Delphi method can be seen in Figure 3.

The first round usually is a scoping round, usually by means of an unstructured questionnaire or interview (Powell, 2003), which gives the opportunity for expert input on the matter in a qualitative way. This information is used for the next rounds, which are executed by using structured questionnaires leading to quantitative data to be analysed using ranking techniques (Powell, 2003).

The participants of the Delphi research are anonymous (Donohoe & Needham, 2009), which prevents counterproductive group dynamics to occur (Thangaratinam & Redman, 2005) and reduces the effects of dominant individuals within the group (Hsu & Sandford, 2007b; Powell, 2003). The anonymity also provides the experts with the freedom of presenting alternative viewpoints, leading to high quality and relevant ideas to reach consensus (Donohoe & Needham, 2009; Powell, 2003).

The Delphi method should not be seen as a scientific method to generate new knowledge, but more as a process where the available information is used in the best way possible, and therefore should not be validated with the same criteria as hard science (Powell, 2003). To ensure validation, the researcher may request validation by the participants on the researcher's interpretation, which is

possible because the experts are not anonymous to the researcher (Okoli & Pawlowski, 2004). The success of a Delphi study is also reliable on a carefully planned research, based on a set of general procedures (Donohoe & Needham, 2009). One of the important steps during the Delphi design is to make Critical Design Decisions (CDDs) (Donohoe & Needham, 2009), which is discussed in Section 2.2.4.

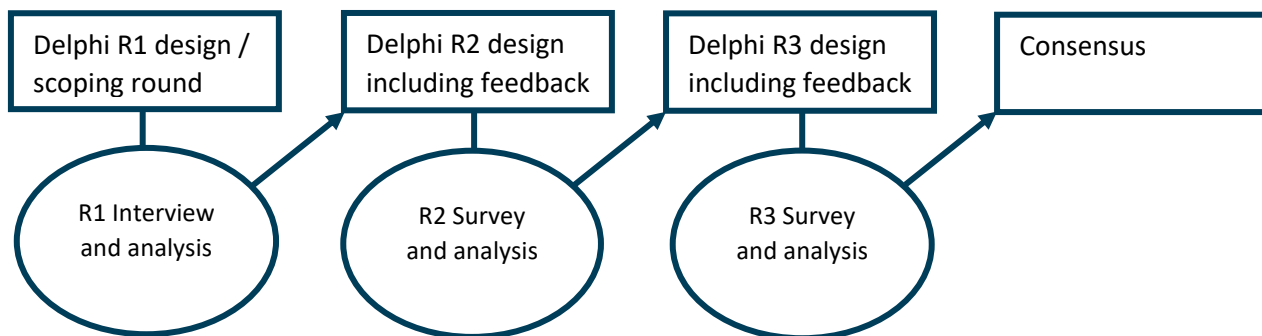


Figure 3 A basic representation of the Delphi method

2.2.2 Goal of the Delphi study

The goal of the Delphi study was to define which working practices and collaborative values are important when forming collaborative identity, by questioning expert opinions and searching for consensus on those subjects.

The questionnaires were designed in such a way that the end result was an ordered list of working practices and collaborative values that are required to form collaborative identity as judged by experts within the field. These topics are related to forming collaborative identity and should therefore be related to “who we are becoming as an organisation”, “what we want to be” and “how we differ from other organisations and how we are similar (Hietajärvi & Aaltonen, 2018).

The goal for the questionnaires was to:

- Extract which working practices are seen as important for forming collaborative identity per project alliance, and following from this, potential differences between both project alliances;
- Extract differences in opinion of importance between the different expert groups within the same project alliance.

The goal of the first questionnaire was to create an overview of what the participants find important working practices for forming collaborative identity. The set-up of the first questionnaire is shown in Section 5.2. The questionnaires were distributed through Google Forms, which was easy to use for both the researcher and the participants. The questionnaires were held in Dutch, to limit possible language barriers, so each of the working practices was translated to Dutch. The second questionnaire was based on the outcomes of the first one. Therefore, the second questionnaire design is discussed in Chapter 5.

2.2.3 Delphi method step by step

Multiple sources confirm that a carefully planned and executed Delphi study results in a successful study (Donohoe & Needham, 2009). Thus even though the Delphi method is highly flexible to fit the required application, it should also strictly follow some generic procedures in order to reach reliable results (Donohoe & Needham, 2009). The following step by step method is used for this research:

1. Define the problem statement including an initial position statement such as a theory or framework (by means of literature study).
2. Design Delphi research, including the CDDs.

3. Define expert selection criteria, determine suitable experts and contact experts.
4. Create scoping round interview.
5. Execute and analyse scoping round interview.
6. Create Delphi questionnaire for round 1.
7. Distribute and analyse Delphi round 1 questionnaire.
8. Create Delphi questionnaire for round 2.
9. Distribute and analyse Delphi round 2 questionnaire.
10. Verify, generalize and document research results including level of consensus reached.

The first step was executed before starting with the Delphi study and is elaborated in Chapter 1. The literature review resulted in a problem statement and a starting point for the Delphi study concerning the possible collaborative values and working practices. The rest of the steps follow in the next sections.

2.2.4 Critical Delphi decisions

The Delphi study can be tailor made to fit the research, however in order to provide reliable results, the methodology must be clearly described. The inclusion of a decision trail which explains important decisions such as the choice of the experts or identification of consensus levels, helps to ensure credibility of the study (Powell, 2003; Thangaratinam & Redman, 2005).

Table 4 Critical Delphi decisions for this research

CDD	Decision	Main reason
1. Scoping round	Scoping round as first round, total of 3 rounds.	Gain more in-depth understanding.
2. Maximum number of rounds or iterations	Maximum of 3 rounds, including scoping round.	Time-scope of the research & to decrease attrition.
3. Methodological orientation	Quantitative and qualitative.	Qualitative from scoping round, quantitative from other 2 rounds.
4. Criteria for consensus	Above 60%: consensus.	Commonly used objective.
5. Used scale for questionnaires and analysis	5 point Likert-scale or constant sum method.	Include information on level of agreement.
6. Number of participants	2 experts for scoping round. 20 experts per project alliance (total of 40 experts) for Delphi rounds.	Heterogeneous group asks for more participants & sufficient participation in case of attrition.
7. Expert panel selection criteria	Participants from two different project alliances from varying roles. Criteria to be determined in Section 2.4.1.	To include as many perspectives as possible.
8. Distribution and carrying out of scoping round and questionnaires	All online, scoping round interviews preparation through Google Forms and execution through online meeting platform; Delphi through Google Forms or Excel.	In person not possible due to Coronavirus & time-scope. Google Forms fits the purpose and provides the researcher with a clear overview of the given answers.

According to Donohoe & Needham (2009) the use of CDDs provides reliable and reproduceable results. Skulmoski et al. (2007) also emphasize the need for rigor by providing an audit trail, where all decisions are clearly described. This was done by means of CDDs, which can be found in Table 4. The CDDs are

a combination of important aspects that were found in literature. The reasoning behind these decisions including substantiating literature can be found below.

- **Scoping round:** The scoping round is usually the first round of questionnaires, which is unstructured and seeks for elaboration on the topic of interests by the experts (Powell, 2003). It is not always used in cases that other input is already implemented, but is strongly advised. It provides a broader range of responses (Skulmoski et al., 2007). The scoping round is not executed with the same experts as the rest of the Delphi study, since the goal for the scoping round is not to reach consensus, but to gain more insight in the definitions that are used for the questionnaires and to verify or adjust the input that is found in literature.

A scoping round was used, in order to gain more understanding on the interpretation and opinion of experts within the field concerning the topic under investigation. These were two experts that were not part of the Delphi expert panel and required less strict selection criteria. The chosen experts are discussed in Section 2.4.2.

Scoping round

To start the Delphi study, a scoping round was executed with two experts. The goal of the scoping round was to:

- Verify definition and need of collaborative identity;
- Go through the proposed list of working practices, in order to verify, reject or adjust them;
- Define a basis for the Delphi questionnaires.

The interviews were held with two interviewees that might provide relevant insight on the topic of interest. The interviewees were asked to prepare the interview online by assigning all proposed important working practices on a 3 point Likert-scale, referring if they found the given statement important, neutral or unimportant for the formation of collaborative identity. A 3 point Likert-scale was chosen because three interviewees do not provide enough statistical validity for statistical assessment of the given answers in order to use a higher order scale. Since the scoping round should also provide the possibility to revise the list, a fourth option was added, namely "statement unclear". This could be used in the case the experts were uncertain about what was used with the proposed working practices, so this could be discussed during the interview.

The preparation of the interview was done through Google Forms, which automatically sends the answers to the researcher. By letting the interviewees fill this in beforehand, the interview leaves more space to discuss relevant outcomes and ask extra questions. The interview preparation can be found in Appendix B.1. The interview itself was held online due to the Coronavirus, and was semi-structured in order to guide the interview but also leave room for extra questions and more elaborate answers. The list of working practices provided input, but was leading for the interview to leave as much room for elaboration from the interviewee's side. The prepared interview questions can be seen in Appendix B.2.

- **Maximum number of rounds or iterations:** By interspersing each new questionnaire with feedback from the previous round, consensus is reached by convergence. It is possible to execute as many rounds as needed for consensus, however it is advised to balance time, costs and fatigue of the participants (Powell, 2003). One often sees a fall in the response rate if the number of rounds increases (Skulmoski et al., 2007). Delphi requires at least two rounds, and three if the first round is open-ended (Hsu & Sandford, 2007b; Thangaratinam & Redman, 2005), which is suggested by most authors (Skulmoski et al., 2007).

The first round was an open-ended, semi-structured interview to collect more information on the topic from three different experts (see also point 1). Then two rounds followed, which was the determined maximum amount of rounds, to reach consensus on the topic. This decision was made in order to diminish attrition and due to the time-scope of this research. If consensus was not reached, the aim was to clarify the reason for not reaching consensus and recommendations for further research were given.

- **Methodological orientation:** The Delphi method is mostly used as a quantitative research method, however it can also provide understanding of rich data by using it as a qualitative method (Skulmoski et al., 2007). This also depends on the type of questions decided upon for the questionnaires.

This Delphi study focused on both quantitative and qualitative research, due to the mixture of open-ended and closed-ended questionnaires. The open-ended questions resulted in rich data, providing the author with an understanding of the interpretations of the experts, which is helpful for further research. The closed questionnaires were analysed as quantitative data in order to determine on the level of consensus.

- **Criteria for consensus:** Determining when sufficient consensus is reached is seen as a challenge (Donohoe & Needham, 2009). There seem to be no clear rules for when exactly consensus is reached and many methods are being used (Powell, 2003). The most important factor is therefore predetermining and explaining the level of consensus chosen by the author.

Consensus was reached at 60% agreement. This is an objective commonly used (Donohoe & Needham, 2009) and therefore also used for this research.

- **Used scale for analysis:** The first round interviews were open-ended and required qualitative analysis. The next rounds however required quantitative analysis due to the closed nature of the questions. Analysing the results can be done by using measures of central tendency such as means, median and mode, resulting from using the Likert-scale, which is favoured in literature (Hsu & Sandford, 2007b). A Likert-scale examines the degree of which a respondent agrees with the statement of the author, by using a n-point scale ranging from strongly disagree to strongly agree (Sekaran & Bougie, 2016). A dichotomous scale can also be used, which only asks participants for a Yes or a No to the statement (Sekaran & Bougie, 2016). The Likert-scale provides with more insight on both the direction and strength of the participant (Chyung et al., 2017), opposed to the dichotomous scale that only provides information of direction.

Since the strength of opinion was seen as valuable information for the researcher, to gain insight in the importance of the statement, the decision was made to work with a Likert-scale. Following the decision framework by Weijters et al. (2010) for selecting a response scale, the best choice for opinion measurement of a general population is a 5-point, fully labelled, Likert-scale.

In the case that the 5-point Likert-scale did not provide enough insight in the data, for example if the data skews to one side as often happens, the constant sum method would be used for the subsequent round.

Constant sum method

The constant sum method works by dividing an amount of points to the working practices, adding up to a constant sum. Figure 4 shows a visual example of the constant sum method. In this example, the points have to be divided over three working practices. The amount of points was chosen in such a way, that if all working practices were scored equally important, they can all be scored maximally 'neutral'. So in the example of three working practices, a maximum of 30 points may be divided. The points may vary between 0 and 20, where 0 is not important at all, and 20 extremely important, and the rest a gradation in between. A high score of one working practice will in this way always be at the expense of another.

Working method	Average score own alliance	Average score other alliance	Points	Points to be divided
Working method 1	Vx1	Xy1		
Working method 2	Vx2	Vy2		
Working method 3	Vx3	Vy3		
SUM			0	

Figure 4 Visual explanation of the constant sum method

- Number of participants:** There is a lack of evidence on the effect that the number of experts has on the reliability of validity of the Delphi study (Powell, 2003). Representation rather relies on the quality of the experts than on the number of experts (Thangaratinam & Redman, 2005). Group size is usually advised to be around 10-18 experts (Okoli & Pawlowski, 2004). Following Skulmoski et al. (2007) the group size relies on three aspects: heterogeneity of the sample, decision quality and type of verification. When the group of experts is homogeneous, a smaller sample may provide sufficient results. In this case, the group is kept as homogeneous as possible by choosing equal groups of experts from both project alliances, however it cannot be ignored that the experts come from two different working environments, so the group is not fully homogeneous. The decision quality has to do with the fact that decision quality increases when the sample size increases (Skulmoski et al., 2007). However, the level of processing and analysing the data increases as well, while the benefits may be marginal above a certain threshold. The larger the sample, the more verifiable the results of the research can be by internal verification. However, when time-scope is an issue, smaller samples may also be used when external verification is executed in a follow-up research (Skulmoski et al., 2007). Since Delphi does not rely on statistical output, group size does not have to be very large. It is a mostly homogeneous group and time-scope is to be taken into account so external verification is appropriate. The aim was to start with 20 experts for each project alliance. This was more than advised, in order to diminish the effect of possible attrition. The research aimed to start with a total sample of 40 participants from two different project alliances. Possible effects of attrition are elaborated on in Section 2.2.5.
- Expert panel selection criteria:** Choosing the experts is the most important step in the process of the Delphi study (Hsu & Sandford, 2007b; Okoli & Pawlowski, 2004; Powell, 2003; Skulmoski et al., 2007). It is important to study a diverse group of experts to include as many perspectives as possible (Powell, 2003). Bias may result from poor expert selection and therefore it is advised to describe the used criteria for the research (Thangaratinam & Redman, 2005).

People from two different project alliances (Alliantie Markermeerdijken and Graaf Reinald Alliantie) with different functions were used for this research. The expert panel criteria will be further discussed in Section 2.4.1.

- **Distribution and carrying out of questionnaires:** Since the first round is usually open-ended, it is sometimes executed as an interview in real life to increase the dialogue and gain more information. However, this is no option due to Covid-19. The closed questionnaires are usually distributed online, to increase the geographical scale and reachability of experts.

All questionnaires were distributed online, including the interviews of the scoping round. This is due to the Coronavirus and due to time availability of the experts and the researcher.

The contact for the Alliantie Markermeerdijken went through one contact person due to privacy reasons. Although the author did not have personal contact with the participants, it was expected that they would be highly motivated to cooperate by a colleague distributing the questionnaires. The contact with the GRalliantie was personal and so the author could hold short lines with each participant.

2.2.5 Disadvantages and proposed mitigations

The Delphi method's reliability is criticized by some researchers, based on some disadvantages that are inherent to this research method. In order to improve reliability, mitigation measures were proposed and implemented in the research strategy before starting the research. The disadvantages, including an explanation and the proposed mitigation measures can be found in Table 6.

The disadvantage of attrition highly affects the reliability of the research and therefore requires extra explanation. As explained, an expert panel of 10-18 experts is usually advised (Okoli & Pawlowski, 2004), but several studies show different sizes of the panels. In order to decrease the effects of attrition and thereby the effect on the research reliability, the decision was made to start with a higher number of experts per project alliance. The research was also introduced to the participants by an alliance manager and a team lead from both alliances before the research starts. This reduced the chance of no response or declining participation (Hsu & Sandford, 2007a). Another applied method from Hsu & Sandford (2007a) to diminish attrition was the use of closed questions within the questionnaire, which is easier and less time-consuming to answer for the participants, which increases non-response. As a last method to improve response rates, the participants were given one week to fill in the questionnaire, which is appropriate following Hsu & Sandford (2007a), and received a reminder one day before the deadline. If required, another reminder was sent at the time of the deadline, asking the non-respondents for their cooperation one last time, by extending the deadline by one more day.

To illustrate the effects of attrition, an example is given for the aimed amount of participants of 20. It is mentioned that a minimum of ten experts still results in reliable research results, so this means that to end the last questionnaire with ten experts, not more than 29% of attrition per round may occur. Almost one third of the participants may drop out in order to still reproduce reliable results per project alliance. Table 5 shows the effects of different situations of attrition. It must be noted that this rule of attrition only holds for the whole sample. If the sample becomes as small as ten, the separate expert groups within the sample become unreliably small in order to generate generalizable results.

Table 5 Effects of attrition on the Delphi sample

Respondents at start	20	20	20	20
Attrition per round	10%	15%	20%	29%
Respondents after round 1	18	17	16	14
Respondents after 2 rounds	16	14	13	10

Table 6 Risks, disadvantages and proposed mitigation measures for the Delphi study

Disadvantage	Explanation	Mitigation
Potential of moulding opinions (Hsu & Sandford, 2007b)	The author might influence the answers of the experts by providing them with false feedback, moulding their answers to what the researcher wants to hear.	Clearly describe every step in the process and also document answers and drawn conclusions therefrom.
Identifying general statements instead of specific information related to topic of interest (Hsu & Sandford, 2007b)	This can happen in the case that the participants are not equivalent in knowledge and experience. When participants do not have enough knowledge on the topic, they cannot answer the questions with the same depth as others, leading to general statements.	<ol style="list-style-type: none"> 1) Define and implement strict expert panel selection criteria to guarantee knowledge and experience. 2) Start with a high number of experts, to diminish effect of some less experienced experts.
The Delphi study is highly sensitive to design characteristics by the researcher (Donohoe & Needham, 2009)	The Delphi study is adjustable to the goal of the research, however this also implicates high sensitivity to the researcher's decisions on for example the expert composition, expertise, question clarity etc. These decisions form the basis of the research.	<ol style="list-style-type: none"> 1) Clear description of the CDDs to ensure reproducibility. 2) Use of a scoping round as first round to specify definitions. 3) Pay extra attention to the expert panel selection criteria since these are stated to be extremely important within a Delphi study.
Delphi assumes that an expert rethinks his or her own judgement by the opinion of others (Donohoe & Needham, 2009)	The goal of the Delphi study is to reach consensus between all experts, even though they might start with different opinions. By interspersing the questionnaires with feedback from the previous rounds, which is provided by all experts together, the expert is challenged to rethink his or her own opinion and able to change this. However, some might not be open for this.	The experts are given the freedom to express themselves and defend their own judgement, without forcing them to change their statement to reach consensus.
Delphi is vulnerable to high attrition rates (Donohoe & Needham, 2009)	Attrition entails the rate to which participants stop responding per round. This is a threat because of the time between the rounds provides the experts with time to lose interest in the meantime. Besides, a Delphi study requires a long temporal commitment. High attrition rates are also a risk due to the current Coronavirus as discussed earlier.	<ol style="list-style-type: none"> 1) Select participants with high interest. 2) Panel management; keep them updated. 3) Work through contact person high in hierarchy within the alliance to gain interest for the research and distribute questionnaires. 4) Invest in personally involving participants/contact person.
Chance of 'specious consensus' (Donohoe & Needham, 2009)	When participants are not engaged in the research, do not poses the expected knowledge or are constrained by time, they might conform to the median judgement to overcome these problems.	<ol style="list-style-type: none"> 1) Define and implement strict expert panel selection criteria to guarantee knowledge and experience. 2) Clear communication with the experts on the required time for the questionnaires. 3) Panel management, keep them updated.
Hard to determine what constitutes sufficient consensus or when iterations stop (Donohoe & Needham, 2009)	Since the Delphi study evolves around reaching consensus, it is important that a strict level for consensus is determined.	Level of consensus is predetermined by examining literature on commonly used measures. Decision can be found in section 2.2.4. Besides, a lack of consensus is also being considered in the case there is no change between rounds, a minority of opinion persists or if outliers are present.

2.3 Participating project alliances

The two participating project alliances for this research were the Alliantie Markermeerdijken (MMKD) and the Graaf Reinald Alliantie (GRalliantie), which are two ongoing dike reinforcement projects with a similar projected end date. These two alliances were chosen because they are similar in terms of infrastructural sector and because of the approachability of these projects. Section 2.3.1 will elaborate on the type of project, involved parties, organisational model and alliance principles of the Alliantie Markermeerdijken, after which Section 2.3.2 elaborates on the GRalliantie.

2.3.1 Alliantie Markermeerdijken

MMKD is a project alliance between the Hoogheemraadschap Hollands Noorderkwartier (HHNK) as the client and Boskalis and VolkerWessels as the contractors. The project entails a 33 kilometre long dike reinforcement between Hoorn and Amsterdam (see Figure 5). The goal is to execute the project fast and smoothly and by choosing the project alliance as a project delivery method, the idea is that unforeseen changes can be managed without major delays or cost overruns (Hoogheemraadschap Hollands Noorderkwartier, 2014). The main reason for choosing the project alliance as project delivery method lies into two technical challenges, which they want to conquer by combining experience and knowledge of all parties (Hoogheemraadschap Hollands Noorderkwartier, 2014).

At the moment of this research, the project is in the implementation phase, where some of the designs are still being finalised (Expert C, 2020 (Appendix A.3)).

A basic representation of the organisational model for MMKD can be found in Figure 6, the complete organisational chart can be seen in Appendix A.4. Divided over these alliance roles are 230 employees, with an addition of 150 construction employees from the Unie van Marken, which are not mentioned within the figure (Expert C, 2020 (Appendix A.3)).

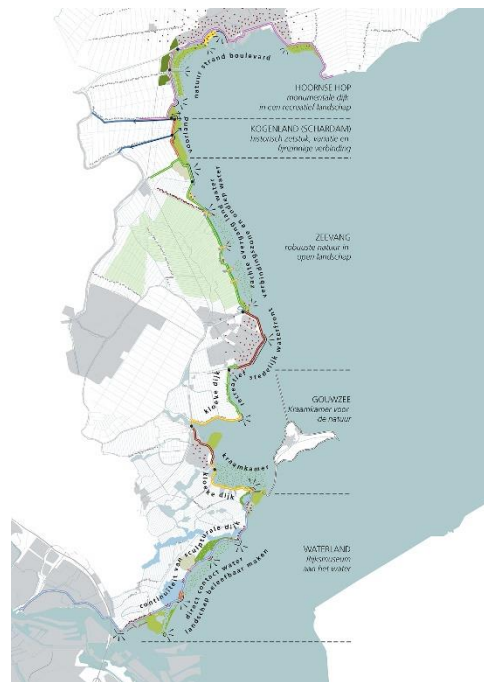


Figure 5 Overview of the project area of Alliantie Markermeerdijken

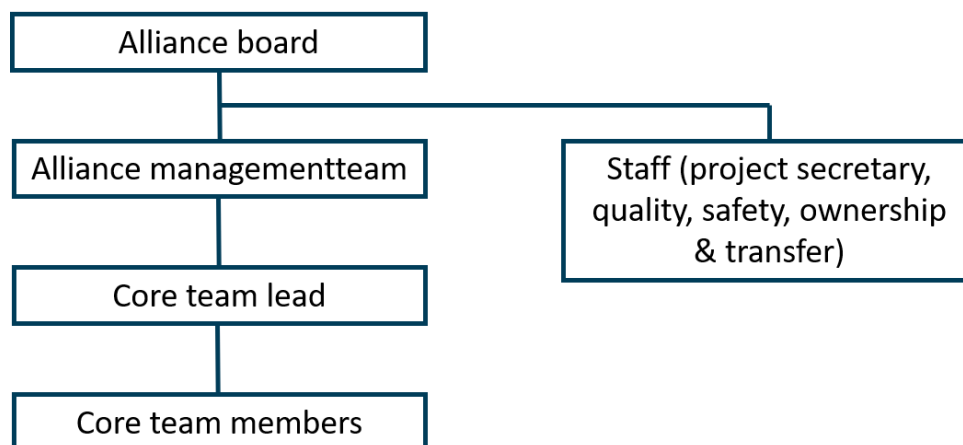


Figure 6 Organisational model Alliantie Markermeerdijken

MMKD works following these alliance principles (Expert C, 2020, Appendix A.3):

- Best-for-project
- Transparency and open book
- Consensus and unanimity
- Profit for one and loss for the other: unacceptable
- No blame, no claim
- Stay positive, have fun

More information in Dutch regarding MMKD can be found in Appendix A.3.

2.3.2 Graaf Reinald Alliantie

The GRalliantie is a project alliance between Waterschap Rivierenland as the client and the contractors Combinatie Waalensemble, consisting of Heijmans Infra B.V., GMB Civiel B.V. and de Vries & Van de Wiel B.V. with Royal Haskoning DHV as a consulting party. The project is part of the Hoogwaterbeschermingsprogramma (high water protection program) and entails a 23 kilometre long dike reinforcement between Gorinchem and Waardenburg, stretching along three municipalities and two provinces (see Figure 7). Parts of the dike area have failed safety tests based on combinations of failure mechanisms such as macro stability, height and piping. The aim is to find creative solutions to integrally solve the safety issues, to guarantee a safe dike area for 50 years, with the mission: together we create more (Graaf Reinald Alliantie, 2019).



Figure 7 Overview of the project area of the GRalliantie

The project is executed as a project alliance for the whole duration, from the exploration phase until handover.

The organisational model for the GRalliantie can be seen in Figure 8. The alliance team reports to the alliance management, the management reports to the alliance board. The client and contractor both supervise the compliance of the agreement from a distance.

The GRalliantie works following the exact same alliance principles as MMKD, with the addition of the principle that the stake of the stakeholders comes first (Graaf Reinald Alliantie, 2019).

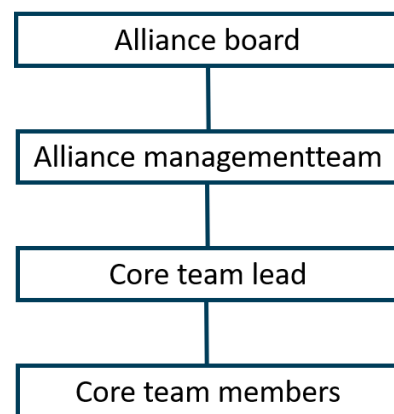


Figure 8 Organisational model GRalliantie

2.4 Selection of the expert panel

The Delphi method does not attempt to represent any population with a statistical sample but solely relies on the opinion of the experts. This makes the selection of experts one of the most critical aspects

in the Delphi design (Donohoe & Needham, 2009; Hsu & Sandford, 2007b; Okoli & Pawlowski, 2004; Skulmoski et al., 2007) and it is advised to thoroughly explain the used criteria (Thangaratinam & Redman, 2005). Therefore, it is widely suggested that qualifications of the experts, a balance between their expertise and the size of the panel is thoroughly assessed (Donohoe & Needham, 2009; Powell, 2003). This section elaborates on the criteria for the expert panel that are decided upon for this research.

2.4.1 Expert selection criteria

The selection criteria define what is accepted to be an expert for this research. Simply said, an expert is “any individual with relevant knowledge and experience of a particular topic” (Thangaratinam & Redman, 2005, p. 120). However a little more detail is required within the definition of an expert for the Delphi study.

Needham & Loë (1990) state that an expert can be defined in terms of their closeness to the subject of interest (see Figure 9). Objective closeness refers to those who investigate the subject without any bias, such as alliance researchers. Mandated closeness refers to those that have either professional or legal responsibility on the matter, such as alliance managers, consultants or policy makers. And finally subjective closeness refers to those who have great experiential knowledge or experience on the subject of interest, such as alliance core team members. By including people from all of these categories along the continuum, a wide range of knowledge, experience and perspectives is taken into account within the research (Donohoe & Needham, 2009; Powell, 2003). When multiple experts with different levels of expertise and knowledge are included within the Delphi study, the results improve by the idea that the whole is more than the sum of its parts (Donohoe & Needham, 2009). Powell (2003) agrees on this statement by elaborating that panels with a wide variety in perspectives and backgrounds produce solutions of high quality.

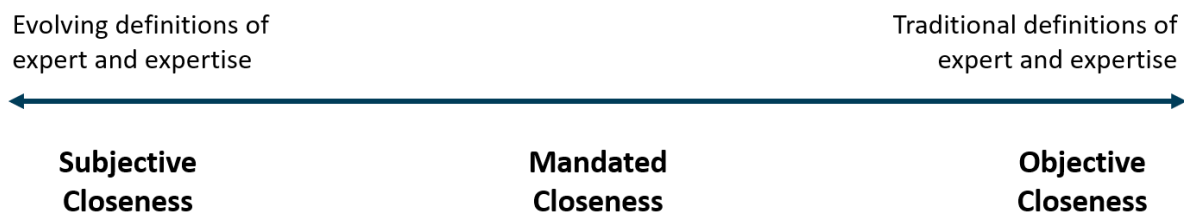


Figure 9 Definitions of expert and expertise

By following this definition of varying experts, the panel was divided into multiple expert groups that all represent possible different perspectives on the subject. This might also provide the research with valuable information because it offers the possibility of comparison (Okoli & Pawlowski, 2004). Besides representing different perspectives in terms of functions within the project alliance, the diversity is also increased by questioning experts from two different ongoing project alliances within the Netherlands. These are the MMKD and the GRalliantie, which are two dike-reinforcement projects. They can both be used due to their similar nature of works. Using more than one project case also increases the generalizability of the results.

Following Skulmoski et al. (2007) there are four requirements for expertise within a Delphi study: i) knowledge and experience with the topic; ii) possibility and willingness to participate (Powell, 2003); iii) sufficient time available; iv) communication skills. Another important aspect is reachability of the experts, due to the position of the author and the time-scope of this research.

Based on the aforementioned expert definitions and requirements, the following selection criteria were employed for the experts from the two project alliances. The experts:

- Were required to have experience with the subject, by working within one or more project alliances in the Netherlands.
- Were working within the Alliantie Markermeerdijken or the GRalliantie.
- Needed to have varying roles within the alliance organisation. This means included experts were divided into the following expert groups:
 - Alliance board;
 - Alliance management;
 - Alliance team lead;
 - Alliance team-members;
 - Alliance staff;
 - Researchers within the field: only indirectly included through implemented literature within the Delphi study due to the time-scope of this research.
- Needed to be available to participate in the research.
- Needed to be willing to participate in the research (by filling in two questionnaires).
- Needed to have sufficient communication skills to be able to clearly fill out the questionnaires (which was assumed to be the case for all project alliance participants).
- Needed to be able to be reached by the researcher.

2.4.2 Expert panel composition

As discussed, the expert panel for the scoping rounds does not have to be similar to the expert panel for the Delphi study because it helps to gain insight in the topic that cannot be found within literature. The two different panels are discussed below.

Interviews scoping round

The experts for the scoping round did not have to be as critically assessed as the experts chosen for the questionnaires, because the results did not directly depend on the interviews of the scoping round. The experts for the scoping round were not assessed on their experience of working within a project alliance, but on their research experience related to the subject of collaboration in general. Both experts had different backgrounds, related to the subjects of collaboration, project performance or partnerships. This adds another level of diversity to the information used for Delphi study, which is stated to be important to generate reliable results. It also ensures a broad vision as a starting point for the research. These experts could provide new insight upon the information that was found within literature. Another last important criterium was the time scope of this research and the reachability of the experts, which lead to the choice of including only experts that are currently working in the Netherlands.

The experts participating in the interviews of the scoping round were anonymised, but a short description of each expert is given:

- Expert A: professor at the Delft University of Technology, who has performed research to topics as project success and project performance and emphasizes the need to focus on people within the management of projects.
- Expert B: associate professor at the University of Twente, who has performed research to public-private partnerships, partnerships within infrastructure contracts and relational governance.

Questionnaires Delphi rounds

The experts participating in the questionnaires were defined by the expert panel criteria. The panel was a combination of two different project alliances and the aim was to create a balance within the number of participants per expert group, see Table 7. Following Hsu & Sandford (2007a), the list of

participants is more credible and respected if identified with the help of an expert from the field. Therefore, the expert panel criteria were discussed and then identified in cooperation with an alliance manager and an alliance team lead from MMKD and the GRalliantie respectively.

Table 7 Number of participants per expert group

Expert group	Number of participants MMKD	Number of participants GRalliantie
Alliance board	3	3
Alliance management	4	4
Alliance team lead	6	6
Alliance team members	7	7
Alliance staff	2	0
Total number of participants	22	20

2.5Part three: Propose a plan of action for building and improving collaborative identity.

The final part of the research treats the final sub-question:

SQ5 In what way can this be interpreted and implemented by an alliance organisation that aims to form collaborative identity?

This question forms the final part and conclusion of the research. The results from the other parts, such as the most important working practices and collaborative values, were combined to propose a plan for both participating project alliances as to which working practices and collaborative values should be their point of attention in order to improve collaborative identity. These project alliances were already ongoing and therefore a plan for the formation of collaborative identity was not useful, but based on the results a proposal was made in order to improve collaborative identity. A proposal was also made for new project alliances that desire to form collaborative identity.

3 THE PROJECT ALLIANCE

The existing literature is examined to create a thorough understanding of project alliancing. First, to place project alliances into context, public organisations and outsourcing is introduced in Section 3.1, after which Project Delivery Methods (PDMs) are elaborated on in Section 3.2. Section 3.3 defines the concept of a project alliance.

3.1 Public organisations and outsourcing

All public organisations, which are bodies governed by public law, are called contracting authorities and they are the only ones required to follow strict tendering procedures when purchasing goods or services (Chao-Duivis et al., 2013). The Dutch public organisations, also called public clients, that have to purchase through tendering are (Rijksoverheid, n.d.):

- The national government (Rijksoverheid);
- Municipalities, provinces and water boards;
- Organisations under public law (such as universities and schools);
- Specific sector companies such as drink water companies, energy suppliers and transport services such as Schiphol, Nederlandse Spoorwegen (NS) or ProRail (railway infrastructure).

When a public organisation plans a construction activity, outsourcing is required (Hermans et al., 2019). Private parties are free to enter into a contract in what way and with whom they wish, but public organisations are not. They have to follow the principles of procurement law, in order to offer an equal chance for all market parties to enter into an agreement (Chao-Duivis et al., 2013). The Dutch Public Procurement Act 2012 obliges public clients to offer everyone a fair chance, treat everyone the same, be transparent about the tender and form requirements that are in relation to the size of the order (Rijksoverheid, n.d.).

Outsourcing of the works, which means that the execution is transferred to another party, happens by means of a contract with one or multiple private parties and is also called a Project Delivery Method (PDM). The public organisation is able to choose between several types of PDM's, that outline the responsibilities of each party involved in the PDM. This will be elaborated in the next sections.

3.2 Project delivery methods

The development of a project within the construction industry by a public organisation can be done by the means of various types of contracting strategies. The contracting strategy determines the roles and division of tasks of the client and the contractors during the project (PIANOo, n.d.). There are multiple types of contracts, called Project Delivery Methods (PDMs), available to match the chosen contracting strategy. A PDM is "a system for organizing and financing design, construction, operations and maintenance activities that facilitates the delivery of a good or service" (Miller et al., 2000, p.59). The amount of influence of the contractor and the liability are the main differences between these methods (Chao-Duivis et al., 2013).

Which PDM is most suitable depends on the type of project, the available market parties and the type of client (Twynstra Gudde, n.d.). The PDMs can be divided into three categories which are different by the division of responsibility amongst client and contractor: traditional, integrated and life cycle contracts. Figure 10 shows an overview of the different PDMs related to the type of contract.

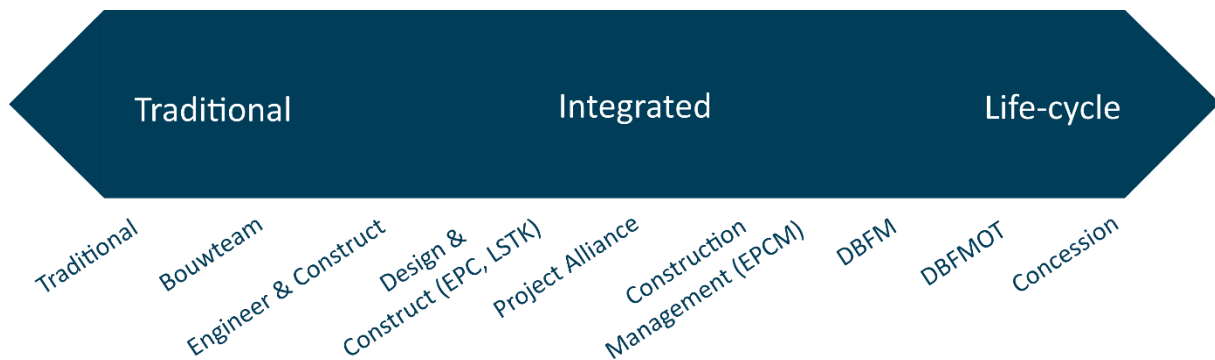


Figure 10 Different types of PDMs arranged by responsibility (Twynstra Gudde, n.d.)

The traditional methods are characterised by the classic triangle (Chao-Duivis et al., 2013), formed by the client, the architect and the contractor. The project phases are separated from each other. The client initiates the project and commissions a design, which is then executed by the contractor. The contractor is responsible for executing the design, but the responsibility for the design itself lies with the client (Chao-Duivis et al., 2013). Following Walker & Lloyd-Walker (2015), the combination of the lowest bid and/or the shortest time resulting from the contestability of the market is an advantage of this method.

The integrated contracts refer to contracts where the design and execution of the project are transferred to one other party (Walker & Lloyd-Walker, 2015), such as the contractor or the designer and are sometimes also referred as Design & Construct, Design & Build or Turnkey contracts (Chao-Duivis et al., 2013). In the case of the integrated contract, the client plays a smaller role and attracts less liability compared to the contractor. Integration is mostly achieved through planning and control systems, while people management and collaboration is also assumed to be important (Walker & Lloyd-Walker, 2015).

The life-cycle contracts are characterised by early involvement and increased responsibility of the contractor. The life-cycle also involves the exploitation of the project for several years (Boot et al., 2012). These methods can include the financing aspect, the maintenance phase as well as the operational phase after execution of the project.

3.3 What is a project alliance?

As discussed before, the project alliance came to life as a response to the negative project performance in the construction industry. This section will elaborate on what a project alliance is and how it entered the (Dutch) construction market.

3.3.1 Use of the project alliance in the Netherlands

Before entering the construction industry, the project alliance was already used in other industries. The first successful endeavour stems from the early 1990s, when the offshore industry demanded more effective co-operation in order to survive (Scheublin, 2001). During that time the construction industry was already suffering from problems such as cost overruns, delays and failure to meet the owner's performance expectations, due to the use of traditional PDMs. Resulting from this and the pressure to develop the construction industry, the urge to search for new PDMs to procure and deliver projects, increased rapidly (Hietajärvi, 2017).

Because of its success in the offshore industry, several companies tried to use the project alliance as contractual arrangement onshore as well, resulting in timely delivered projects of high standard. This trend also happened in the Netherlands, where the first known alliances were the re-commissioning of the CDU4 distillation plant, the construction of a hydrofiner and the extension of a polypropylene

factory for DSM (Scheublin, 2001). The first project alliance used in the construction industry was the Waardse Alliantie, which promised a bright future for the use of project alliances: with an amount of 25 million euros under budget and a timely delivery it was marked as a successful project, and the advice was to apply the PDM to more large infrastructural projects (CoBouw, 2005).

However, the project alliance never made the progress it deserved. Since the Waardse Alliantie, only six other project alliances were applied in the Netherlands, as can be seen in Table 8. Three out of the seven applications of project alliances in the Netherlands have not been finished yet. Therefore conclusions about these projects cannot be made yet. From the projects that are completed, only one did not end with a positive budget outcome, namely the N201. This was, following Provincie Noord-Holland (2016), due to an amendment of the law on tunnel safety, a change in central tunnel management and a scope change on the Zijdelweg. These changes resulted in delays and additional costs on extra research and the use of personnel, which was a logical consequence.

In other countries, the project alliance seems to generate mostly positive outcomes on the project performance as well, scoring positive on both schedule performance and budget performance in most cases (Gransberg et al., 2016). Besides, it is known to stimulate innovation, create a positive work environment and enhance work-life balance (Hietajärvi, 2017).

3.3.2 The definition of a project alliance

The project alliance can be seen as a procurement method or as a cooperative agreement between two or more parties, which legally binds them to co-operate towards a common goal (Hietajärvi, 2017). A client forms an alliance with one or more service providers, also called contractors, such as a designer, constructor or supplier to deliver noteworthy result on a specific project (Ross, 2003). It is marked as an appropriate delivery method for projects that are highly complex, highly uncertain, know tight timeframes, exhibit complex stakeholder issues and complex external threats (Chen et al., 2012). It can be seen as both an incentivization and a behavioural contract, which requires motivation of all partners by financial rewards and penalties on the one hand, but also requires good faith and collaboration on the other hand (Hietajärvi & Aaltonen, 2018).

In Australia, where project alliances are widely used, the commonly used definition is “a method for procuring, where all parties are required to work together in good faith, acting with integrity and making best-for-project decisions” (Commonwealth of Australia, 2015). Hietajärvi (2017) performed a broad research on the definition of a project alliance by different authors and concluded with the following statement:

“A project alliance can be understood as a multiparty contracting arrangement between two or more entities who undertake the work cooperatively on a shared risk and reward basis for the purpose of achieving agreed outcomes based on principles of good faith and trust” (Hietajärvi, 2017, p. 29)

The participants of the project alliance, from both the client and the contractors, cooperate as an integrated team in good faith (Chao-Duivis, 2018), focusing on those aspects that are best for the project (Ross, 2003). The managing of risks, both negative and positive, happens jointly and its outcomes are also commonly shared amongst all parties (Lahdenperä, 2012; Lloyd-walker et al., 2014; Ross, 2003). Task distribution and accompanying responsibilities are still divided amongst the parties, however the positive or negatives outcomes are shared.

Table 8 An overview of project alliances in the Netherlands (as far as known by author)

Alliance	Year	Project goal	Client	Contractors	Outcome	Source	Scientific research
A2 Hooggelegen	2007 - 2011	Widening of the junction Hooggelegen	Rijkswaterstaat	Trajectum Novum, consisting of Van Hattum en Blankevoort, Mourik Groot Ammers, KWS Infra, Boskalis and Vialis	Within budget, within time	Vialis, 2003 TrajectumNovum & Rijkswaterstaat, n.d.	(Elemans, 2016; Eversdijk & Korsten, 2018; D. D. Gransberg et al., 2015; Vrieling et al., n.d.)
Alliantie Markermeerdijken	2015 – ongoing (planned delivery 2021)	Strengthening the Markermeerdijken between Hoorn and Amsterdam	Hoogheemraadschap Hollands Noorderkwartier (HHNK)	Boskalis and VolkerWessels	x	Alliantie Markermeerdijken, n.d.	(Elemans, 2016)
Bataafse Alliantie	2007 - 2010	Realisation of the substructure for the doubling of the railway tracks, upgrading and developing of civil structures and the realisation of two new stations	ProRail	Combinatie Houten-4, consisting of Mobilis, CFE and KWS	€2,5 mil. under budget, within time, good quality	CoBouw, 2010	
Graaf Reinald Alliantie	2017 – ongoing (planned delivery 2021)	Improving the dike area Gorinchem - Waardenburg	Waterschap Rivierenland	Combinatie Waalensemble, consisting of Heijmans, GMB and de Vries & van de Wiel with Royal Haskoning DHV as consulting party	x	Gralliantie, n.d.	
Lingense Alliantie	2018 – ongoing (planned delivery 2021)	SpoorOmgeving Geldermalsen (SOG), adjusting existing train tracks and realizing new train tracks around Geldermalsen	ProRail	Dura Vermeer and Mobilis	x	De Lingense Alliantie, n.d.	
N201	2006 - 2013	Diversion of the road N201 between the A4, A9 and A2	Provincie Noord-Holland	Combinatie Grond- en Wegen N201 consisting of Boskalis B.V. and Heijmans	No positive outcome of budget, delayed	Boskalis, 2015 Provincie Noord-Holland, 2016	(Elemans, 2016; Vrieling et al., n.d.)
OV SAAL	2011 - 2016	Adjusting the railway tracks of the trajectory Schiphol – Amsterdam – Almere – Lelystad	ProRail	Alliantie Amstelspoor: BAM Combinatie consisting of BA Alliantie WALTZ: Combinatie Nieuwe Meer Sporen consisting of Volker Rail and van Hattum en Blankevoort	Unknown	Movares, n.d. ProRail, n.d.-b	
Waardse Alliantie	1999 – 2003	Realization of a freight train track between Sliedrecht en Gorinchem		HBSC, consisting of Heijmans, Boskalis B.V., Strukton Groep NV and CFE Aannemingsmaatschappij	€25 mil. under budget, within time	Infrasite, 2018	(Koolwijk, 2006; Vrieling et al., n.d.)

Chen et al. (2012) performed a research on the principles and features of project alliances based on existing literature, resulting in six principles that a project alliance is based on. These principles are Team Selection, Project Proposal Development, Risk And Reward Allocation, Governance And Management, Principles of Conduct and Dispute Resolution. The features belonging to these principles, can be seen in Table 9. Other authors that have stated the same features have been added to the table.

3.3.3 Life-cycle of the project alliance

The project life-cycle of an alliance will go through the following phases (see Figure 11): strategic planning, procurement, development, implementation and warranty (Hietajärvi, 2017). If during the strategic planning phase the decision is made by the client to procure the project through a project alliance, the contractor(s) are then chosen during the procurement phase, where the candidates will be evaluated based on qualitative criteria. As seen by the alliance A2 Hooggelegen, the ability to collaborate with the client can be used as one of the criteria during this phase (CoBouw, 2007). When all parties are chosen, the alliance team is formed during the development phase, after which they develop a plan for the project as an integrated team. The following phase is the implementation phase of the project, where the project is executed following the plans and principles that have been defined (Hietajärvi, 2017). The final phase is then the warranty phase, which is the time during which the project alliance is jointly responsible for maintenance. Expert C emphasized during an interview (see Appendix A.3) that a project alliance differs from ‘regular’ project delivery methods because in those cases the procurement happens only after the development phase. She states that this is one of the advantages of a project alliance, because the knowledge of the contractors can be involved early in the design process of the project and it creates the possibility for innovation.



Figure 11 Life-cycle of the project alliance

Table 9 Project alliance principles and features (Chen et al., 2012)

Principles	Features	Other sources
Team selection	<ul style="list-style-type: none"> * Focus on partner's competence, reputation and attitude * Select personnel on a 'best-for-project' basis 	(Ross, 2003)
Project proposal development	<ul style="list-style-type: none"> * Develop the project proposal by alliance partners with the owner's cooperation and involvement * Determine the performance targets and commercial arrangements on a negotiation basis or on a competition basis, as the case may be 	
Risk and reward allocation	<ul style="list-style-type: none"> * Share risks and rewards collectively * Create win-win or lose-lose situation through a risk/reward regime * Align the owner's project objectives with partner's commercial objectives 	<p>(CoBouw, 2005; Commonwealth of Australia, 2015; Hietajärvi, 2017; Lahdenperä, 2012; Lloyd-walker et al., 2014; Ross, 2003; De Ridder, 2009)</p> <p>(Commonwealth of Australia, 2015; De Ridder, 2009; D. Gransberg et al., 2016; Hietajärvi, 2017; Pertti Lahdenperä, 2012; Lloyd-walker et al., 2014; Ross, 2003) (Expert C, 2020 (Appendix A.3))</p>
Governance and management	<ul style="list-style-type: none"> * Make project decisions collectively and unanimously * Deliver the projects by one integrated, no duplication of functions and roles team * Perform variations only under very limited circumstances * Establish a peer relationship where each partner has an equal say in decisions * Share information and knowledge * Commit to 'open book' in terms of cost data, documentation and reporting 	<p>(Commonwealth of Australia, 2015; De Ridder, 2009; P. Lahdenperä, 2009; Ross, 2003) (Expert C, 2020 (Appendix A.3))</p> <p>(Commonwealth of Australia, 2015; Hietajärvi, 2017; Pertti Lahdenperä, 2012; Ross, 2003)</p> <p>(Ross, 2003)</p> <p>(De Ridder, 2009; Ross, 2003; van den Berg & Goelema, 2015) (Expert C, 2020 (Appendix A.3))</p>
Principles of conduct	<ul style="list-style-type: none"> * Make decisions and act in a 'best-for-project' manner * Open, straight and honest communication among all partners * Commit to co-operation in achieving the objective * Act fairly and reasonably instead of reaping self-interests at the expense of other partners 	<p>(Commonwealth of Australia, 2015; D. Gransberg et al., 2016; Ross, 2003) (Expert C, 2020 (Appendix A.3))</p> <p>(van den Berg & Goelema, 2015)</p> <p>(Hietajärvi, 2017)</p>
Dispute resolution	<ul style="list-style-type: none"> * Commit to 'no fault-no blame' culture in relation to errors, mistakes or poor performance * Agree not to litigate or arbitrate 	<p>(Lloyd-walker et al., 2014; Ross, 2003) (Expert C, 2020 (Appendix A.3))</p> <p>(Ross, 2003)</p>

4 COLLABORATION IN A PROJECT ALLIANCE

This research deals with the concept of collaborative identity within a project alliance. The project alliance has been elaborated in the previous chapter, hence this chapter will dive into the concept of collaborative identity. This chapter starts with an explanation of the different types of working together, then diving into client-contractor collaboration within project alliances, and finally explaining the term collaborative identity.

4.1 Working together in a project alliance

In the construction industry, it is common that different parties work together, all with different but complementing roles, due to the fragmentation and specialization of this industry that is mostly project-based (Suprpto, 2016). This idea of working together is often referred to as collaboration, but should be distinguished as collaboration, co-operation, networking or coordinating (O'Flynn, 2009). Suijkerbuijk et al. (2019) also state that it is important to differentiate in ways of working together to fit the type of project. So what type of working together is present within project alliancing? Therefore it is required to dive into these four concepts.

Following O'Flynn (2009), the four terms can be distinguished by each parties' commitment to time, trust and turf (see Figure 12). Networking is the most informal way of working together and is mostly practiced when information is exchanged for mutual benefit. Coordinating is a little less informal, and requires more trust and time so all parties can achieve a common goal. Cooperation is more of a strategy to work together and again requires increased trust, time and turf. Collaboration is the most formal form of working together, where parties share risks, rewards, responsibilities to enhance each other's capacity for a common purpose. A high level of trust and time commitment is required and turf is shared.

When relating the distinctions of working together by O'Flynn (2009) to the previous chapter of project alliancing, the conclusion can be drawn that project alliancing fits the term collaboration most. Collaboration is described as working towards the same goal, requiring high levels of trust, time and commitment, and sharing risks, rewards and responsibilities. Following Greer (2017) it is a good option when projects are interdisciplinary, complex or not to be solved by one organisation because knowledge and experience of multiple people is required. As seen in the previous chapter, these are also important aspects of project alliancing.

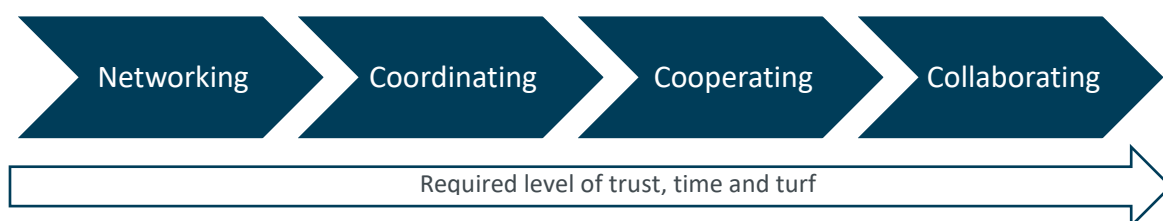


Figure 12 Differences between four ways of working together based on trust, time and turf

4.2 Client-contractor collaboration in a project alliance

Now it is clear that collaboration is the way of working together used for project alliancing, the collaboration between the client and the contractor (synonyms: client-contractor collaboration, owner-contractor collaboration, client-contractor relationship, owner-contractor relationship) is elaborated.

Collaboration is stated to be one of the best ways of working together (Suijkerbuijk et al., 2019). But what is collaboration exactly? Besides the description given in Section 4.1, O'Flynn (2009) states that collaboration is about building a durable relationship, by commonly creating new structures, working with a common mission by means of a shared planning and formal communication through all levels.

Literature seems to provide different explanations of the term collaboration within the construction industry. The focus though is that it is a way of working together towards a common goal, by sharing resources, risks, responsibilities and rewards, and enhancing each other's capacity for mutual benefit (O'Flynn, 2009; Suprpto, Bakker, Mooi, et al., 2015). For this research, the definition by Suprpto, Bakker, Mooi, et al. (2015) is adopted:

"... define owner–contractor collaborative relationship in a project as the behavioral interaction between owner and contractor working together for the purpose of achieving specific project and business objectives by effective utilization of each party's specific resources and capabilities based on shared values and norms." (Suprpto, Bakker, Mooi, et al., 2015, p. 665)

Furthermore, Suprpto, Bakker, Mooi, et al. (2015) explain general collaborative relationships by distinguishing six categories based on extensive literature research. These categories are used as a framework to build the concept of client-contractor collaboration within a project alliance, by adding information from literature on project alliancing and linking it to Chapter 3.

Team Working

The basic essence of team working is present when two or more people cooperatively share information and make decisions and work towards a common goal (Baiden & Price, 2011), which are also features of project alliances as mentioned in Section 3.3.2. Team working is essential within the construction industry, because of the complex nature and demand for a variety of complimentary knowledge and skills, which is usually present within a team (Baiden & Price, 2011). However, forms of collaboration within the construction industry are often formed based on competition rather than on compatibility (Baiden & Price, 2011), so different parties that have to team up might not match. This while effective team working seems to positively influence the success of construction projects (Baiden & Price, 2011; Suprpto, Bakker, & Mooi, 2015; Suprpto, Bakker, Mooi, et al., 2015) and therefore requires more attention. Besides, cooperative behaviour is stimulated by a positive teamwork spirit (Suprpto, Bakker, Mooi, et al., 2015), which is also important to achieve a successful project alliance. An exception to this is the tender phase of the A2 Hooggelegen alliance, where interested contractors had to prove their ability of collaboration with the client. It was the first time that collaboration ability was used as a criterium of selection (CoBouw, 2007).

Relational Attitude

Relational attitudes refer to the idea that each party possesses different attitudes and mindsets. When parties start collaborating, these will be brought into the new relationship (Suprpto, Bakker, Mooi, et al., 2015) even though they might be conflicting. To govern their relationship, new relational norms, factors and routines should be developed together (Suprpto, Bakker, Mooi, et al., 2015). Suprpto, Bakker, & Mooi (2015) state that mutual trust, commitment, openness and a no-blame culture are important items to be discussed. They also state that daily managerial attention to these subjects is required to experience the positive effects on project delivery.

Capability

Following (Suprpto, Bakker, Mooi, et al., 2015), the project capability refers to the capability of both the client and the contractor regarding project management. They can be seen as important assets to strategically ensure an organisation's ability to survive, adapt and compete with the environment by

focusing on achieving a certain end result through certain activities (Hietajärvi, 2017). It was widely accepted that the contractor's capabilities were the most important to guarantee successful project delivery (Suprpto, Bakker, Mooi, et al., 2015), however within a project alliance, the client's capabilities have become crucial too. Suprpto, Bakker, & Mooi (2015) found that joint capability of the client and the contractor does not directly influence the project performance, however it indirectly does. They concluded that joint capability positively influences teamworking quality, which significantly increases project performance.

When it comes to capabilities related to managing project alliances, Hietajärvi (2017) refers to alliance capabilities (Schreiner et al., 2009). Schreiner et al., (2009) emphasize that organisations with better organisational alliance capabilities are able to manage mutual dependence with each other through coordination, to exchange information and knowledge and to develop a social connection. Some important alliance capabilities are to be able to identify and select potential partners, to negotiate the collaborative agreement, implementation capabilities such as coordination and communication, and dynamic capabilities such as the ability to adapt to changing circumstances (Hietajärvi, 2017; Schreiner et al., 2009; Teece, 2014). Another important aspect of alliance capability is the ability to create routines to be invested in the working culture and to be transferred to other project alliances (Hietajärvi, 2017; Sluyts et al., 2011)

Team Integration

Following Hietajärvi (2017) team integration is one of the most important organisational requirements to deal with interdependency, uncertainty and change in complex projects. Bosch-Rekvelde et al. (2011) also conclude that establishing team integration is the most important aspect contributing to project success. Team integration concerns the encouragement of an environment through collaborative working practices, methods and behaviours in order to freely exchange information and knowledge among the different parties (Baiden & Price, 2011; Bosch-Rekvelde et al., 2011; Suprpto, Bakker, & Mooi, 2015; Suprpto, Bakker, Mooi, et al., 2015). Baiden et al. (2006, p. 3) also explain integration as "the merging of different disciplines or organisations with different goals, needs and cultures into a cohesive and mutually supporting unit." As discussed in section 3.3.2, this is also an important aspect of project alliancing, where different parties start a new relationship and thus have to align their organisational cultures in order to deliver the project and make decisions as one integrated project team.

Joint Working

Joint working is a collaborative practice (Suprpto, Bakker, & Mooi, 2015) and concerns the project participants working together towards a common goal by combining efforts. The elements of joint working mentioned by Suprpto, Bakker, Mooi, et al. (2015) are joint decision making, joint problem solving and dispute handling, joint risk management and joint effort for continuous improvement, which as discussed in section 3.3.2 are important features of project alliancing as well. Lloyd-walker et al. (2014) and Suprpto, Bakker & Mooi (2015) state that joint working is one of the most important indicators of a strong relationship. A set of working procedures guides the project participants to work jointly, such as happens within a project alliance, where two parties suddenly have to collaborate and achieve goals together.

Contract

Mutual commitment, trust and win-win attitudes are soft aspects that are often used to describe project-based relational contracting, besides the integration of the client and contractor into one team (Suprpto, Bakker, & Mooi, 2015). These aspects also hold for the project alliance, which is a collaborative project delivery method, legally binding two or more parties to work together towards the same goal (Hietajärvi, 2017). Following Baiden & Price (2011), the alignment of all attitudes that

conflict with the new project team and the common acceptance of the shared vision is one of the challenges that arise within a new project team and is often imposed by a contract. Even though partnering contracts, such as the project alliance, are seen as more collaborative than lump-sum based contracts, they do not always eliminate the underlying, opposing attitude of the client and the contractor (Suprpto, Bakker, Mooi, et al., 2015). However, Walker & Lloyd-Walker (2015) state that a contract is able to enhance a feeling of collegiality by means of the behavioural rules and incentivization mechanisms in place.

Following Suprpto, Bakker, Mooi, et al. (2015) the key aspects of a contract are remuneration scheme, incentives and risk sharing mechanisms. De Ridder (2009) states that besides a declaration of intention, a project alliance contract usually involves the management and coordination, the distribution of risks, the financial conditions, the incentives, modifications, certainties and the handling of disputes.

4.3 Collaborative identity

The previous section elaborated on what client-contractor collaboration entails within a project alliance and it might be clear that collaboration between the client and the contractor is an important aspect for the success of a project alliance. However so far attention to the underlying processes in order to actually benefit from this type of contracting in practice is lacking (Hietajärvi, 2017). Following Bresnen & Marshall (2002) and Chan et al. (2012) too much attention is paid to formal mechanisms such as contracts or tools, while forgetting about the social aspects and the relationships between people from different organisations working together (Suprpto, 2016). Chan et al. (2012) state that the focus lies on being partners, instead of becoming partners within the collaboration, which is an essential part being overlooked. Warsen et al. (2019) confirm that both contractual aspects as well as relational aspects require attention to result in successful performance, because they complement each other.

Suprpto et al. (2015) argue that more managerial attention is required to the fact that people are obliged to work together across the boundaries of their own organisations and that those underlying factors are highly underexposed. The idea of bringing people from different backgrounds together to share knowledge might seem promising, but will not automatically guarantee effective collaboration (Baiden et al., 2006). This is also due to the fact that a project alliance organisation consists of several people from different parent organisations, representing different agenda's and needs (Walker & Lloyd-Walker, 2015), while they are forced to collaborate on specific projects that may require another attitude. The parent organisations have their own identities, which is created by shared assumptions and core values that form the culture of that organisation (Walker & Lloyd-Walker, 2015) and which is a fundamental aspect of the success of an organisation (Hietajärvi & Aaltonen, 2018). Organisational identity refers to how members of that organisation collectively perceive and construct the organisation and discusses aspects such as who they are, what they stand for and how they might be similar or different than other organisations (Hietajärvi & Aaltonen, 2018).

When employees externally work in another project team, they still represent the organisational identity from their parent organisation (Suprpto, Bakker, & Mooi, 2015). Lee (2004) also refers to this as organisational identification, which concerns the degree to which an employee feels he or she belongs to that organisation, or the extent to which an employee defines her or himself in the same way as he or she defines the organisation. It basically describes the collective feeling of "who we are as an organisation" (Hietajärvi & Aaltonen, 2018; Puusa & Tolvanen, 2006). This can be seen in a consortium, where several contractors co-operate as a team for the duration of a project. They are similar to project alliances in the idea of bundling strengths and knowledge, working together towards

the same goal and sharing the risks together, however, they all still work by their mother organisation's identity (Bouwend Nederland, n.d.) because there is no need to form an integrated identity.

Chan et al. (2012) also found this identity problem to be the case during a case study where participants found it hard to make best-for-project decisions while still trying to protect their mother organisation's interests. This also relates to the so-called organisational paradox, occurring when the benefits of the relationship between two different organisations is hardly realized in practice because they carry contradictions in attitudes (Alderman & Ivory, 2007; Suprpto, 2016). Therefore, when entering into a collaborative form of contracting such as the project alliance, it is essential to break with these adversarial attitudes and focus on building and maintaining a solid relationship (Davis & Love, 2011).

Even though literature emphasizes the need for it, it is usually forgotten to focus on forming a uniform project identity within a project alliance in order to gain commitment of the participants (Walker & Lloyd-Walker, 2015) while it has become more important to orientate on the people aspect within the strategic team implementation (Hietajärvi, 2017). Indeed, Hietajärvi (2017) states that the commitment of parties, a joint governance structure and integration of people are amongst the success factors of a project alliance. When forming such an integrated project team from different organisations, the participants should attempt to work towards mutually beneficial outcomes while sharing achievements, failures and successes, thus forming a new team identity (Baiden & Price, 2011) or project identity (Hietajärvi & Aaltonen, 2018) together. Following Hietajärvi & Aaltonen (2018) this project identity is dynamic due to the different phases of the life-cycle that the project team goes through together and therefore the focus should not only be on forming such an identity, but also on monitoring it during the project life. A well-defined, widely accepted and positively construed organisational identity provides focus for individuals to identify themselves with the organisation (Puusa & Tolvanen, 2006).

As discussed does managing a project alliance require strong inter-organisational integration of the project team and a collaborative working environment (Hietajärvi, 2017). This sense of belonging and integration of different competences, knowledge and expertise of people that have never worked together before, is also called collaborative identity (Hietajärvi & Aaltonen, 2018). The definition proposed by Hietajärvi & Aaltonen (2018) is as follows:

"..., collaborative project identity refers to the collaborative values, working practices and co-operation that shape the project organisation's self-image and distinguish the project from other project organisations,..."
(Hietajärvi & Aaltonen, 2018, p. 3)

Collaborative values can guide behaviour, reduce uncertainty and determine which types of behaviour or situations are desirable or not (Puusa & Tolvanen, 2006). Working practices refer to the way work is usually done within an organisation (Macmillan Dictionary, n.d.) and are actions to be executed.

Greer (2017) refers to a similar concept by the name of collective identity, which she states to be required to prevent unsuccessful collaboration from being the result. Collective identity is required to be formed in order for members to commit to both the project and to other project members. Feast (2012) states that the members are so to say on the same wavelength when collective identity is present and Greer (2017) adds that they are more willing to overcome their different perspectives, values or biases.

This concept also links to the social identity theory, which explains that each individual has a personal identity and a social identity (Lee, 2004) which are closely interrelated (Puusa & Tolvanen, 2006). He states that social identity refers to the way people classify themselves within various social groups, of which organisational identity is a specific form. It refers to the unification of the self and the

organisation. This means that when people from different home organisations have to form one team together, a new organisational project identity had to be formed with a focus on collaborating together, and each individual has to adjust her or himself to this. The individual transitions from one social identity to another (Walker & Lloyd-Walker, 2015). Due to the fact that these people are used to varying roles and levels of commitment, this might result in tension between the individuals when forming collaborative identity (Hietajärvi & Aaltonen, 2018) if no fair balance can be found (van den Berg & Goelma, 2015). Though Hietajärvi & Aaltonen (2018) state it is important that decoupling of the old organisational identity takes place, because it reduces role conflicts and barriers to change.

However this transformation is important due to the fact that when the individuals identify with the new organisational identity, they prefer to execute activities that fit the new identity and the values of that organisation (Lee, 2004). However, within a project alliance, a new temporary organisation is built, meaning the suitable working practices and values that fit the new organisation are not known yet.

As discussed before, there is a lack of attention to these aspects when forming a new integrated team while this has such an important influence on the project performance (Hietajärvi, 2017; Walker & Lloyd-Walker, 2015). Therefore, it is important that a new project alliance team focuses on becoming one integrated team by forming collaborative identity as soon as the development phase of the project starts.

Besides the lack of attention to the subject of forming collaborative identity within project alliances, there is also a lack of knowledge on how to do this. As discussed above, the term collaborative identity can be divided into collaborative values and collaborative working practices² (see Figure 13). To fill the knowledge gap on how to form collaborative identity, this research focuses on finding which working practices and collaborative values are necessary in order to form collaborative identity within project alliances.

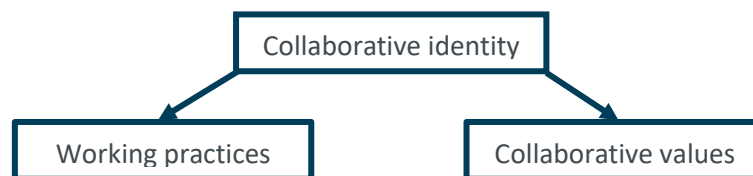


Figure 13 Collaborative identity structure

4.4 Collaborative values and working practices

Now that is clear what collaborative identity entails, the research continues by searching for the working practices and collaborative values that are required to form collaborative identity. There is a lack of understanding on how collaborative identity within a project alliance can be formed and which collaborative values and working practices are required to do so. It is advised to start the Delphi study with information from literature as a starting point, however this information is lacking. Therefore the decision is made to choose a starting point containing more available information, closely related to collaborative identity, namely successful collaboration.

4.4.1 Collaborative values

A list of ten collaborative values is established from literature, based on values that are stated to be needed to successful collaboration and values that are important characteristics for project alliances. These are equality, tolerance, honesty, group solidarity, trust, the shared feeling of “us”, (shared) commitment, transparency/openness, consensus/unanimity and best-for-project. See Table 10 for an

² The term “co-operation”, which appeared in the definition of collaborative identity, is left out of this research to limit the scope.

overview of the collaborative values and the sources they are extracted from. An extended explanation of why each of these collaborative values can contribute to the formation of collaborative identity will be explained next.

Table 10 Overview of the collaborative values

Value	Important because	Source
Equality	Leads to a strong relationship and feeling of belonging	(Hietajärvi & Aaltonen, 2018)
Tolerance	Leads to a willingness to cooperate	(Rahman et al., 2014)
Honesty	Helps to build a close relationship	(Rahman et al., 2014)
Group solidarity	Associated with trust, needed to create motivation for forming collaborative identity	(Lee, 2004)
Shared feeling of “us”	Definition of a collaborative identity	(Hietajärvi & Aaltonen, 2018)
(Shared) commitment	Characteristic of collaborative identity	(Hietajärvi & Aaltonen, 2018)
	Describes the individual’s attachment to and involvement with the organisation and enhances identification with the organisation	(Puusa & Tolvanen, 2006)
	Only when commitment (and trust) are available, decision making is aligned with mutual goals	(Davis & Love, 2011)
Trust	Important aspect of project alliance	(Hietajärvi, 2017)
Openness / Transparency	Leads to a willingness to cooperate and an important aspect of project alliance	(Rahman et al., 2014) Expert C, 2020 (Appendix A.3)
Unanimity / consensus	Important aspect of project alliance	(Chen et al., 2012; Commonwealth of Australia, 2015; De Ridder, 2009; Ross, 2003) Expert C, 2020 (Appendix A.3)
Best-for-project	Important aspect of project alliance	(Chen et al., 2012; Commonwealth of Australia, 2015; Ross, 2003) Expert C, 2020 (appendix A.3)

Equality

A project alliance is based on the idea that all parties become equally responsible for the project goals, including the equal share of losses and gains (Lloyd-walker et al., 2014; Love et al., 2011). Lloyd-walker et al. (2014) state that it is this equal feeling of responsibility of the alliance partners that enforces the development of the new alliance culture, and links contractual incentives to integrative behaviour or, as Aaltonen & Turkulainen (2018) named it, organisational integration. Love et al. (2011) mention that the alliance principles of equal ownership and commitment is a main driver of collaborative relationships and stimulate dispute avoidance.

Tolerance

When it comes to teamwork, tolerance within a group leads to a willingness for collaboration (Rahman et al., 2014). Tolerance towards each other within a project alliance is relevant because of the diverse stakeholders that are included. When adversarial organisational boundaries decrease, tolerance of mistakes becomes higher as the collaborative identity develops (Davis & Love, 2011). Following Xyrichis & Ream (2008) teamwork improves tolerance towards team mates and helps to identify integrative views.

Tolerance not only refers to tolerance towards each other, but also towards the project. Following Greer (2017) a low tolerance for uncertainty of the project may obstruct the quality of ideas that are

explored, but also the identity formation. No tolerance towards the process may also lead to unsuccessful collaboration (Greer, 2017).

Honesty

Rahman et al. (2014) states that honesty amongst all parties is relevant for collaboration, as it reduces conflict and increases teamwork. Greer (2017, p.96) refers to the need for honest communication between the parties as “the glue that holds collaborations together”. She also states that honest communication, amongst other things, is crucial to collective identity formation. Honesty is also strongly related to respect and trust-building (Greer, 2017).

Group solidarity

Group solidarity deals with the feeling of solidarity amongst a group and is generated by working within a group (Greer, 2017). It deals with the way people feel within a group and is also associated with trust. Following Hietajärvi & Aaltonen (2018) a feeling of solidarity is essential for a project alliance, that naturally strongly relies on identity formation. Solidarity within a group helps to generate the motivation to form a collaborative identity.

Trust

Trust is an abstract value and can be explained on an organisational or individual level. On an organisational level, which is what is looked at within this research, trust refers to achieving common goals by means of a mutual commitment and cooperation (Puusa & Tolvanen, 2006). Managers play an important role in the determination and contribution to the level of trust within an organisation.

Hierarchically evaluated, there are three levels of trust, namely calculus-based trust, knowledge-based trust and identification-based trust (Puusa & Tolvanen, 2006). The first one is rather superficial, and is based on the risk of losing something, such as reputation, if not complied to. Knowledge-based trust concerns the amount of information that is known from the other party and contributes to the ability to predict the behaviour of the other party. When this level of trust is there, the basis for mutual plans and decision making is there. Another level higher of trust is identity-based trust.

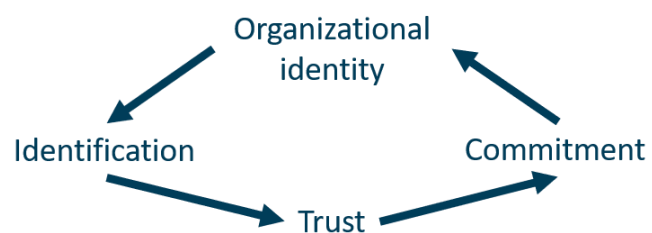


Figure 14 The link between organisational identity and trust (based on Puusa & Tolvanen, 2006)

This is ideally the level of trust required to reach collaborative identity, because when this level of trust is present, the parties identify themselves with the other and know their interests will be secured. Trust however does not directly create an organisational identity, but does contribute to greater commitment, which in the end can lead to a collaborative identity. This is also shown in Figure 14: a loop where identification leads to trust, after which trust leads to more commitment (Puusa & Tolvanen, 2006). A strong group commitment then leads to organisational identity, and so on. Trust however is not something that can be pushed, but has to develop over time. Following Puusa & Tolvanen (2006) trust depends on the interaction that the parties have or have had in the past.

The shared feeling of “us”

The shared feeling of “us” is a characteristic of collaborative identity, which can be reinforced by both formal and informal practices (Hietajärvi & Aaltonen, 2018). It refers to the shared feeling of who the alliance represents as a group and what makes them different or equal to other projects (Hietajärvi & Aaltonen, 2018). Creating a shared feeling of “us” within the alliance helps to unify the group and unchain their parent organisation identity temporarily.

(Shared) commitment

Commitment refers to the emotional strength of the devotion of an individual towards the organisation, or as level of individual identification with the organisation (Puusa & Tolvanen, 2006). Commitment to the organisation increases the feeling of an organisational identity, which is the foundation to build the collaborative relationship on (Puusa & Tolvanen, 2006). This is a relevant focus because of the temporal characteristic of project alliancing, comprising individuals from different organisations with different roles and commitment levels (Hietajärvi & Aaltonen, 2018).

Commitment is also a feature of project alliancing, referring to the behavioural commitment to act in good faith (Hietajärvi & Aaltonen, 2018), to act upon the ‘no blame, no claim’ culture and to not provoke disputes (Commonwealth of Australia, 2015). This behavioural commitment is one of the key features that contributes to an integrated collaborative project team (Commonwealth of Australia, 2015). Davis & Love (2011) state that only when commitment is there, decision making can be aligned with the mutual goals of the project.

Transparency/openness

This collaborative value is an alliance principle (Expert C, 2020, Appendix A.3) and refers to the sharing of resources within a project alliance. Multiple parties come together within one project alliance, all with different resources, information and expertise available. In order to successfully collaborate, every party should be open and share this information amongst the other parties. This also refers to being open about transactions and costs (Ross, 2003) and open book documentation and reporting (Commonwealth of Australia, 2015). Transparency and openness are seen as relevant features of project alliancing that stimulate the success factors of this alliance, of which one is becoming an integrated collaborative team (Commonwealth of Australia, 2015).

Consensus/unanimity

Collectively making unanimous decisions is a relevant feature of project alliancing (Chen et al., 2012; Commonwealth of Australia, 2015; Ross, 2003). Following the Commonwealth of Australia (2015) it reinforces the success factors of a project alliance, of which being an integrated collaborative team is one. The board, existing of individuals from all parties, and the management, should make these decisions by consensus (Ross, 2003). By creating a unified top management, the alliance takes shape, and all alliance participants are following the same direction. It is important to diminish fragmentation because it obstructs the formation of one collaborative identity.

Best-for-project

Best-for-project is a key feature of project alliances and refers to the expectation that everyone involved within the project alliance makes decisions in favour of the mutual vision and goal (Commonwealth of Australia, 2015). The alliance contract is based on a joint structure of mutual trust, where the idea of best-for-self does not exist. Pursuing the collaborative value best-for-project means that all parties are aligned towards the same objectives, of which one of the results is the enabling of honest and transparent cooperation. This refers to supplying the right physical resources as well as choosing the right people for the roles; it should all be towards the best interest of the project. By making these decisions together, an integrated and committed team develops itself. Focusing on the best-for-project value is required for the formation of collaborative identity in order to break with the organisational paradox, which results from contradictions in attitudes that relate to the mother organisations (Chan et al., 2012; Suprpto, 2016).

4.4.2 Working practices

Working practices are extracted from literature, based on the statement that they contribute to successful collaboration. These aspects are therefore known to contribute to collaboration, but not (yet) to collaborative identity. The working practices are categorized by the collaborative value that

they contribute to. By execution of the working practices, the corresponding collaborative value is pursued. The working practices were coupled to the collaborative values by the author, based on a combination of literary foundation and knowledge. If a working practice might contribute to more collaborative values, it is listed for each of the values.

A total of nine different sources have been used to create the list. These researchers have all contributed to the existing literature on successful (client-contractor) collaboration or organisational identity, collaborative identity or a similar concept, and are therefore seen as relevant for the creation of this list. An explanation of why particularly this literature is chosen, can be found in Appendix A.1. A note however has to be made that not all relevant literature might have been taken into account, due to the time scope of this research. This is accepted because it is no final list and it only provides a starting point for the practical research.

4.4.3 Conclusion

The listed working practices and corresponding collaborative values formed a starting point for the Delphi research, which is elaborated in the next part of the research. The conceptual list can be seen as a first version of working practices that might influence collaborative identity, which can be found in Appendix A.2. Part two of the research indicates which working practices and collaborative values are actually contributing to the collaborative identity formation within project alliances.



PART

2

COLLABORATIVE VALUES AND WORKING PRACTICES TO FORM COLLABORATIVE IDENTITY

This part will investigate which collaborative values and working practices are required to form collaborative identity. This will be done by means of a Delphi study with the information from two ongoing project alliances.

5 EMPIRICAL RESULTS DELPHI STUDY

The design of the Delphi study is discussed in Section 2.2. This chapter discusses the empirical results of the Delphi study. The results of the scoping round will firstly be discussed in Section 5.1, including the general conclusions and the final list of collaborative values and working practices. Section 5.2 presents the set-up of the questionnaire for round one.

Section 5.3 outlines the results of round one, after which Section 5.4 discusses the implications of round one for round two. Section 5.5 outlines on the set-up of round two, after which Section 5.6 elaborates on the results of round two.

5.1 Results of the scoping round

This section will elaborate on the findings from the interviews of the scoping round and will conclude with a final list of working practices to be used for the Delphi questionnaires, adjusted to the outcomes of the interviews.

5.1.1 General conclusion of interviews

One of the first things Expert A mentioned during the scoping round interview (see Appendix B.3), was that for a project the feeling of “us”, instead of “we” versus “they”, is an essential prerequisite of success. Even though he stated to find the term collaborative identity very harsh, he confirmed the importance of it for a project team. From his experience as a researcher and a project manager, he stated that investing effort and time into the soft side, the human side, is important in order to know what the preferred way of collaboration is and what drives the team members. He frequently emphasised the need to focus on the human side of collaboration and the fact that this takes and deserves time. Even though it is the job of the manager to facilitate this process, he mentioned that it is nonetheless important to do it together *with* the project team, and not try to do it *for* them. An important requirement is trust, but also a safe working environment in which people are able to share their dissatisfaction. That way people are motivated to work for and with their team.

When asking Expert A if the formation of a collaborative identity could be done the same for every project team, he mentioned that one size does not fit all. He stated that it is important to know what to do and to have procedures as a guideline, but that the execution of these procedures can differ depending on the circumstances. This might imply that what works for one project alliance, might not work for the other, and will be taken into account during the Delphi study.

During the interview with Expert B (see appendix B.4), it became clear that his view contrasted with the opinion of Expert A. He stated that forming a collaborative identity in general could be important for collaboration, but that it is not strictly necessary for successful collaboration. He mentioned the presence of the contract as the necessary basis for collaboration multiple times, with a clear division of roles, responsibilities and goals. He expressed the opinion that even within collaboration, goals may differ and the parties do not always have to agree, because collaboration is also possible when parties have their own interests as long as they are clear to the other party. Even though the parties aim at a collaborative relationship, conflicting interests may come up during the project. He confirmed the idea that there are always other, bigger organisations behind the collaboration, that have their own interests that may conflict with the project’s interest.

Where Expert A mentioned the need to take time for the human aspect of collaboration, in order to successfully work together, Expert B believed that an efficient collaborative relationship cannot be created beforehand, and happens during collaboration, but also depends on the people within that team. Expert B mentioned multiple times that the characteristics of the team members play a big role

in the formation of the team and the way they collaborate. This however is not taken further into this research because it is out of the scope, but might be interesting for follow-up research.

Both interviewees provided a different angle to the topic of interest, because both experts have different views on collaboration. Where Expert A clearly was pro formation of collaborative identity, Expert B did not share the view that it is necessary for successful collaboration. In compliance with literature, this research still focused on the formation of collaborative identity. However this did not mean that the views provided by Expert B were not useful. The two different opinions have resulted in a critical view on the list of provided working practices and resulted in some changes accordingly, which will be discussed in the next section.

5.1.2 Final list of working practices for Delphi study

According to the interviews with the experts, the list of working practices is adjusted. Since the opinion on the clarity of the working practices contradicted between both experts, it was decided to involve a third expert before moving on to the Delphi study. This expert differed from the other two, by actually having experience and currently working within a project alliance. The goal was to test the understandability of the questionnaire and the used terms with the target group. The expert that was consulted was a management assistant of the Alliantie Markermeerdijken and does not participate within the Delphi study.

Based on these three experts, the working practices that the experts found unclear are clarified, double ones are deleted or combined and some are added. The explanation of the adjustments can be found in Appendix B.5. The list that will be used during the Delphi study, can be seen in Table 11. The table shows the collaborative values and its contributing working practices, including an explanation of why they are stated to be important for collaboration and the source. The codes added to the list are for the purpose of analysis during the Delphi study.

Table 11 Working practices that contribute to successful collaboration

Working practice (WP)		Importance	Source
A: Equality			
A1	Create mutual understanding	Builds a close relationship	(Rahman et al., 2014)
A2	Create interdependence	Stimulates relational attitudes	(Suprpto, 2016)
B: Tolerance			
B1	Solve disputes	Having disputes does not have to be negative and can even be positive, as long as they are solved	Expert A, 2020 (appendix B.3), Expert B 2020 (appendix B.4)
B2	Create a no-blame culture	Stimulates relational attitudes	(Suprpto, 2016)
C: Honesty			
C1	Daring to express concerns about the new way of working	New norms, factors and routines have to be co-developed, and everyone has to feel comfortable about them	(Hietajärvi & Aaltonen, 2018)
C2	Align goals and identify joint goals	Stimulates team integration	(Suprpto, 2016)
C3	Create a no-blame culture	Stimulates relational attitudes	(Suprpto, 2016)
D: Group solidarity			
D1	Create a shared vision	Common element of teamworking, Stimulates team integration	(Suprpto, 2016; Suprpto, Bakker, Mooi, et al., 2015)
D2	Involving all the parties in establishing project vision and goals	Helps to articulate a joint vision	(Hietajärvi & Aaltonen, 2018)
D3	Create mutual understanding	Builds a close relationship	(Rahman et al., 2014)
D4	Engaging collaborators for the project, that facilitate the collaboration	The collaborator ensures collaborative mentality	(Hietajärvi & Aaltonen, 2018)
D5	Create mutual support amongst team members	Stimulates teamworking	(Suprpto, 2016)
D6	Create common attitude towards problem solving	Important aspect to guarantee teamworking	(Suprpto, Bakker, Mooi, et al., 2015)
D7	Align goals and identify joint goals	Lays a ground for building collaborative identity	(Hietajärvi & Aaltonen, 2018)
D8	Converge on mutual conceptions of project alliancing / Searching for knowledge or alliance principles and philosophy (“who we are becoming”)	Element of successful collaboration Lays a ground for building collaborative identity	(Greer, 2017) (Hietajärvi & Aaltonen, 2018)
E: Trust			
E1	Design reward and control systems	Important aspect to generate and control trust within an organisation	(Puusa & Tolvanen, 2006)
E2	Setting out procedures as policy and guidance for identifying attributes of trust and trust building behaviours	Increasing levels of trust and commitment; it tests the ability of the participants to collaborate and it builds relationships	(Davis & Love, 2011)
E3	Invest time into each other	Element of successful collaboration	(Greer, 2017)
E4	Ensuring that regulatory demands are met	Makes sure that the project alliance is feasible in the long run	(Hietajärvi & Aaltonen, 2018)
E5	Reflection and self-assessment	Important aspect to guarantee teamworking	(Suprpto, Bakker, Mooi, et al., 2015)
F: Shared feeling of “us” / cohesiveness			
F1	Schedule and maintain face-to-face interaction	Helps co-workers to identify themselves as part of the project	(Hietajärvi & Aaltonen, 2018)
F2	Create a shared location for colleagues to work together on location	Helps co-workers to work more effectively and feel part of the project	(Hietajärvi & Aaltonen, 2018)
F3	Design ways of working with multiple identities	Encourages everyone to participate, feel part of the project and think out of the box	(Hietajärvi & Aaltonen, 2018)
F4	Invest time into each other	Element of successful collaboration	(Greer, 2017)
F5	Enacting informal practices to reinforce the shared feeling of “us” (examples of this may be celebrating milestones, make sure colleagues are and stay happy)	Shared feeling of “us” lays ground for collaborative identity formation	(Hietajärvi & Aaltonen, 2018)
F6	Enacting formal practices to reinforce the shared feeling of “us” (an example of this may be joint feedback sessions, to make sure everyone participates and feels involved)	Shared feeling of “us” lays ground for collaborative identity formation	(Hietajärvi & Aaltonen, 2018)
F7	Creating joint external signs and a visual symbol	Creates a shared feeling of “us”, as basis for collaborative identity formation	(Hietajärvi & Aaltonen, 2018)
F8	Being different from traditional infrastructure projects	Creates a shared feeling of “us” as basis for collaborative identity formation	(Hietajärvi & Aaltonen, 2018)

F9	Identifying similarities (with other project alliances) from international examples	Creates a shared feeling of “us” as basis for collaborative identity formation	(Hietajärvi & Aaltonen, 2018)
F10	Converging on mutual conceptions of project alliancing as a team/ Searching for knowledge or alliance principles and philosophy (“who we are becoming”)	Lays a ground for building collaborative identity	(Hietajärvi & Aaltonen, 2018)
G: (Shared) commitment			
G1	Involving all the parties (that are part of the alliance agreement) in establishing project vision and goals	Helps to articulate a joint vision	(Hietajärvi & Aaltonen, 2018)
G2	Focus on joint effort for improvement	Stimulates joint working	(Suprpto, Bakker, Mooi, et al., 2015)
G3	Ensure top-management commitment	Has been identified as a critical success factor for a collaborative relationship	(Suprpto, Bakker, Mooi, et al., 2015)
G4	Long-term orientation (for the duration of the project alliance)	Critical success factor for collaborative relationship	(Suprpto, Bakker, Mooi, et al., 2015)
G5	Co-create routines	Stimulates relational attitudes	(Suprpto, 2016)
G6	Align goals and identify joint goals	Lays a ground for building collaborative identity Element of successful collaboration	(Hietajärvi & Aaltonen, 2018) (Greer, 2017)
G7	Create a shared vision	Stimulates team integration	(Suprpto, 2016)
H: Transparency / openness			
H1	Sharing information and resources	Required for teamworking Generates trust and a willing cooperation Element of successful collaboration Leads to a willingness to collaborate	(Suprpto et al., 2015) (Lee, 2004) (Greer, 2017) (Rahman et al., 2014)
H2	Sharing knowledge	Required for teamworking	(Suprpto, Bakker, Mooi, et al., 2015)
H3	Stimulate transparent, open and frequent communication	Generates trust and a willing cooperation Stimulates relational attitudes Element of successful collaboration	(Lee, 2004) (Suprpto, 2016) (Greer, 2017)
I: Consensus / unanimity			
I1	Joint risk-management	Stimulates joint working Element of successful collaboration	(Suprpto, Bakker, Mooi, et al., 2015) (Greer, 2017)
I2	Joint decision making	Stimulates joint working	(Suprpto, Bakker, Mooi, et al., 2015)
I3	Joint problem solving	Stimulates joint working	(Suprpto, 2016)
I4	Setting initial boundaries and identity claims for the project	Serves as a remedy for continuous confrontations in projects	(Hietajärvi & Aaltonen, 2018)
I5	Create common attitude towards problem solving	Important aspect to guarantee teamworking	(Suprpto, Bakker, Mooi, et al., 2015)
J: Best-for-project			
J1	Clear definition of roles and responsibilities (specifically as part of contract)	Identified element of collaborative relationships	(Suprpto, 2016)
J2	Clear definition of roles and responsibilities (specifically <i>not</i> as part of contract)	Contract should not be necessary within collaborative relationships	Expert A, 2020 (appendix B.3)
J3	Design ways of working with multiple identities	Encourages everyone to participate, feel part of the project and think out of the box	(Hietajärvi & Aaltonen, 2018)
J4	Long-term orientation (for the duration of the project alliance)	Critical success factor for collaborative relationship	(Suprpto, Bakker, Mooi, et al., 2015)
J5	Focus on joint effort for improvement	Stimulates joint working	(Suprpto, Bakker, Mooi, et al., 2015)
J6	Clear coordination from management	Stimulates teamworking	(Suprpto, 2016)
J7	Co-create routines	Stimulates relational attitudes	(Suprpto, 2016)
J8	Ensuring that regulatory demands are met	Makes sure that the project alliance is feasible in the long run	(Hietajärvi & Aaltonen, 2018)
J9	Reflection and self-assessment	Important aspect to guarantee teamworking	(Suprpto, Bakker, Mooi, et al., 2015)
J10	Being positive	Important for project alliances	Expert C, 2020 (Appendix A.3) (Graaf Reinald Alliantie, 2019)

5.2 Questionnaire set-up round one

The following step within the Delphi study was the execution of the questionnaires with the project alliance participants. The list shown in Table 11 was the basis for the questionnaires.

After an introduction given by the researcher, the questionnaire consisted of four parts to be filled in by the participants, see Table 12. The questionnaire is based on the list of working practices and its corresponding collaborative values which resulted from literature review and the scoping round (see Section 5.1.2). The full questionnaire can be seen in Appendix C.1.

Table 12 The four parts of the first questionnaire

Part no.	Part name	Explanation
1	General questions (algemene vragen)	This part asks the participants to their name, function and organisation. This is useful data for the analysis of the questionnaires.
2	Your opinion (uw mening)	This part asks the participants to score the importance of each working practice on a 5-point Likert scale from their point of view. This provides insight in the overall importance of each working practice.
3	In practice (de praktijk)	This part asks the participants to score rather or not the working practice is executed during the development phase of their project alliance, on a 5-point Likert scale. This may provide insight during the analysis as to why a working practice may be scored as important as it is.
4	Additions (toevoegingen)	This part asks to possible additions that participants may have to the questionnaire, for example missing working methods. Potentially missed working practices can be added to the second round of Delphi. The participants can also leave a comment if necessary.

5.3 Results round one

From the GRalliantie, a total of 15 participants have filled in the questionnaire for round one, a response rate of 75%. See Figure 15 for a division per expert group. The results for the GRalliantie are discussed in Section 5.3.1.

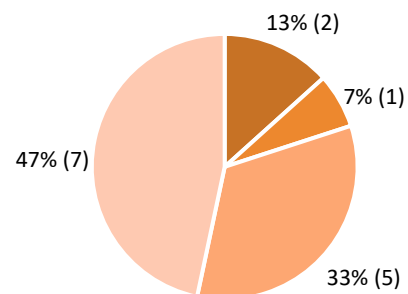


Figure 15 Number of participants GRalliantie round 1

From MMKD, a total of 16 participants filled in the first round of the questionnaire, leading to a response rate of about 72%. See Figure 16 for the number of participants per expert group. The decision is made to include the alliance staff into the sample, to increase the sample, even though this creates a difference with the GRalliantie. The results of the MMKD will be discussed in Section 5.3.2.

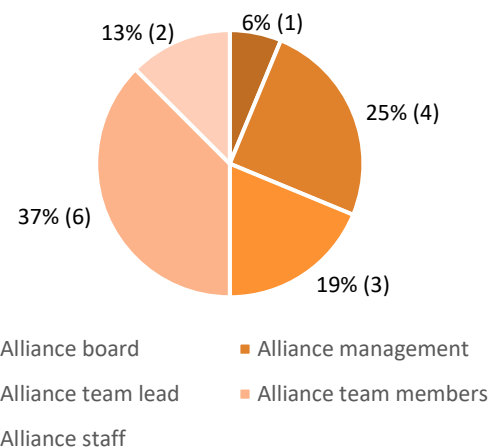


Figure 16 Number of participants Markermeerdijken round 1

The response rates for both project alliances are acceptable for round one, however it must be noted that the expert groups, consisting of the alliance board, management, team lead, team members and alliance staff, are sometimes not larger than

one participant. It should therefore be taken into account that the conclusions from this data set are not generalizable.

5.3.1 Results GRalliantie round one

The CDD for consensus was set at 60%, meaning consensus is reached if 60% or more answered the same to the questions. For example, if more than 60% has answered neutral, consensus is reached on this answer. For the first round, the main focus is to find contrast within the scores. By taking the two positive answers (important and very important) and the two negative answers (not important and not important at all) together, a clear overview of consensus is created on a working practice being important or unimportant. These two answers can be combined for preliminary research, because the main focus is to define the difference between important and unimportant at this stage. The answers of the questionnaire are converted to numbers in order to analyse them (totally unimportant = 1, unimportant = 2, neutral = 3, important = 4, very important = 5).

When looking at the GRalliantie, 45 out of the 55 working practices have reached consensus when the scores for important or very important are combined (see appendix C.2). The results show that, by consensus of agreement (both agree and strongly agree combined), 34 out of these 45 working practices have also been executed (62% of the whole sample) (see appendix C.3). From the other 11 working practices, 10 did not reach consensus about being executed or not. The only one that did reach consensus (I4 - setting initial boundaries and identity claims for the project - consensus/unanimity), is neutral.

Only 6 working practices are scored as very important by consensus, see Table 13. These working practices all belong to different collaborative values. A1 (create mutual understanding – equality) and D3 (create mutual understanding – group solidarity) however are the same working practices, but belong to different collaborative values.

Table 13 Working practices that reached consensus on "very important" for the GRalliantie

WP Code	CV	WP	%	Level of consensus (>4)
A1	Equality	Create mutual understanding	60	
C2	Honesty	Align goals and identify joint goals	67	
D3	Group solidarity	Create mutual understanding	67	
F2	The shared feeling of "us"	Create a shared location for colleagues to work together on location	80	
G1	(Shared) commitment	Involving all the parties (that are part of the alliance agreement) in establishing project vision and goals	60	
H3	Transparency / openness	Stimulate transparent, open and frequent communication	60	

No consensus is reached about working practices being unimportant or very unimportant. Only two working practices (E2 setting out procedures as policy and guidance for identifying attributes of trust and trust building behaviours – trust, with 73% and F9 identifying similarities (with other project alliances) from international examples – shared feeling of "us", with 60%) scored neutral with consensus.

5.3.2 Results Markermeerdijken round one

When looking at the MMKD as one group, 41 out of 55 working practices are considered important (by scoring either important or very important) by consensus (see appendix C.2). 29 of these working

practices (53% of the whole sample) have also reached consensus on execution (by either agree or strongly agree), see appendix C.3. From the other 12 working practices, no consensus is reached on the degree of execution.

Only two working practices, shown in Table 14, are scored as very important. The first, F2 (create a shared location for colleagues to work together on location – the shared feeling of “us”) is scored similar to the GRalliantie. The other one is G7 (create a shared vision - (shared) commitment). They both reached consensus on being very important with 60%. MMKD scored less optimistic than the GRalliantie, but also seems to be more divided, because they neither reached consensus on the non-importance of any of the working practices.

Table 14 Working practices that reached consensus on "very important" for the MMKD

WP Code	CV	WP	%	Level of consensus (>4)
F2	The shared feeling of “us”,	Create a shared location for colleagues to work together on location	60%	
G7	(Shared) commitment	create a shared vision	60%	

The only working practice scoring neutral by consensus is F10 (converging on mutual conceptions of project alliancing as a team / searching for knowledge or alliance principles and philosophy (“who we are becoming”) - the shared feeling of “us”) with 60%. There is no consensus on the execution of this working practice.

5.3.3 Results comparison GRalliantie and Markermeerdijken round one

The previous sections elaborated on the results for the GRalliantie and the MMKD separately. This section discusses the comparison between the data of both project alliances, to indicate differences or similarities. The graph in Figure 17 shows the average scores for each working practice after round one, for both the GRalliantie and MMKD on the x-axis and the y-axis respectively. See appendix C.2 for an overview of this data including name of the working practices and their average scores. The 39 green plus signs represent the working practices for which both project alliances reached consensus about its importance. This means that from both project alliances, 60% or more of the participants have scored this working practice as important or very important. Thus they agree on almost 71% of the working practices to be important.

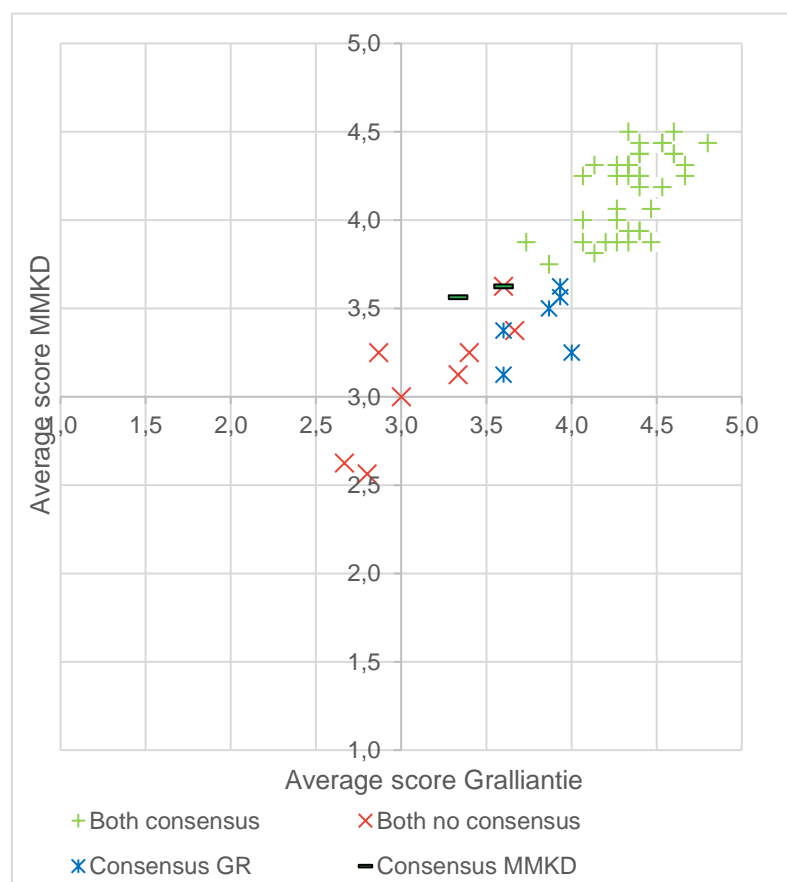


Figure 17 Graph representing consensus of working practices after round 1

No consensus is reached on the non-importance of any of the working practices, for neither of the alliances.

As the graph in Figure 17 shows, there is no consensus on the unimportance of any of the working practices. The graph shows a rather positive line of answering to the questions in the first questionnaire. Most working practices score an average higher than three, meaning that on average the participants find them important. The only ones scoring a lower average, are red crosses, the ones that no consensus is reached on. Figure 18, an overview of the amount of times each answer option is scored, confirms the positive line of answering to the first questionnaire. It shows that the answer option “important”, number four in the figure, is scored the most by far. Concluding, the results of round one show an optimistic way of answering from both project alliances and they seem to agree on the importance of working practices after this round.

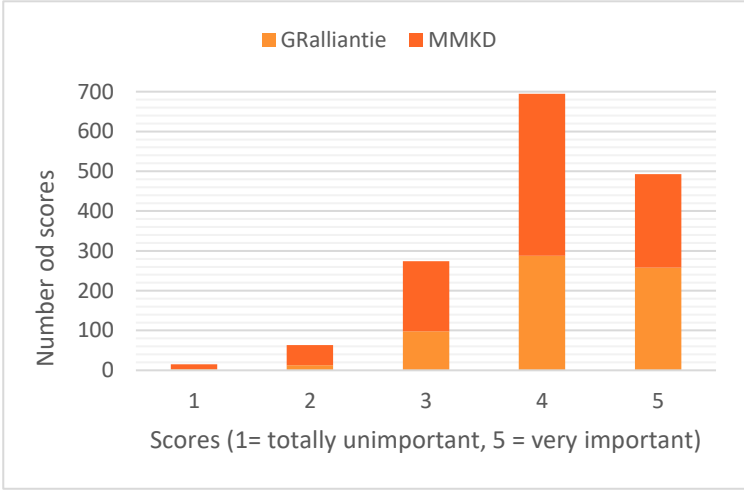


Figure 18 Number of given scores per answer option

5.4 Implications for round two

The Delphi study is based on seeking consensus through convergence and therefore it is required to intersperse the second round questionnaire with feedback from the results of the first round. Table 15 briefly explains the implications that the results of round one had on the design of the questionnaire for round two. Appendix C.4 elaborates on the implications to provide more background.

Table 15 Implications for round two

Implications round two	Reason/notion
Application of constant sum method	Positive line of answering, no prioritisation visible in data
Including all working practices in round two	More information required on the relative order of working practices
Adding average values of working practices for both GRalliantie and MMKD	Provides feedback to participants (as usual in Delphi) and places the scores into perspective
Prioritising collaborative values as well	Reliable information on the importance of the collaborative values is required as well
No distinction per expert group, same questionnaire for all participants	Expert groups are rather small and similar data is required in order to compare
Addition of working practices	Some participants proposed additional working practices, which are analysed and added to the list if approved

Questionnaire one asked the participants for additional important working practices that they might have missed within the proposed list. Six participants filled in this question, which resulted in the addition of four working practices to be added to the second round, see Table 16. Although the working practices have not been mentioned multiple times by the participants, the decision is made to include

them in the next round, because it is a valuable addition from practice, to a list that is so far only based on literature input. During the second round, the added working practices are assessed by other participants from practice, so the second round will reveal if other participants agree with the addition.

Table 16 Remarks resulting in additional working practices after round one

Remark by participant (Dutch)	Added (yes/no)	New working practice
De focus op een gezamenlijke inspanning tot verbetering: Volgens mij moet dit zijn dat de focus moet zijn op een gezamenlijke inspanning tot het bepalen en dan vasthouden van een ingeslagen koers en die duidelijk uitdragen naar een ieder en daar ook op sturen. Dan is de verbetering in mijn ogen niet nodig, dan doen we allemaal waar een ieder op zijn eigen vakgebied zo goed in is.	Yes	Active project management on the jointly predetermined course. Value: (shared) commitment & consensus/unanimity
Project is onderverdeeld in fasen. De volgende fasen tijdiger uitdenken en uitplannen is van groot belang.	Yes	Cogitate and plan the next phases early/earlier. Value: best-for-project
Vooraf afstemmen/nulmeting van procesvolwassenheid achterliggende partners om daarmee te komen tot succesvolle aanpak voor routine op samenwerking.	Yes	The inventorying of existing routines of all parties within the alliance (to acknowledge the differences and/or create a solid starting point). Value: best-for-project and equality.
Vertrouwen is genoemd, maar zou graag een verdere splitsing zien in vertrouwen in de persoon enerzijds (voel ik me veilig bij die persoon) en vertrouwen in kwaliteit anderzijds (heeft die persoon de juiste competenties).	No, because this is not an additional working practice, but a subdivision of the value trust. This is out of scope for this research.	-
Het (h)erkennen van het verschil tussen het belang van het project (korte termijn, tijd en geld) en het belang van de beheerorganisatie (lange termijn, kwaliteit) en daar samen een weg in vinden door elkaars belangen te respecteren en elkaar tegemoet te komen waar mogelijk.	Yes	Cogitate the difference between the interest of the project and the interest of the mother organisation and respect this. Value: transparency/openness.
Onze maandelijkse teamlunch.	No, the monthly team lunch mentioned by this participant falls under working practice F5. Added as example to working practice F5.	-

5.5 Questionnaire round two

The second questionnaire was set up as can be seen in Table 17. This questionnaire was created and distributed as an Excel file, due to the fact that the constant sum method is not possible in Google Forms. The Excel files were distributed and returned per email. This requires more effort for both the researcher and the participants, but the ability to use the chosen method weighs higher than the ease of use. The second questionnaire was fully based on the information from literature, the scoping round

and the results from the first questionnaire (see Section 5.4). The whole questionnaire can be found in Appendix C.5.

Table 17 Set-up of questionnaire round two

Part no.	Part name	Explanation
1	Scoring of working practices based on importance	The first part asks the participants to score the working practices on relative importance by dividing a constant amount of points over them, which are mapped per value. The newly added working practices have been added to the list.
2	Scoring collaborative values based on importance	This part asks the participants to score the collaborative values on relative importance by dividing a constant amount of points over them.
3	In practice	This part is an addition of the first questionnaire and asks the participants to answer the question if the newly added working practices have been executed during the development phase of their project alliance. This is in order to complete the data.
4	Final questions	This part closes off the second and last questionnaire. It asks the final question, if the participants identify themselves with the project alliance that they are currently working in. This is additional information that might provide useful insight to conclude the Delphi study.

5.6 Results round two

After round two, the total number of participants reduced to 21. For the GRalliantie, ten out of 15 participants filled in the questionnaire, a response rate after round one of almost 67% (see Figure 19). For MMKD, 11 out of 16 participants filled in the questionnaire, with a response rate after round one of almost 69% (see Figure 20). In order to have a reliable set of participants, the minimum of ten participants per project alliance was required for this research (see Section 2.2.4), so this demand is met.

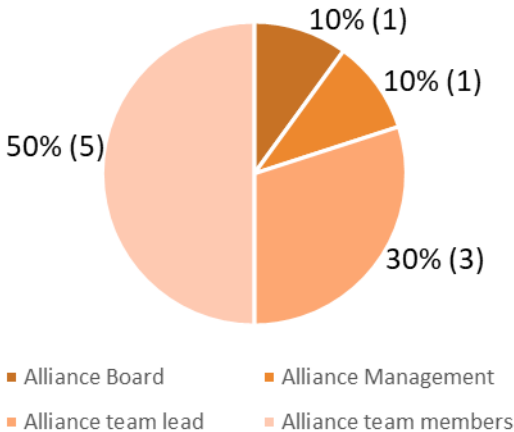


Figure 19 Number of participants GRalliantie round 2

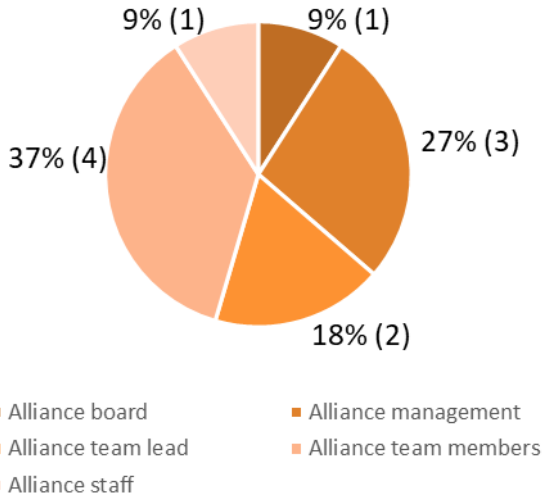


Figure 20 Number of participants MMKD round 2

The analysis first dives into the results of the collaborative values, before moving on to the working practices. The working practices were analysed on alliance level as well as on expert group level. The raw data from the second questionnaire can be found in Appendix C.6.

5.6.1 Results round two: collaborative values

Round two asked the participants to score the collaborative values with the constant-sum method, which was introduced in Section 2.2.4, in the same way as for the working practices. This provides an overview of the importance of each of the collaborative values. See Appendix C.7 for this data. Based on the average scores of each collaborative value, it can be concluded that the first five collaborative values are equal for both project alliances, see Table 18. Furthermore, the differences within the scores of the GRalliantie are larger than within the MMKD. This is further elaborated in Section 6.2.1.

Table 18 Order of collaborative values for GRalliantie and MMKD (round 2)

GRalliantie			Markermeerdijken		
	Collaborative value	Average score		Collaborative value	Average score
1	Transparency / openness	14,0	1	Trust	12,8
2	Honesty	13,2	2	Honesty	12,7
3	Trust	12,1	3	Best-for-project	12,4
4	Best-for-project	10,3	4	Transparency / openness	10,5
5	(shared) Commitment	9,8	4	(shared) Commitment	10,5
6	Equality	8,5	6	The shared feeling of “us”	10,4
6	The shared feeling of “us”	8,5	7	Group solidarity	8,5
8	Consensus / unanimity	8,2	8	Tolerance	8,0
9	Group solidarity	7,9	9	Equality	7,4
10	Tolerance	7,5	10	Consensus / unanimity	7,0

5.6.2 Results round two: unimportant working practices

Before starting the analysis to define the most important working practices, the analysis started with the unimportant working practices in order to define if any working practice could be left out of the analysis. This was not possible after round one yet, because no consensus was reached on unimportant working practices at that stage. A working practice was defined as unimportant if both project alliances agree by consensus on its unimportance and nobody within their project alliance deviated from this opinion. The boundary for unimportance was set as ≤ 9 , which included the negative side of the scoring range. Anyone scoring ≥ 15 for that same working practice, was seen as an important outlier and a reason to not dismiss the working practice, because he or she scored it to be very important. In that case, further analysis is advised.

Based on the explanation above, it was defined that a working practice would be left out, if:

- 60% or more consensus on the score being ≤ 9 within *both* project alliances;
- No outliers of ≥ 15 (meaning no one may have scored the working practice higher than 15).

Application of these criteria on the second round, resulted in seven working practices to be labelled as unimportant for the formation of collaborative identity, which can be seen in Table 19. These working practices are dismissed unless relevant reasons are found.

Concluding, the seven working practices listed in Table 19 are defined to be unimportant to form a collaborative identity and are therefore unimportant for the remainder of this research. These unimportant working practices will be left out of further research, meaning the list of possible working practices contributing to collaborative identity formation is shortened from 61 to 54.

Table 19 Unimportant working practices after round two

Collaborative Value	Code	WP
Trust	E1	Design reward and control systems
	E2	Setting out procedures as policy and guidance for identifying attributes of trust and trust building behaviours
Group solidarity	D8	Converge on mutual conceptions of project alliancing / Searching for knowledge or alliance principles and philosophy (“who we are becoming”)
	F8	Being different from traditional infrastructure projects
	F9	Identifying similarities (with other project alliances) from international examples
Consensus /unanimity	I4	Setting initial boundaries and identity claims for the project
Best-for-project	J8	Ensuring that regulatory demands are met

5.6.3 Results round two: important working practices

In order to know which working practices should be steered on to stimulate collaborative identity formation, the most important working practices should be determined. To determine the most important working practices, the relevance of the collaborative value that it contributes to, must also be taken into account. A combined score for each working practice was determined by multiplying the score for the working practice by the score of the collaborative value. This resulted in a score where both the collaborative value and the working practice is represented. In this calculation a weight factor (wf) was added to manipulate the ratio of importance between the values and the working practices, as seen in Equation 1. Since the collaborative value was seen as more important, the score for the collaborative value is thereby weighed more heavily compared to the score of the working practice. The weight factor in this case was set at 1.5, which made the collaborative value half as important as the working practice. This decision was made due to several reasons. First, the collaborative values are characteristics of project alliancing or collaborative identity, retrieved from project alliancing literature, project alliancing practice and literature on collaborative identity. The working practices were mostly retrieved from literature on collaboration, without a direct link to collaborative identity or project alliancing. Second, the end goal is more important than the way to get there, and the working practices in the end all contribute to one of the collaborative values.

Equation 1 End score for the working practices

$$\begin{aligned}
 & \text{End score working practice} \\
 & = (\text{avg. score of working practice after round 2})^1 \\
 & * (\text{avg. score of collaborative value})^{wf}
 \end{aligned}$$

Using this scoring method, the overall importance of each working practice supporting a specific value could be calculated after which the score was used for further analysis.

5.6.4 Results round two: important working practices GRalliantie

The top ten important working practices for the GRalliantie based on the total score (as defined in Equation 1), can be seen in Table 20. An ordered top ten is given to provide an overview of the top most important working practices for this project alliance, including the codes for the working practices (WP code), collaborative value it belongs to (CV), the written working practices (WP), the average score for the working practice (av. WP), standard deviation (std. dev.), level of consensus above or equal to 11 (cons. ≥11), average score for the collaborative value (av. CV) and the total end score. The level of

consensus is chosen this way to roughly create a difference between unimportant (≤ 9), neutral ($=10$) and important (≥ 11) working practices. Practically each given score above ten indicates relevant importance and each score under nine unimportance.

In the end, the amount of working practices which can be implemented in a project will depend heavily on the amount of time, money and willingness. The complete list can be found in Appendix C.8.

These top ten important working practices for the GRalliantie corresponds to five different collaborative values: trust, transparency/openness, honesty and best-for-project and the shared feeling of “us”. The first ones correspond to the way the collaborative values were scored; they form the top four collaborative values for the GRalliantie. The shared feeling of “us” was not in the top five, however F2 (create a shared location for colleagues to work together on location – the shared feeling of “us”) received the highest score for a working practice, making it important enough to reach the top ten.

Table 20 Top ten working practices for the GRalliantie

No	WP Code	CV	WP	Av. WP	Std. dev.	Cons. ≥ 11	Av. CV	Total
1	E3	Trust	Invest time into each other	17,7	3,1	1,0	12,1	744,99
2	E5	Trust	Reflection and self-assessment	14,7	4,8	0,6	12,1	618,72
3	H3	Transparency / openness	Stimulate transparent, open and frequent communication	11,2	2,1	0,3	14	586,69
4	H1	Transparency / openness	Sharing information and resources	10,8	4,7	0,3	14	565,74
5	C2	Honesty	Align goals and identify joint goals	11,7	4,2	0,5	13,2	561,11
6	J2	Best-for-project	Clear definition of roles and responsibilities (specifically <i>not</i> as part of contract)	16	3,8	0,9	10,3	528,90
7	H2	Transparency / openness	Sharing knowledge	9,6	3,4	0,2	14	502,88
8	C1	Honesty	Daring to express concerns about the new way of working	9,8	4,6	0,3	13,2	469,99
9	J12	Best-for-project	Cogitate and plan the next phases early/earlier	13,8	4,2	0,6	10,3	456,18
10	F2	The shared feeling of "us"	Create a shared location for colleagues to work together on location	18,2	2,3	1,0	8,5	451,02

When comparing this to the first Delphi round and multiplying the scores of the first round with the scores for the collaborative values as well, the content of the top ten does not look very different (See Appendix C.9). Only J12 (cogitate and plan the next phases early/earlier – best-for-project), F2 (create a shared location for colleagues to work together on location - the shared feeling of “us”) and J2 (Clear definition of roles and responsibilities (specifically *not* as part of contract) – best-for-project) were not present in the top ten after the first round. J12 was a newly added working practice and therefore could not be in there. The fact that the top ten is so similar shows that there are no extreme differences between the first and second round, although the second round shows a larger difference between scores.

However, the Delphi method was used for this research in order to find consensus on the most important working practices. Only three out of the top ten working practices have reached consensus on a score ≥ 11 .

This does not mean that besides these three, no consensus is reached on the importance of any other working practice. A total of 12 working practices have reached consensus on importance ≥ 11 , see Table 21. The working practices that score the highest on importance, are not necessarily working practices that contribute to an important collaborative value in order to form a collaborative identity.

Table 21 Working practices that reached consensus ≥ 11 for the GRalliantie

Code	CV	WP	Rank order no.
A1	Equality	Create mutual understanding	16
D1	Group solidarity	Create a shared vision	27
D2	Group solidarity	Involving all the parties in establishing project vision and goals	28
D3	Group solidarity	Create mutual understanding	30
E3	Trust	Invest time into each other	1
E5	Trust	Stimulate relationship-preserving behaviour	3
F1	The shared feeling of "us"	Schedule and maintain face-to-face interaction	20
F2	The shared feeling of "us"	Create a shared location for colleagues to work together on location	12
F4	The shared feeling of "us"	Invest time into each other	17
G1	(Shared) commitment	Involving all the parties (that are part of the alliance agreement) in establishing project vision and goals	18
J2	Best-for-project	Clear definition of roles and responsibilities (specifically not as part of contract)	8
J4	Best-for-project	Long-term orientation (for the duration of the project alliance)	13
J12	Best-for-project	Cogitate and plan the next phases early/earlier	11

5.6.5 Results round two: important working practices Markermeerdijken

Table 22 shows the rank order for the top ten working practices and its corresponding collaborative values for MMKD. The whole rank order can be found in Appendix C.8. The top ten consists of two similar working practices belonging to a different collaborative value, namely E3 and F4 (invest time into each other – trust/the shared feeling of "us"). Since a working practice can only be executed once, an extra working practice was added to complete the top ten.

The top ten consists of working practices from the collaborative values of trust, best-for-project, honesty and the shared feeling of "us". All of these values are in their top five of collaborative values, except for the shared feeling of "us" on a sixth place. They ended up in the top ten anyhow due to their high score for the working practice itself.

Table 22 Top ten important working practices for the Markermeerdijken

No.	WP Code	CV	WP	Av. WP	Std. Dev.	Cons. ≥ 11	Av. CV	Total
1	E3	Trust	Invest time into each other	16,2	3,2	1,00	12,8	741,04
2	J1	Best-for-project	Clear definition of roles and responsibilities (specifically as part of contract)	13,5	3,8	0,64	12,4	587,49
3	E5	Trust	Reflection and self-assessment	12,6	3,3	0,55	12,8	578,68
4	C2	Honesty	Align goals and identify joint goals	12,7	4,0	0,64	12,7	576,02
5	J6	Best-for-project	Clear coordination from management	12,7	5,1	0,55	12,4	555,74
6	J10	Best-for-project	Being positive	12,3	3,2	0,45	12,4	535,89
7	F2	The shared feeling of "us"	Create a shared location for colleagues to work together on location	15,6	4,2	0,73	10,4	524,43
x	F4	The shared feeling of "us"	Invest time into each other	15,4	3,6	0,82	10,4	515,28
8	J4	Best-for-project	Long-term orientation (for the duration of the project alliance)	11,3	4,8	0,45	12,4	492,22
9	J12	Best-for-project	Cogitate and plan the next phases early/earlier	11,0	4,5	0,45	12,4	480,31
10	F1	The shared feeling of "us"	Schedule and maintain face-to-face interaction	14,2	4,6	0,55	10,4	475,64

When comparing the top ten of the second round to the top ten of the first round, when multiplying those scores by the average of the collaborative value as well, the top ten does not look so different (see Appendix C.9). There are four working practices that were not in the top ten of round one, that are now after round two. Those are F2 (Create a shared location for colleagues to work together on location – the shared feeling of “us”), F4 (Invest time into each other – the shared feeling of “us”), J12 (Cogitate and plan the next phases early/earlier – best-for-project) and F1 (Schedule and maintain face-to-face interaction – the shared feeling of “us”). J12 was not included in round one yet and therefore could not be in the top ten of that round. The other three working practices are all linked to the collaborative value of shared feeling of “us”, which seems to be more important when participants are asked to decide on relative importance.

A total of eight working practices have reached consensus on importance ≥ 11 . Five out of these are in the top ten most important working practices for MMKD. F5 (enacting informal practices to reinforce the shared feeling of “us” (examples of this may be celebrating milestones, make sure colleagues are and stay happy) - the shared feeling of “us”), an important collaborative value, is only four places away from the top ten. However, A1 (create mutual understanding – equality) and D1 (create a shared vision – group solidarity) are placed much lower in the rank order.

Table 23 Working practices that reached consensus ≥ 11 for Markermeerdijken

WP Code	CV	WP	Rank order no.
A1	Equality	Create mutual understanding	39
C2	Honesty	Align goals and identify joint goals	4
D1	Group solidarity	Create a shared vision	28
E3	Trust	Invest time into each other	1
F2	The shared feeling of “us”	Create a shared location for colleagues to work together on location	9
F4	The shared feeling of “us”	Invest time into each other	10
F5	The shared feeling of “us”	Enacting informal practices to reinforce the shared feeling of “us” (examples of this may be celebrating milestones, make sure colleagues are and stay happy)	15
J1	Best-for-project	Clear definition of roles and responsibilities (as part of contract)	3

5.6.6 Results round two: comparison between GRalliantie and Markermeerdijken

The analysis of both separate working practices showed the scores per project alliance, but also showed large differences within their top most important working practices. Therefore, it is also relevant to analyse the project alliances in comparison to each other.

Results round two: overall comparison of data

Figure 21 shows the data of the working practices, converted to the end scores, for both project alliances, with the GRalliantie and the MMKD on the x-axis and y-axis respectively. When comparing this data to the data after round one, it is visible that the scores now divide themselves much more over the axes, giving a better view of the importance of working practices. Working practices that gather around the black centre line, scored approximately similar for both project alliances. Working practices that are in between the two yellow lines, differ a maximum of 100 from each other, in between the blue line they differ a maximum of 200 from each other. It is however clearly visible that still an amount of the data is located outside of these lines, meaning that there are working practices of which their scores largely deviate between both project alliances.

The largest deviator from the centre line is a green cross, being H3 (stimulate transparent, open and frequent communication - transparency/openness). See Table 24 for the data belonging to the working practices. The end score for the GRalliantie is much higher than the end score for the MMKD in this case. This results from a difference within the score of collaborative value, but also in score of working practices. Each participant within the GRalliantie scored this working practice between a score of ten and 15, and consensus is reached on a score of 10 by 70%. MMKD on the other hand, score dan average of 7,3 for this working practice, with the scored divided between zero and 12. Both project alliances scored this working practice to have been executed during the development phase of their project, with consensus >3 of 67% and 87% for the GRalliantie and MMKD respectively.

The others that stand out because of how far they deviate from the centre line, are where MMKD scores much higher than GRalliantie and do all belong to the working practice best-for-project. This collaborative value scored higher for MMKD by about two points, creating a part of the difference in favour of their end scores already. The differences within the scores for the working practices will be discussed next.

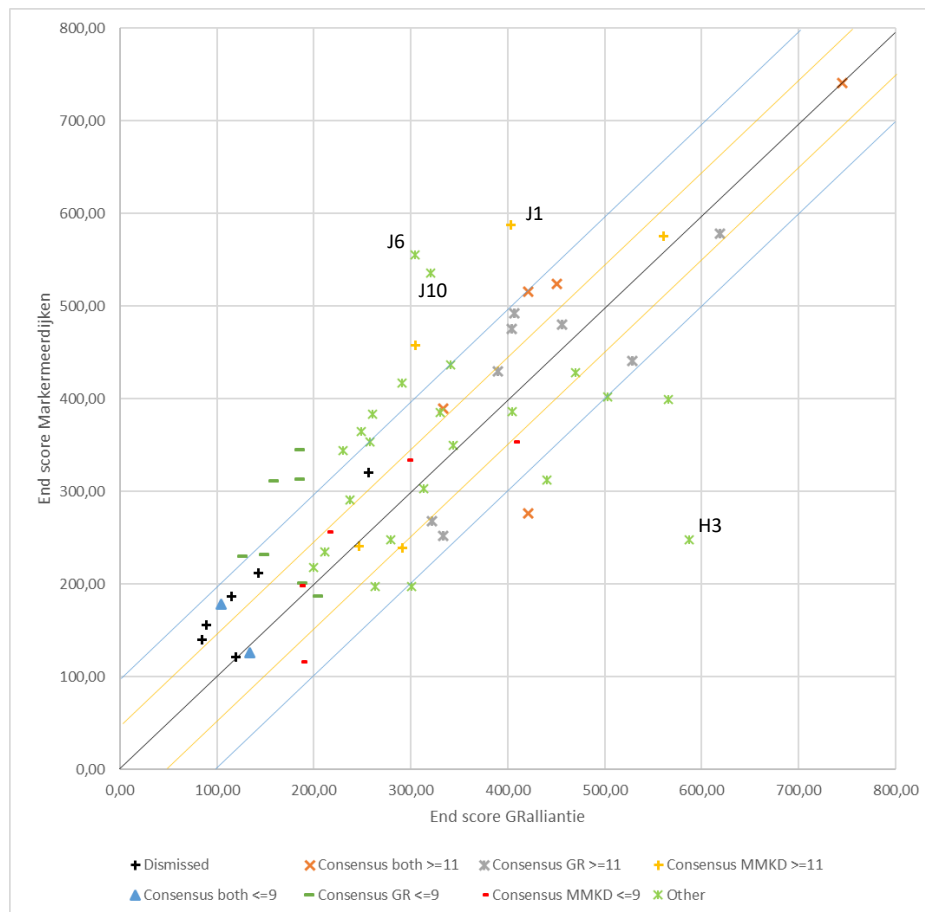


Figure 21 Consensus plotted for both project alliances

J6 (clear coordination from management – best-for-project), is one of those where MMKD scores much higher for the end score of this working practice. MMKD scored this working practice between five and 20, almost reaching consensus ≥ 11 (55%). GRalliantie reached consensus on the neutrality of this working practice, and scored it between zero and 15 (60%). Neither of the project alliances reached consensus on the execution of this working practice, because scores deviated. However, GRalliantie almost reached consensus on a score < 3 (on a scale from one to five), meaning they lean towards the idea that this working practice was not fully executed.

J10 (being positive – best-for-project), is scored slightly higher by the MMKD. MMKD did not reach consensus on this working practice, but with a division between ten and 15 and an outlier to a score of 20, they are on the positive side of importance. The GRalliantie reached consensus on a score of 10, meaning they score this working practice to be neutral overall. Only one person scored this working practice to be totally unimportant. Both project alliances reached consensus on the execution of it, with 87%.

J1 (clear definition of roles and responsibilities (specifically as part of contract) – best-for-project) considers a clear definition of roles and responsibilities (specifically as part of contract). The end score for this working practice is much higher for MMKD than for the GRalliantie. This mostly comes from the difference in scores for collaborative value, because the scores for the working practice lie closely together.

Table 24 Data belonging to outlier working practices

WP Code	WP	WP score GR	CV score GR	WP score MMKD	CV score MMKD	End scores
H3	Stimulate transparent, open and frequent communication	11,2	14	7,3	10,5	GR: 586,69 MMKD: 247,45
J6	Clear coordination from management	9,2	10,3	12,7	12,4	GR: 304,12 MMKD: 555,74
J10	Being positive	9,7	10,3	12,3	12,4	GR: 320,65 MMKD: 535,89
J1	Clear definition of roles and responsibilities (specifically as part of contract)	12,2	10,3	13,5	12,4	GR: 403,29 MMKD: 587,49

Results round two: comparison of the top ten per project alliance

When comparing the most important working practices for each project alliance, differences are noted, as well as similarities, see Table 25. Five working practices are represented in the top ten of both project alliances. Two working practices are present within both top three's: E3 (invest time into each other – trust) and E5 (reflection and self-assessment – trust). E3 is on a first place for both project alliances. Possible reasons for this notion are discussed in Section 8.2.3.

Table 25 Comparison of the top ten for both alliances

No.	GRalliantie	Markermeerdijken
1	E3 Invest time into each other	E3 Invest time into each other
2	E5 Reflection and self-assessment	J1 Clear definition of roles and responsibilities (specifically as part of contract)
3	H3 Stimulate transparent, open and frequent communication	E5 Reflection and self-assessment
4	H1 Sharing information and resources	C2 Align goals and identify joint goals
5	C2 Align goals and identify joint goals	J6 Clear coordination from management
6	J2 Clear definition of roles and responsibilities (specifically <i>not</i> as part of contract)	J10 Being positive
7	H2 Sharing knowledge	F2 Create a shared location for colleagues to work together on location
8	C1 Daring to express concerns about the new way of working	F4 Invest time into each other
9	J12 Cogitate and plan the next phases early/earlier	J4 Long-term orientation (for the duration of the project alliance)
10	F2 Create a shared location for colleagues to work together on location	J12 Cogitate and plan the next phases early/earlier
		F1 Schedule and maintain face-to-face interaction

5.6.7 Results round two: comparison expert groups GRalliantie

Now that both the project alliances as well as the differences and similarities between them are analysed, the expert groups are also separately analysed (see Appendix C.10). When people within expert groups do not agree with each other, this might provide useful insight when working practices need to be implemented. However, the results shown next are not reliable nor generalizable, due to the fact that the expert groups are extremely small. It is only shown to provide an idea of how this could be analysed, and in order to use the information within a final proposal for the GRalliantie.

What stands out mostly within the data set, shown in Table 26, is that the alliance management and alliance team leads are deviating the most from each other. This could be useful information when collaborative identity needs to be formed.

Not only the differences, but also the similarities in terms of consensus are relevant. There are five working practices that each working group reached consensus about ≥ 15 : A1 (create mutual understanding - equality), D2 (involving all the parties in establishing project vision and goals – group solidarity), E3 (invest time into each other - trust), F2 (create a shared location for colleagues to work together on location – shared feeling of “us”), F4 (invest time into each other – shared feeling of “us”). Six when looking at consensus ≥ 11 , namely the previous ones plus F1 (schedule and maintain face-to-face interaction – shared feeling of “us”).

Table 26 Averages per expert group GRalliantie

WP	Average per expert group				Max. difference
	Board	Management	Team lead	Project team	
E5	10,0	20,0	13,3	15,4	10,0
C1	10,0	5,0	14,0	8,2	9,0
G1	15,0	15,0	6,7	15,4	8,7
D1	20,0	20,0	11,7	15,0	8,3
G6	10,0	5,0	13,3	6,0	8,3
H1	10,0	5,0	13,3	10,6	8,3
I5	10,0	5,0	13,3	5,0	8,3
F6	15,0	10,0	6,7	9,6	8,3
I1	10,0	15,0	6,7	13,4	8,3
J5	10,0	15,0	13,3	7,0	8,0

There are four working practices that reached consensus ≤ 9 in each expert group: A2 (create interdependence – equality), D4 (engaging collaborators for the project, that facilitate collaboration – group solidarity), F10 (Converging on mutual conceptions of project alliancing as a team/ Searching for knowledge or alliance principles and philosophy (“who we are becoming”) – the shared feeling of “us”) and J7 (co-create routines – best-for-project).

5.6.8 Results round two: comparison between expert groups Markermeerdijken

When looking at the largest differences between expert groups of the MMKD (see Appendix C.10), the expert group of the staff stands out most, as can be seen in Table 27. Between the averages of all expert groups at a single working practice, the staff shows the largest deviation, where the rest of the expert groups reasonably agree. When looking at the ten working practices with the largest difference, the staff shows the largest deviation from another expert group in seven of the cases. For all of these cases, the average score of the staff deviates significantly compared to the other expert groups. Slight

deviations are no problem and could also be the result of the different interpretations of the participants within the research or a different way or scoring.

For the other three working practices with large differences within the mean, the expert group of team leads mostly stands out by scoring the somewhat opposite of the other groups. When looking further into the data, it stands out that team leads least agree with the management. Not all examples will be discussed here, but this provides relevant information for the in-depth discussion and implementation of the results, which will follow in the next chapter.

What immediately stands out when looking at the differences per expert group within the GRalliantie, is that the deviations are smaller than within the MMKD. Another difference with the MMKD is that the deviations for the GRalliantie cannot be clarified by one deviating expert group.

When looking at the consensus, we see less agreement than within the GRalliantie. There is only one working practice that reached consensus ≥ 11 in each expert group: E3 (invest time into each other – trust), as well as only one working practice that reached consensus ≤ 9 in each expert group: A2 (create interdependence – equality).

Table 27 Averages per expert group Markermeerdijken

WP	Average per expert group					Max. difference
	Staff	Board	Management	Team lead	Project team	
A3	5,0	12,0	18,3	11,0	14,3	15
D6	20,0	7,0	8,3	5,0	10,0	15
J2	20,0	8,0	11,7	5,0	9,5	15
D4	1,0	6,0	3,3	15,0	8,0	14
G5	5,0	6,0	1,7	15,0	9,3	13,3
A1	5,0	12,0	18,3	11,0	14,3	13,3
C1	20,0	8,0	6,7	8,5	9,8	13,3
F6	20,0	10,0	8,3	10,0	9,5	11,7
C2	5,0	14,0	15,0	16,0	11,0	11,0
D5	5,0	7,0	1,7	12,5	10,3	10,8

6 DISCUSSION

This chapter discusses the results of the Delphi study as elaborated in Chapter 5. The results are placed into perspective by seeking an explanation. Round one will be discussed in Section 6.1, followed by the discussion on round two in Section 6.2. Section 6.3 provides a conclusion on the discussion, after which Section 6.4 elaborates on the contribution of the results to science and Section 6.5 of the contribution to practice. Section 6.6 finally outlines the limitations of this research.

6.1 Discussion round one

This section first discusses the results of round one. The results of the GRalliantie will be discussed, followed by the results of MMKD and a comparison between both alliances.

6.1.1 Discussion round one - GRalliantie

The most relevant result of round one for the GRalliantie (see Section 5.3.1) was the positive line of scoring all working practices: almost 82% of working practices were scored to be important or very important. None were scored as unimportant or very unimportant. This might imply that the participants intrinsically believe that all of these working practices are important, but it might also be a form of response bias. This may happen when participants unwittingly answer in a way that is socially desirable, which may cause them to score questions toward the positive ends of rating scales (Smith, 2014) such as Likert-scales. The answers tend to be in compliance with the goal of the researcher. Positivity bias, a form of response bias, indeed explains a tendency towards positivity as a social norm (Hoorens, 2014). Another explanation may be that, for example due to the size of the project and the complexity of forming collaborative identity, many working practices are actually perceived to be important. The averages of importance are however too closely together to be able to say anything about the priority of importance.

The working practices linked to the collaborative value the shared feeling of “us” have reached the least consensus. Remarkable is that these are all statements by Hietajärvi & Aaltonen (2018) who have specifically researched the formation of collaborative identity in project alliances in Finland. Section 6.2.2 elaborates on this finding.

A visible similarity within the working practices that scored very important with consensus, is the focus on shared goals. Both C2 (align goals and identify joint goals – honesty) and G1 (involving all the parties (that are part of the alliance agreement) in establishing project vision and goals – (shared) commitment) focus on identifying mutual goals and involving all parties while doing that. This implies that cooperatively creating common goals is an important aspect in the formation of collaborative identity for the GRalliantie. This is substantiated by their plan of action, which states an approach for creating common plans with the involved parties (Graaf Reinald Alliantie, 2018).

6.1.2 Discussion round one: Markermeerdijken

The results of MMKD (see Section 5.3.1) after round one also show a rather positive line of answering: almost 75% of the working practices were scored to be important or very important by consensus. This might be explicable by the same reasons as for the GRalliantie.

6.1.3 Discussion round one: comparison GRalliantie and Markermeerdijken

What stands out most when comparing the results from the GRalliantie and MMKD (see Section 5.3.3) is the high percentage of working practices they both score to be important or very important, namely 71%. This means that from both project alliances, 60% or more of the participants have scored this working practice as important or very important. Thus even though the project alliances are two different teams with different goals and people involved, they agree on almost 71% of the working

practices to be important. This is an interesting notice and implies that a large amount of the working practices are important for the formation of collaborative identity for both project alliances and possibly for other alliances as well. It may however also be explained by the positive line of answering that was visible within both alliances, which could also be explained by response bias (as discussed in Section 6.1.1).

6.2 Discussion round two

This section will discuss the findings for both project alliances of round two. The collaborative values will first be elaborated, before moving on to unimportant and thereafter the important working practices for both project alliances.

6.2.1 Discussion round two: collaborative values

None of the collaborative values scored significantly low, meaning that all of the ten collaborative values that were extracted from literature seem to be validated by practice. The top five based on the average scores (see Section 5.6.1), is similar for both project alliances, although placed in another order. This means that they agree on the importance of the top five collaborative values. It might imply that these five are important collaborative values that are important for other project alliances as well. The top five collaborative values are discussed first, followed by the lower five.

Top five

The collaborative values of trust and honesty seem to be the most important ones for the formation of collaborative identity for these two project alliances. This might imply the importance of these two collaborative values for other project alliances as well.

Trust is not mentioned as one of the alliance principles of either of the project alliances. It is however mentioned as an important aspect. Expert C mentioned that trust is one of the most important aspects of collaboration within the MMKD (see Appendix A.3). The GRalliantie mentions that the success of their project stands or falls with mutual trust (van den Berg & Goelema, 2015). The need for trust within successful collaboration is also confirmed by literature (Chao-Duivis, 2018; Hietajärvi, 2017).

Honesty is required to build a close relationship (Rahman et al., 2014) and the base for any form of collaboration and it is therefore no surprise that this value is found within the top five for both project alliances. If the groups cannot build a relationship on honesty, other collaborative values such as trust, best-for-project and transparency cannot be met either. Honesty was also mentioned as an important aspect by Expert B (see Appendix B.4), which contributes to the required no-blame culture within project alliances.

Best-for-project and transparency or openness are two alliance principles that both project alliances defined in their contracts. These principles were also distinguished as typical alliance features in Table 3. These collaborative values therefore seem important for project alliancing success in general, which might be the result of its contribution to collaborative identity formation.

The collaborative value of (shared) commitment makes sense to be in the top five for both project alliances, because following literature it is important for project alliancing as well as collaborative identity formation (Davis & Love, 2011; Hietajärvi & Aaltonen, 2018; Puusa & Tolvanen, 2006). All parties within the alliance agreement should be committed to the project and to the collaboration in order to reach their common goals.

Lower five

Equality refers to the way individuals see themselves compared to their team members and contributes to a strong relationship (Hietajärvi & Aaltonen, 2018). This seems to be important,

however equality is not scored as one of the most important collaborative values for neither of the project alliances. It is however mentioned by the GRalliantie in a memo on the choice for a project alliance (van den Berg & Goelema, 2015). Since most people within the project alliances have had working experience before starting on this project, it might be that equality is something that they assume to be there and should not be worked for as much as some of the others.

The value shared feeling of “us” is not in the top five most important collaborative values for either project alliance. This is interesting, since following Hietajärvi & Aaltonen (2018) this value belongs to the definition of collaborative identity. However, since it is so closely related to the definition of collaborative identity, it might also be seen as less important in comparison to others, because it is seen more as the goal, instead of the means to get there. Neither of the project alliances mentions anything similar within their alliance documents.

Since tasks have to be performed together, solidarity to each other is important, to make people feel at ease within their new setting. The value of group solidarity is associated with trust and helps to create motivation to build a collaborative identity (Lee, 2004).

Tolerance is a value that leads to a willingness to cooperate (Rahman et al., 2014). It is about the level of acceptance of the other team members within the project alliance. It might be that this collaborative value is not scored high, because when the project alliance is decided to move forward, the willingness to cooperate should already be there.

Consensus/unanimity does not score high in comparison to the others, although this is the third alliance principle that both project alliances set up in their contracts. This might have to do with a hierarchical difference in the interpretation of this collaborative value. Not everyone always agrees with each other and friction can also be useful, such as both experts mentioned during the scoping round interviews. The board, where decisions are mostly made, should be unanimous, but this might not hold for every individual within the project alliance.

6.2.2 Discussion round two: unimportant working practices

Five out of the seven working practices (D8, F8, F9, F10, I4 and J8, see Table 17) that are labelled unimportant are working practices that were retrieved from collaborative identity literature. These were all working practices that were identified by Hietajärvi & Aaltonen (2018) during their research to collaborative identity formation within the first Finnish project alliance. So why are these working practices labelled as unimportant during this research?

The first aspect that potentially explains this difference, is culture. The research by Hietajärvi & Aaltonen (2018) focused on a Finnish project alliance, while this research only looks at Dutch project alliances. Figure 22 shows the relative cultural differences between national societies based on the six dimensions of national culture by Hofstede et al. (2010). The biggest notified differences are the scores for individualism, masculinity and long term orientation, which might reveal the reason for their different reasoning. This is not further looked into because it falls out of the scope of this research, but is advised for further research.

Another relevant difference between this research and the one by Hietajärvi & Aaltonen (2018) is that the Finnish research concerned the very first project alliance in Finland, while this research concerned two project alliances in a country that executed project alliances before, with parties that already had some alliance experience. Different as well was the types of project under research. The Finnish project alliance under research was the Liekki project, a railway renovation project to reduce maintenance costs in the future. The two Dutch project alliances are both dike reinforcement projects.

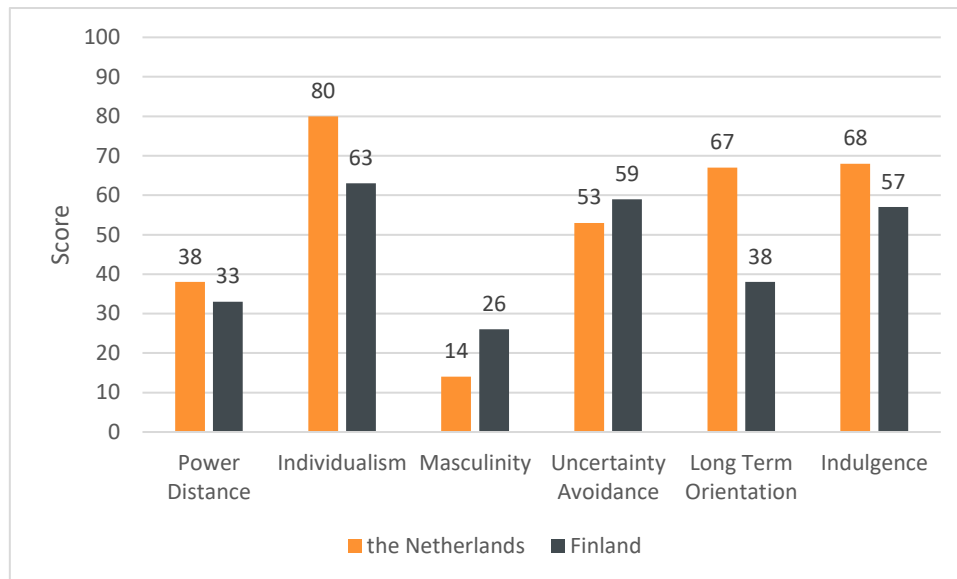


Figure 22 Relative differences of national culture between Finland and the Netherlands

The deviation might also be reinforced by the different research methods that were used within both researches. Where the Finnish research mainly used interviews, this research mainly used literature and the Delphi method. In order to know exactly where this apparent contradiction comes from, more research should be done. This might lead to interesting new information concerning the type of project or culture when forming collaborative identity within a project alliance and might influence the suitability of using project alliances as a project delivery method.

The other two working practices (E1 design reward and control systems – trust, and E2 setting out procedures as policy and guidance for identifying attributes of trust and trust building behaviours - trust) that are labelled unimportant were not retrieved from Hietajärvi & Aaltonen (2018). These practices concern the collaborative value of trust. This might seem remarkable, since the collaborative value of trust is highly scored by both project alliances, as seen in Section 5.6.1. However, these working practices do in all probability not contribute most to this collaborative value in the opinion of the participants. This is substantiated by the average scores for both these working practices. MMKD scored 4,6 and 7,0 for E1 and E2 respectively, where the GRalliantie scored a 3,4 and 6,1 for the same working practices, respectively.

6.2.3 Discussion round two: important working practices

To determine an order in the most important working practices for both project alliances, an end score is determined, which also included the scores for the collaborative values (see Section 5.6.3). The decision was made to weigh the score for the collaborative value heavier than the score for the working practices by making use of a weight factor. This is a decision that affects the end scores and thereby the final order of importance of working practices and their corresponding collaborative values. The decision for this weight factor manipulates the data and therefore changes the outcomes. Therefore, the effect of the weight factor was assessed before deciding the number that the weight factor should have. This was done by assessing three different weight factors: 1, 1.5 and 2. Due to the fact that the collaborative values were known to contribute to collaborative identity formation, as discussed in Section 4.4.1, the decision was made that the weight factor should be higher than 1. A weight factor of two however would be twice as large as the score for the working practice, undermining the importance of the scores for the working practices. A weight factor of 1.5 was therefore chosen to manipulate the end scores, without creating an unrealistic difference between the two scores.

6.2.4 Discussion round two: important working practices GRalliantie

As the results indicate (see Section 5.6.4), a working practice that might have scored high and reached consensus, does not directly seem to be important for the formation of collaborative identity. When the working practice seems important, but does not contribute to an important collaborative value, the degree to which it contributes to the end goal is rather small.

The Delphi study was initiated in order to find consensus on the most important working practices, but consensus is not reached after two rounds. This means that opinions are not aligned concerning the working practices that were defined as being important. The working practices that reached consensus differ from those that are actually the most important, by evaluating the scores given by the participants. Following Hsu & Sandford (2007b), this is not rare, because when every individual is well represented within the final iteration, a significant spread can still be visible. The participants were not forced to conform to the norm of others and the fact that they did not agree on the most important working practices by Delphi standards, shows a difference in perception of the importance of working practices. When consensus is not reached after the planned three iterations, additional iterations can be executed (Hsu & Sandford, 2007b). Therefore, more Delphi rounds would be advised in order to try to reach consensus. This is however out of scope for this research due to a time limitation.

The lack of consensus might also be explained by internal factors of this Delphi study. The first round showed a large amount of consensus, leading to the decision to use another method for the second questionnaire. Hereby, the focus deviated slightly from usual Delphi studies. In other situations, consensus is the one and only goal and in that case the outcomes of the first round would have been satisfying. However due to the secondary purpose of this Delphi study to find the most important working practices, the author had to deviate from regular Delphi methods to reach this goal. A third Delphi round, using the same method as round two, would diminish the effect on the deviating results. Although consensus was not reached, the research did find the most important working practices for the two project alliances under investigation.

6.2.5 Discussion round two: important working practices Markermeerdijken

For the MMKD, five out of the 11 working practices (when including both E3 and F4) have reached consensus on a score ≥ 11 : not even half of them (see Section 5.6.5). The fact that for the MMKD consensus does not equal being important either, implies that this does not only hold for the GRalliantie. Reasons for this could be similar as for the GRalliantie, as discussed in Section 6.2.4.

The rest of the working practices reached consensus on a score ≥ 11 within a segment of 45% or 55%. This means that a large amount of participants already agree on its importance, but not the required 60% yet as defined in Section 5.6.5. With the current response size, this means that only a shift of one or two participants would result in consensus, which would not be unrealistic to happen in a potential third Delphi round. Therefore, the conclusion holds that a third Delphi round would be advisable.

6.2.6 Discussion round two: comparison GRalliantie and Markermeerdijken

As seen in Section 5.6.6, there are some working practices of which their end scores largely deviate between the GRalliantie and MMKD. The overall differences are discussed after which a comparison is made between the top ten per project alliance.

H3 (stimulate transparent, open and frequent communication - transparency/openness) is the largest visible deviator. This working practice is scored as neutral by the GRalliantie and did not reach consensus for MMKD. This might be the result from the believe that open and frequent communication is already present and is not necessary to be stimulated anymore. However both alliances scored this working practice to be executed by consensus. This could imply two things. It could be that the working

practice was executed, but that they did not find it useful and therefore score it low or neutral. Or it could have been executed, and they found it useful at the time, but answer differently now because it is not necessary anymore at this stage in the project.

J6 (clear coordination from management – best-for-project), scored higher for the MMKD than for the GRalliantie, although none of them reached consensus on its (un)importance. Neither of them reached consensus on the execution, which could imply that even though the working practice was not executed, they did not miss it, because they do not score it to be important. MMKD is divided considering the importance of the working practice as well as considering the execution of it, which might mean that it is not executed amongst all layers of the alliance.

J10 (being positive – best-for-project) was scored higher by MMKD than by the GRalliantie. GRalliantie scored this working practice as neutral by consensus, where MMKD did not reach consensus but scored an average close to neutrality as well. Both their average scores close to neutrality, could imply that they are unsure if this working practice is required for the formation of collaborative identity. This working practice however did reach the top ten most important working practice for the MMKD, due to its relatively high score for the collaborative value.

What also stands out when looking at Figure 19, is that most deviators from the centre line, lean towards the y-axis, meaning that the MMKD overall scores higher than the GRalliantie. This is not in line with the way the collaborative values were scored, where the GRalliantie was the one scoring higher. This is probably the result of coincidence.

Comparison of the top ten per project alliance

When comparing the top ten for each project alliance, there are five working practices present in both of them, although in a different order. Two working practices are present within both top three's: E3 (invest time into each other – trust) and E5 (reflection and self-assessment – trust). The fact that they both belong to the value of trust is no surprise, since trust scored high for both project alliances. Apparently these working practices are seen as very important within both project alliances, which might imply that they could be important for other project alliances as well. E3 seems to be the most important working practice for collaborative identity formation, at least within these two alliances. Further research should reveal if this is the case for other alliances as well.

When determining the unimportant working practices, it became clear that many of those working practices were proposed by Hietajärvi & Aaltonen (2018). Since this reference was the only one linked to collaborative identity formation within project alliances, it is interesting to notice that within the top ten, the most important ones for both project alliances do not correspond with the proposed working practices by Hietajärvi & Aaltonen (2018) either. Only two working practices, C1 (daring to express concerns about the new way of working - honesty) and F2 (create a shared location for colleagues to work together on location – the shared feeling of “us”) from their research is present within the top ten of the GRalliantie. The same holds for the MMKD, where only two (F2 create a shared location for colleagues to work together on location – the shared feeling of “us” and F1 (schedule and maintain face-to-face interaction – the shared feeling of “us”) reached the top ten. There is a difference visible within the three project alliances, which might be relevant for further research. The possible influences that create this difference between the Finnish and Dutch research were already discussed in Section 6.2.2.

Although the top ten shows five similar working practices for both project alliances, the other five do not correspond and the order is not similar either. While the differences cannot be explained with certainty based on deviations between the project alliances, it is possible to state the similarities between them, which at least did not initiate the differences:

- They are executed within the same country, within the same culture;
- The type of projects are similar, namely dike reinforcement projects;
- The project alliances basically both follow the same alliance principles;
- The man to woman ratio within both participant groups are similar;
- Both project alliances are currently at the same stage of work;
- The composition of both participant groups are reasonably the same.

What might be a reason for this difference, is the fact that both project alliances consist of different parent organisations, which might have a different work ethic that influences the project alliance culture. It can also depend on the type of people involved within both project alliances, or on the experience that some participants might already have with project alliancing.

Besides external reasons for the differences, the research set-up could also lead to a difference within the results. Important therein is for example the composition of the participant groups from both project alliances, which are rather small. The participants might not be a reliable representation of the project alliances. In order to rule out this reason, the research could be executed with larger participant groups. Another way to define where the differences come from, would be to execute the research with multiple project alliances.

Based on the information above, it seems that the method for the formation of collaborative identity might not be generalizable, even though some similarities were present within the top ten. For these two project alliances, there is a difference within the most important working practices to form collaborative identity, which asks for a different approach for each of them.

Another point of discussion for further research is the potential difference between which working practices the project participants reckon to be important and which of them actually contribute to positive project outcomes. This does not always have to be the same and provides useful information for the management. However, this research does not provide the information to substantiate this assumption.

6.2.7 Discussion round two: comparison between expert groups GRalliantie

The largest differences between the scoring behaviour is visible between the alliance management and the alliance team leads (see Section 5.6.7). This may be a result of the different roles that they have to fulfil within the project and their different views and experiences within the alliance as a result of that. The alliance management is responsible for the delivery of the project and reports to the alliance board. The team leads are responsible for the day-to-day delivery of the project (Commonwealth of Australia, 2015) and are therefore involved within the project on a direct daily basis.

However, it must be noted that the alliance management in this case only consists of one person. This means that the average score for this working practice is based on his or her opinion only and could therefore provide unreliable results. The group of team leads consists of only three people and is therefore not large enough to base solid conclusions on. The comparison is made for the purpose of this research, but is not reliable nor generalizable and should be executed in follow-up research with larger expert groups.

6.2.8 Discussion round two: comparison between expert groups Markermeerdijken

Within the MMKD, the alliance staff deviates from the other four expert groups in seven out of ten working practices shown in Table 24 (see Section 5.6.8). As can be seen in the organisational chart for the MMKD in Appendix A.4, the staff is a slightly separate group within the project alliance. The staff contains the project secretary, quality, safety and management and transfer. It could be that the fact

that they belong to the project alliance in another, more indirect way, they would score certain working practices differently. However, when asking the staff if they feel part of the project alliance team, the answer was yes. The reason for this deviation can therefore not be determined with certainty within this research.

For the MMKD it must also be noted that the staff in this research consists of only one person. Besides the idea that it is the staff that deviates from the rest, it could also be this particular individual that deviates from others, that coincidentally belongs to the staff. In order to define this difference with more certainty, a larger scale research would be necessary, with larger expert groups.

6.3 Conclusion

All collaborative values within this research seem to contribute to collaborative identity. Trust and honesty were labelled as the most important collaborative values that contribute to collaborative identity formation. These two were both present within the top three most important ones, implying that different project alliances might benefit from these two collaborative values. The most important working practice for both project alliances was E3 invest time into each other, followed by E5 reflection and self-assessment, both belonging to the collaborative value of trust.

After round one, both project alliances seemed to agree on the importance of a large amount of the working practices. When they were forced to define the relative importance however, the differences between the two project alliances became visible. Both project alliances seem to require a different set of working practices in order to form a collaborative identity. Both project alliances did also show a difference in required working practices compared to the Finnish research on collaborative identity formation. Some of the activities proposed within the Finnish research, were labelled as unimportant by both project alliances within this research. This implies that different project alliances require a different combination of working practices in order to propagate the same collaborative values, that lead to forming a collaborative identity. The formation of a collaborative identity is thus strongly dependent on the project alliance. Which project alliance requires which combination of working practices should be determined by further research.

6.4 Contribution to science

As discussed in Section 4.3, literature suggested the need for more attention to the human aspects of collaboration in order to decrease poor project performance. Building a collaborative identity is one of the ways to improve collaboration within a project alliance, but there was a lack of information as to what was required in order to reach collaborative identity. Hietajärvi and Aaltonen (2018) performed research to which working practices (also called activities) contributed to collaborative identity formation within a Finnish project alliance. This research contributes to science in the sense that it extended their research. It attempted to fill the knowledge gap by identifying the required working practices as well as collaborative values required for collaborative identity formation, as well as by answering how this can be extended to other project alliances.

This research implies the new insight that different project alliances require a different combination of working practices and collaborative values to form a collaborative identity. Both project alliances under investigation seem to require different working practices, although the projects are relatable. Since the combinations differ per project alliance, more research is required in order to know which combinations result in collaborative identity formation within which project alliance.

6.5 Contribution to practice

The research demonstrated the need for a focus on the human aspects in order to collaborate successfully within a project alliance. The research contributes to project alliancing practice in a sense

that more information is available on how collaboration within a project alliance can be improved. The collaborative values and working practices that are required for collaborative identity formation were identified and could assist new project alliances by choosing relevant points of focus.

6.6 Limitations of the research

The previous discussion of the results was mostly based on internal factors that could explain the results and the way that was answered to the questions. However, the results might also be influenced by external factors, such as the way this research was designed. The limitations of the research methodology that could have affected the results, will be discussed next.

6.6.1 Focus on only two project alliances

The first limitation of this research was that the research only investigated two project alliances, due to the time limit and availability of participants. The decision was made to use more than one project alliance in order to find differences and similarities. However, due to the deviations between the two project alliances, no hard conclusions can be drawn based upon the results. The inclusion of more project alliances could have strengthened the outcome of the research.

6.6.2 Small group of participants

Another aspect that might have changed the outcomes of this research, is the small group of participants that participated. The initial group of 40 participants, decreased to 21 at the end of round two. Although this was still an acceptable amount of participants, following the research design that was based on literature, the group became rather small. From the total of 230 employees within the MMKD (see Appendix A.3), only about 5% participated within this research. This 5% could have determined the outcome in a different way than another 5% of this alliance would do. The type of participants, or possible even their personalities, could have changed the outcomes of this research, since the outcome is fully based on their opinion.

6.6.3 Small expert groups

At the start of this research, one of the goals was to make a distinction between the expert groups as well. Their different roles within the alliance could have led to different answers, which would have delivered useful information for the improvement of collaborative identity and for the implementation of working practices. This distinction was still made, although the expert groups became so small that the results became unreliable. The results were therefore shown for the purpose of this research and in order to show what kind of conclusions such distinction could lead to, but should have been executed with larger expert groups to become reliable.

6.6.4 Input based on literature

The goal of the Delphi study was to find what collaborative values and working practices could contribute to collaborative identity formation. Since there was no available information to start with, except for the Finnish research by Hietajärvi & Aaltonen (2018), a thorough literature review on the topics of project alliancing, collaborative identity formation and collaboration within construction projects formed the basis for the Delphi study. By doing so, the author determined a great amount of the input for the Delphi study. These effects were tried to be decreased by the use of the scoping round and providing the participants with the ability to add any working practice to the list. However, due to the time limit of this research, and therefore the use of only two experts for the scoping round, as well as the nature of a Delphi study without asking the participants for more elaboration on their answers, these effects might not have been eliminated fully.

6.6.5 Use of Delphi method

The author chose the use of a Delphi method for this research because of the limited information that was available at the start. Delphi studies are sometimes criticized due to their varying nature: they can be made fit to purpose for any kind of research. This criticism was countered by thoroughly describing every decision that was made, in order to improve reproducibility.

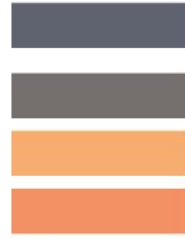
However, the choices that were made during the preparation of this Delphi study did affect the outcomes. A Delphi study usually is a quantitative study, providing statistical information about the level of consensus between the participants. This quantitative way of researching, did not provide the opportunity for the participants to elaborate on their answers. Possibly relevant information, such as personal circumstances that influenced an answer, did not become visible.

6.6.6 Translation to Dutch

In order to limit possible language barriers during the Delphi study, the collaborative values as well as the working practices were all translated to Dutch. This eliminated a language barrier, but did introduce a possible translation bias. The way the values and working practices were translated, could have affected the interpretation of the participants. This was mitigated by adding a review of the conceptual list by an independent individual from the target group.

PART

3



A PLAN OF ACTION FOR BUILDING AND IMPROVING COLLABORATIVE IDENTITY

This part combines the results of the previous parts, by proposing a plan of action to improve collaborative identity within the GRalliantie and Markermeerdijken, and to build collaborative identity for new project alliances.



7 IMPROVING COLLABORATIVE IDENTITY

This chapter discusses a proposal for both the GRalliantie and the MMKD in order to improve collaborative identity formation. The advice for the GRalliantie is given in Section 7.1, followed by the advice for the MMKD in Section 7.2. Section 7.3 elaborates on an advice for new project alliances.

The focus here is on improving collaborative identity due to the fact that both project alliances are already ongoing and are not within the development phase anymore, which usually is the phase to start forming collaborative identity. Therefore, an advice is given, based upon the data from the Delphi research, as to which working practices should be considered if they desire to improve collaborative identity. The proposal focuses on important working practices that did not reach consensus on execution during this research, because they form relevant and effective points of attention. The need for implementation of the working practice is first explained by literature, followed by a general advice on how to implement it.

7.1 Proposal GRalliantie

The participants from the GRalliantie all stated to feel part of the alliance at this moment in time (see Appendix C.7). The data from the research substantiates this: from the ten most important working practices for the GRalliantie, eight of them have been executed during the development phase of their project. However for two of them, J2 (clear definition of roles and responsibilities (specifically not as part of contract – best-for-project) and J12 (cogitate the next phases of the project early/earlier – best-for-project), consensus is not reached about execution (only 40% scored ≥ 3). The data on execution for these two working practices is rather divided (see Appendix C.3). If the GRalliantie desires to improve their collaborative identity formation, it is most sensible to pay attention first to these two working practices which were not experienced as executed by more than 60% of the participants. Therefore, these two working practices will be elaborated further. Both working practices belong to the collaborative value best-for-project. The two working practices are advised to implement as additional points of attention, complementing the working practices that are already being executed. It is important not to reduce the attention to any other working practice and therefore this advice should only be put to use if available resources allow this.

7.1.1 First point of focus GRalliantie

J2 Clear definition of roles and responsibilities (specifically not as part of contract) – best-for-project

This working practice refers to the definition of roles and responsibilities, which should be clearly be identified and understood when multiple parties are involved (Commonwealth of Australia, 2015), such as in an alliance. However, instead of referring to the roles and responsibilities within the contract (as in working practice J1: clear definition of roles and responsibilities (specifically as part of contract – best-for-project), this working practice states that this definition should specifically not be a part of the contract. No consensus was reached about the execution of J1 either (only 40% of the respondents scored ≥ 3 , see Appendix C.3). As mentioned, the expert groups however are divided considering the execution of J2: where the board and management are convinced of execution of this working practice (all scoring a five), the other expert groups score lower. The team leads are divided between a score of two and three, meaning they do not agree or scored neutral, and the team members are divided between a score of one and four. Thus the board and managers might think this is done, although their subordinates are divided. This might imply that the working practice is not been coordinated well to the other layers of the organisation, or that they might not agree with the way it is done.

However, when looking at the difference in importance between both, we see a larger difference. J2 is seen as much more important, with an average score of 16,2 and consensus ≥ 11 of 90%, and ≥ 15 of 70%. J1 scored an average of 12,2 and did not reach consensus on any score above the median (see

appendix C.6). This shows a clear preference for the definition of roles and responsibilities without using the contract.

This is in line with what Expert A mentioned during the scoping round interview, as elaborated on in Section 5.1. He stated that within collaboration, it should all be about the people involved, instead of about the contract. A clear definition of roles and responsibilities is required, but does not have to be specifically defined in the contract. Suprpto, Bakker, Mooi, et al. (2015) substantiate this by stating that a contract is required to make the business succeed, but not an effective method to manage the working relationship. They do however state that a contract can play a relevant role in structuring the responsibilities of all parties involved. Following Expert A (Appendix B.3), the need for the contract during a collaboration means you already entered a slippery slope.

One of the basic project alliance principles is good faith (Chao-Duivis, 2018; Commonwealth of Australia, 2015; Hietajärvi, 2017; Hietajärvi & Aaltonen, 2018), which is a feature closely related to this working practice. If good faith is not present, this working practice adds no value. As discussed in Section 4.3, new relational norms should be developed when entering into a new form of collaboration (Suprpto, Bakker, Mooi, et al., 2015), of which discussing mutual trust and commitment is an important aspect. The definition of roles and responsibilities should be discussed during this point in time as well, where the first steps into collaboration and new relational attitudes are taken. If no attention is paid to the new relational attitudes, this working practice will not suffice.

Therefore, the proposed advice for the GRalliantie management is to make everybody aware of the need to focus on the relational attitude and to specifically plan time to discuss this among the organisation. The new roles and responsibilities should be openly discussed in an informal way, with participants from all layers of the organisation of the project alliance involved, so that all expert groups are on the same page. It is required to include boundaries and hierarchies into this discussion, to guide task and responsibility allocation (Suprpto, Bakker, Mooi, et al., 2015).

When it comes to aligning participant objectives to the mutual project goal, the Commonwealth of Australia (2015) proposes the use of an Alliance Charter (AC). This presents the basic behavioural principles that drive the decision-making processes within the alliance. They propose this AC to be part of the alliance contract, which contradicts with the found data in this research. However, it could also serve as a guideline as to which aspects need to be discussed among the participants of the GRalliantie in order to define the new roles and responsibilities. It may guide the discussion as to which commitments, and thereby belonging tasks and responsibilities, need to be discussed and which behaviour matches those commitments. A template of this charter as defined by the Commonwealth of Australia could be used as a guideline, which could then be formalized with all participants for that alliance specifically.

A last proposal considers the implementation of the agreed roles and responsibilities. When deciding on responsibilities and roles, it is important that the measures align to the desired behaviour. If individuals are required to take responsibility within a certain situation, the top-management should

The advice

Roles and responsibilities should be openly discussed among the organisation, even though they might have already formed naturally. The key here is that the focus of the roles and responsibilities should not lie on the contract, but on good faith. When something is unclear or irregularities occur, the contract should not be brought to the table, but the problem should be managed with open communication. This asks for motivation from all layers of the organisation. The AC could be used as a guideline to implement this new way of defining roles and responsibilities.

support this behaviour at all times (Commonwealth of Australia, 2015). Since the GRalliantie already entered the execution phase, all roles and responsibilities most probably have formed naturally already, but based on the results of this research, it still needs attention.

7.1.2 Second point of focus GRalliantie

J12 Cogitate and plan the next phases early/earlier – best-for-project

This working practice is all about being aware of what needs to happen next, and planning out the next phases earlier. It has to do with planning, which is a relevant aspect of good project management (Commonwealth of Australia, 2015). The GRalliantie scored this working practice with an average of 13,8 and consensus of a score ≥ 15 with 60%. This means that 60% of the participants believe this is a very important aspect, which has not reached consensus on execution. The scores deviate across the whole alliance and also within expert groups, between one and five. The management once again scores this working practice to be certainly executed (with a score of five, although this is only one person). The board scores it as neutral, which could imply they are not sure about its execution or with the way it was executed.

Normally this working practice should be mainly focused on during the planning and development phase of the alliance, the phase where collaborative skills are trained (Hietajärvi, 2017). Although the GRalliantie seems to have spent a substantial amount of time on these phases, the alliance seems to be divided on the effect this has had. This means that there is no clarity on the execution of this working practice, it might indicate different expectations within the organisation or expose a lack of communication concerning this topic.

Involving all parties during the planning phase is one of the major benefits of a project alliance (Ross, 2003) so therefore it is important to keep in mind that all parties should be involved when doing this. It seems that the participants of the GRalliantie do not experience this benefit of project alliancing to be fully used, since they do not agree on the execution of this working practice. Focusing on this aspect would result in a better collaborative identity, as well as improving the planning.

Adversarial behaviours of individuals within the project alliance can lead to poor planning, which should be reflected upon during the alliance project (Commonwealth of Australia, 2015). The focus on good planning contributes to best-for-project, which is a value contributing to collaborative identity formation. A better collaborative identity makes for less adversarial behaviour within the group. Focusing on the planning could therefore be a constant circle of benefits when it comes to identity formation.

The advice

The first step would be to align expectations around the planning of the phases that are yet to come. The second step then would be to act upon those expectations by cogitating and planning the next phases earlier on. Each step or decision should be clearly communicated throughout the entire organisation, in order to align all layers of the organisation. The use of planning techniques could help to improve the implementation of the project (Suprpto, 2016).

7.2 Proposal Markermeerdijken

Most participants within this research from the MMKD stated that they feel part of the project alliance at this point in time. Two participants, one team lead and one team member, stated to feel part of the alliance only a little bit. It might therefore be relevant to improve their collaborative identity formation amongst all participants of the alliance. When looking at the most important working practices for the

MMKD, they agree by consensus that eight out of the top ten are executed during the development phase. Only two of them did not reach consensus on execution, meaning these two would be the first and most sensible points of attention for the MMKD: E5 (reflection and self-assessment – trust, rates as executed by 29% of the respondents and J6 (clear coordination from management – best-for-project, rates as being executed by 50% of respondents). These two working practices will now be discussed and converted into an advice for the MMKD. Similar as for the GRalliantie, these working practices are advised to be implemented complementary to the working practices that are already being executed.

7.2.1 First point of focus Markermeerdijken

E5 Reflection and self-assessment

With an average score of 12,3 the working practice did not score as very important, however it contributes to the value of trust, which increases the total score as seen in Section 5.6.3. Therefore, it is advised to give attention to this working practice in case MMKD wishes to improve their collaborative identity. No consensus is reached on its execution, due to the divided scores amongst the expert groups, between two and four (See Appendix C.3). The board and management scored this working practice between two and three, towards the lower side, meaning they did not agree or were neutral about the execution. Some of the team leads and team members however scored it with a four, meaning it was actually executed. This division leads towards the assumption that it was not clearly executed or at least not across the whole organisation. Therefore, it is important to include everyone when implementing this working practice.

Reflection and self-assessment, belonging to the collaborative value of trust, deals with analysis of behaviour and results. It treats the understanding of the team concerning the different roles and responsibilities (Suprpto, 2016). It is a common element of teamworking and following Baiden & Price (2011) it is a measure for teamwork effectiveness, that should be executed periodically. They state that when reflection and self-assessment is fully carried out, the organisation should regularly review all roles and the impact they have on the team, after which one should act upon the outcome.

The advice

The MMKD should plan a periodic moment with all alliance members for reflection and self-assessment. This can for example be done using well known methods such as "360 degree feedback", which is a method to assess the work of employees from different angles in order to create an extensive view (Hendriks, 2020), but may also be done by another assessment method that the organisation prefers.

All members should thereby be made aware of the benefits reflection and self-assessment brings to the whole team. Despite the effort, it increases team effectiveness, meaning that time is well invested. Being more aware of the roles and impacts of each participant and the believe that one will act on these, increases trust within the alliance organisation, which also contributes to collaborative identity formation as discussed in Section 4.4.1.

7.2.2 Second point of focus Markermeerdijken

J6 Clear coordination from management

MMKD did not reach consensus on the importance of this working practice, since scores divide between five and 20, also among the different expert groups (see Appendix C.6). Consensus is neither reached on the execution: scores divide between two and five (see Appendix C.3). The board scored neutral on its execution, but the management, the topic of this working practice, was rather divided.

This implies unclarity considering the execution of this working practice from both the people that should execute it and the people that should be coordinated.

The working practice of clear coordination from management belongs to the working practice best-for-project. Coordination refers to the process of aligning and integrating all activities within the project in sequence and time, towards a common goal, which is the main task of the management (Lavikka et al., 2015). They state that the management should preferably be a combination of representatives from the different parties, as the coordination responsibility cannot lie with one single company. This is the case within the MMKD, meaning this is not the reason for a lack of clear coordination.

The quality of coordination is measured by the shared perception of the goals and the level of synchronization of all activities within the organisation (Suprpto, 2016). Following Lavikka, Smeds, and Jaatinen (2015), a lack of coordination is a returning reason of poor performance within the construction industry, since it is crucial for organisational performance.

Coordination is especially one of the main issues when it comes to inter-firm projects, of which a project alliance is an example. When multiple firms are involved, coordination is usually not efficient and takes a long time, because it passes all parties (Suprpto, 2016). When this fragmentation is eliminated, the parties more effectively align to the common goal. Since alignment with the common goal is part of the collaborative identity formation, these are strongly intertwined.

Following the Commonwealth of Australia (2015) alliance teams are effective when they have a strong culture and are led from the top. This partly works as leadership by example, where the management exhibits the expected behaviour from all participants. This means that the management should not only coordinate its subordinates, but also act in line with these behavioural expectations himself. Besides fundamentally coordinating the alliance, the manner of coordinating should be clear to each individual, following the transparency principle of an alliance, because openness leads to a willingness to cooperate (Rahman et al., 2014).

A contract can be used as means of coordination, but does on itself not suffice when multi-party projects are complex and uncertain. The contract may specify organisational mechanisms for information sharing, but these do not coordinate the collaborative work effectively if they are not implemented afterwards (Lavikka et al., 2015). Information technology systems or building information modelling may support coordination, but is not sufficient within multi-party contracting. Therefore, Lavikka et al. (2015) state that co-location of involved project parties, cooperatively defining the common goals and using lean construction are elements of clear coordination of multi-party projects.

The advice

The advice for the MMKD is to ensure the ability of clear coordination from the management. It is not only the responsibility of the management, because the subordinates should also enable the management to coordinate them. The MMKD did not reach consensus on the execution of this working practice, meaning that the aligning of all activities in sequence and time is not clear to each participant. This should receive more attention, by aligning all expectations considering the coordination within the alliance, in order to work more effectively as one team with one mutual goal. The advice thereby is to combine some of the methods described above: co-location of the parties, cooperatively define common goals, use lean construction and use information technology systems or building information modelling across the alliance organisation.

7.3 Proposal new project alliances

The goal of this research was to identify the most important working practices and collaborative values to form a collaborative identity within project alliances in order to improve collaboration. The proposed list of collaborative values and working practices was tested among two alliances in order to determine the most important ones for each alliance. This turned out to be different per project alliance, meaning this would most probably differ for other alliances as well.

In order to guide new project alliances with improving collaboration through collaborative identity formation, this section proposes a six-step guideline to follow, which should be further elaborated and implemented by the alliances themselves. The greatest benefits will be achieved when investing herein from the development phase onward.

Step 1: Define desired identity in line with alliance goals

Adjusting to a new identity takes time and in order to manage this transition, it is advised to firstly determine how different the new identity is compared to the identities of the parent organisations (Commonwealth of Australia, 2015) and to determine how this can be achieved in line with the alliance goals. What identity and working culture is required to achieve the common alliance goals?

Step 2: Determine important collaborative values

The working practices to be executed contribute to collaborative values, which form the basis to construct collaborative identity. Therefore, the advice is to start with identifying which of the collaborative values are most important for their alliance, by placing them into an order. This can be based on the alliance contract, but also on alliance participant input. Ten relevant collaborative values are identified within this research: equality, tolerance, honesty, group solidarity, trust, the shared feeling of “us”, (shared) commitment, transparency/openness, consensus/unanimity and best-for-project, see Section 4.4.1. Depending on the available time and financial resources, a number of these values may be chosen as a starting point. The order of importance may differ per project alliance, but if an advice must be given based on this research, the new project alliance should start with either one of these top five values: honesty, trust, (shared) commitment, transparency/openness and best-for-project. These values were both scored within the top five of the participating alliances within this research, so may give direction to new alliances. Trust and honesty came out best of this research, both in the top three.

Step 3: Determine maturity of collaborative values

In order to know how and where to start building collaborative identity by a focus on these values, the alliance must determine how mature they already propagate these values. This can be done by means of a maturity model that measures the maturity of all values.

A maturity model indicates the desired or current organisational capabilities and can be used to define and prioritize measures of improvement as well as to monitor progress (Pöppelbuß & Röglinger, 2011). The model therefore has to be linked to the vision of the organisation (Rosenstock et al., 2000). A maturity model however does not ensure improvement, but only a measurement tool for a specific moment in time and provides help in making an improvement plan for the organisation (Rosenstock et al., 2000). The maturity model that fits this purpose best, is a descriptive maturity model, where current capabilities are assessed based on a set of criteria (Pöppelbuß & Röglinger, 2011).

A maturity model should be based on basic information, as well as the purpose of use, the target group and the subject under investigation (Pöppelbuß & Röglinger, 2011) making each maturity model unique. The required focus on context of the organisation means that each organisation requires a different maturity model, so that providing an example is irrelevant. A managerial practice that works at one place, does not necessarily reach the same result in another surrounding (Lamsa & Pucetaite,

2006). Therefore the advice for any new project alliance is to create a maturity model based on the collaborative values that matches their context and goals.

Step 4: Determine working practice to focus on

When knowing the maturity of the collaborative value that the project alliance desires to work on, one can start to work on increasing its maturity and thereby contributing to collaborative identity formation. Implementing the working practices is a way to increase the maturity. The working practices that were identified within this research, can be found in Section 5.1.2.

Not all working practices equally contribute to a collaborative value. Considering the fact that construction projects always face time and budget constraints, choices have to be made as to which ones are worth investing in. Due to the deviating results for both projects under investigation in this research, no advice can be given as to which working practices may be most important for each collaborative value. This should therefore be determined by the alliance.

Step 5: Implement working practices

If one knows which working practices are worth investing in, in order to reach the most effective and efficient results, one should implement those working practices across the organisation.

Step 6: Keep track of collaborative identity

In order to keep improving and building collaborative identity, one should use the maturity model at periodic times during the project to measure its maturity. This provides information considering the effect of the choices that were made and if new working practices or the focus on a new collaborative value may be required.

8 CONCLUSION

The aim of this research was to identify important collaborative values and working practices that contribute to collaborative identity formation within project alliances. The five sub-questions that were defined in order to answer the main research question, will be discussed first, after which the answer to the main research question will be formulated.

The first two sub-questions were based on creating a context for the research and elaborating on the topics of client-contractor collaboration, project alliancing and collaborative identity.

SQ1 What defines client-contractor collaboration within a project alliance?

The project alliance is an integrated project delivery method, which emerged as a reaction to the poor overall project performance in the construction industry. A project alliance is a multiparty contracting arrangement where two or more parties work together towards a common goal as an integrated entity. Collaboration is essential within a project alliance, because different parties with a different background and a different expertise are required to work together based on good faith, trust and a shared risk and reward system.

The client-contractor collaboration that evolves should be about building a durable relationship, by creating new procedures and routines, working with a common goal and by means of a shared planning. Client-contractor collaboration was defined as a behavioural interaction between the parties, working together towards the same common goals by means of shared values and norms. Client-contractor collaboration was further elaborated by using the six categories that were defined by Suprpto, Bakker, Mooi, et al. (2015): team working, relational attitude, capability, team integration, joint working and contract.

Even though the benefits of collaborating within a project alliance are widely acknowledged by literature as well as in practice, there still is a lack of attention towards the underlying processes of collaboration. Focusing on the formation of a collaborative identity is one of those aspects that deserve more attention in order to improve collaboration within project alliances. This was elaborated on by identifying what a collaborative identity within a project alliance constitutes.

SQ2 What constitutes collaborative identity within a project alliance?

Collaboration within project alliances requires strong integration of the project team as well as a collaborative working environment. This sense of belonging and integration of the different parties that have never worked together before, is also called a collaborative identity. For the purpose of this research, the definition by Hietajärvi and Aaltonen (2018) was adopted: they define collaborative identity as the collaborative values and working practices that shape an organisation's image and which distinguishes them from others. Collaborative values guide behaviour, reduce uncertainty and determine which types of behaviour or situations are desirable within the organisation. Working practices determine how the work is usually done in an organisation and contribute to the collaborative values. Forming a collaborative identity is essential for successful collaboration within a project alliance, because parties that have never worked before are suddenly forced to collaborate. Individuals identify with the culture of the mother organisation they work for, representing different norms and values. When a collaborative identity is formed, the members of the alliance are more willing to overcome their different perspectives, values or biases, resulting in a more strongly integrated team.

The collaborative values required to form a collaborative identity were unknown, and therefore this research attempted to fill this knowledge gap by identifying relevant collaborative values.

SQ3 Which collaborative values are required to form collaborative identity within the alliance organisation?

This research substantiated that collaboration within project alliances can be improved by a focus on forming a collaborative identity. By a focus on the collaborative values that contribute to collaborative identity, the parties temporarily release the identity of their mother organisations, and create a common culture for the duration of the project alliance. The following collaborative values were found during the literature review of this research:

- Equality
- Tolerance
- Honesty
- Group solidarity
- Trust
- The shared feeling of “us”
- (shared) commitment
- Transparency/openness
- Consensus/unanimity
- Best-for-project

Based on the executed Delphi study, all of the collaborative values above contribute to collaborative identity formation within project alliances. The values of trust, honesty, (shared) commitment, transparency/openness and best-for-project were indicated as the five most important ones for both the GRalliantie and the MMKD. Trust, as important for any kind of collaboration, was indicated the most important, together with honesty, as they were both present within the top three of both project alliances. Further research will have to indicate if these five most important ones are generally applicable for other project alliances, since the extrapolation cannot be based on this limited dataset.

In order to know how these collaborative values can be achieved, the working practices were defined.

SQ4 Which organisational working practices are required to form collaborative identity within the alliance organisation?

A conceptual list of possibly relevant working practices was created based on a literature review on the topic of collaboration, existing of 57 working practices, which was adjusted according to two scoping round interviews with experts. Based on the outcomes of the Delphi study, seven working practices were identified as being unimportant for the formation of collaborative identity, by being scored unimportant for both project alliances.

The project alliances under investigation in the Delphi study were chosen to be as similar as possible, however, the results of the research show deviations within the most important working practices for both alliances. This research therefore implies that the formation of collaborative identity is a different process for different project alliances and that the working practices are not all considered equally important between projects. The formation of collaborative identity requires a different combination of collaborative values and working practices for different project alliances.

Three working practices were found to be present in the top five most important ones of both project alliances: E3 (invest time into each other – trust), E5 (reflection and self-assessment – trust) and C2 (align goals and identify joint goals – honesty). These three seem to be important for both project alliances and might therefore indicate to be important regardless which project alliance. Especially E3 seems to be important, because this working practice reached a first place on importance for both project alliances.

Interestingly, the results of this research deviate significantly from a Finnish research into collaborative identity formation, by Hietajärvi & Aaltonen (2018), as some of their important working practices were defined as unimportant within this research. It is suggested that this might be triggered by a cultural

difference, the differences of experience of the parties involved within the alliances or the differences within the research methods, but no final conclusion can be made on this matter.

Although the goal was to find the most important working practices and aim for consensus on those, it turned out that the most important working practices as defined within this research are not the same as the ones that reached consensus. Consensus in this case does not imply importance, and vice versa. Usually when consensus is not reached, another Delphi round is added to the research, although this was no option for this research due to time constraints. The assumption is that consensus might be increased by adding another Delphi round.

SQ5 In what way can this be interpreted and implemented by an alliance organisation that aims to form collaborative identity?

Both project alliances under investigation were already in their execution phase. Building a new collaborative identity therefore was not necessary and therefore an advice was given on how to improve their collaborative identity formation. There were two working practices for each project alliance within their top ten that did not reach consensus on execution, which..

The advice for the GRalliantie was to focus on J2 (clear definition of roles and responsibilities (specifically not as part of contract) – best-for-project) and J12 (cogitate and plan the next phases early/earlier – best-for-project). For the MMKD, these were E5 (reflection and self-assessment – trust) and J6 (clear coordination from management – best-for-project).

Both projects under investigation deviated from each other, so that no general conclusion could be made on the most important working practices for new project alliances. Therefore, a six-step guideline is proposed to new project alliances that desire to improve their collaboration by building a collaborative identity, which can be complemented with the results of this research:

- Step 1: define desired culture/identity in line with alliance goals
- Step 2: determine important collaborative values
- Step 3: determine maturity of collaborative values
- Step 4: determine working practice to focus on
- Step 5: implement working practices
- Step 6: keep track of collaborative identity

The answered sub-questions above lead to the answer of the main research question:

How can collaboration within a project alliance be improved through a focus on the formation of collaborative identity?

Collaborative identity within project alliances deals with the formation of a new integrated identity of multiple parties that were not used to working together. By forming a collaborative identity, the identity of the mother organisations is released and individuals are more willing to overcome different perspectives, values or biases, by forming an integrated team with mutual norms and values. This contributes to overcoming the reoccurring poor project performance within the construction industry by stronger collaborative relationships. Striving for the ten collaborative values defined within this research, by execution of the proposed working practices, results in the formation of a collaborative identity and therefore in better collaboration within project alliances.

9 RECOMMENDATIONS FOR FURTHER RESEARCH

This research provided collaborative values and working practices that, in different compositions for different project alliances, contribute to collaborative identity formation. The two project alliances under investigation showed differences between their most important collaborative values and working practices, so in order to provide more insight into the required combinations of collaborative values and working practices to improve collaboration within new project alliances, more research is necessary.

Therefore, the following is recommended for further research:

- The main recommendation for future research is that a similar research should be executed with a larger sample size. This research showed that collaborative identity formation might require different combinations of collaborative values and working practices for different project alliances, but is only based on the input of two different project alliances. In order to confirm – or object – this finding, research has to be done with a larger amount of project alliances involved, as well as a larger sample size in terms of participants and expert groups. This research assessed the different expert groups to show how it could be done and what results it may deliver, but was not reliable due to the small sample size of each expert group. The differences or similarities between the expert groups however can shed a light on the way the working practices should be implemented and are experienced throughout the project alliances.
- Due to the differences found between the Dutch and the Finnish research, it would be advised to execute further research with a set of project alliances from different institutional contexts, or perform the same research within different countries. The results can then be compared to each other in order to elaborate on the cultural differences within project alliances.
- This research based its results on the opinion of experts from the field, just like a Delphi method is supposed to. However, there might be a difference between what experts perceive to be important and what actually contributes to project performance. Another level of depth might be added to the research by looking into which working practices do actually contribute to collaborative identity formation, by assessing project alliances during this stage of their project.
- The results of this research are based on what was extracted from literature and used as a starting point for this research. Some additions and changes were made, based on the scoping round and the input of the experts involved in the Delphi study, but this was rather limited. Involving more working practices from practice within the starting point of the research, might have presented a broader idea of the working practices required for collaborative identity formation. A broader vision could also be created by including a larger range of available literature on the topic of collaboration.
- Following one of the experts from the scoping round, individuals within the team determine the level of collaboration. Therefore, further research into this topic could also include personal characteristics of team members, in order to determine if these affect collaborative identity formation in any way.

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10.1 IMAGE REFERENCES

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PART

4

APPENDICES

This part includes all appendices:
A: Context of the research
B: Scoping round
C: Delphi study



A CONTEXT OF THE RESEARCH

A.1: Explanation of chosen literature

Table 28 below shows the sources that the list of working practices and collaborative values is based on and explains why these sources have been chosen.

Table 28 sources used to create the list of working practices

Source	Title	Importance of inclusion
(Davis & Love, 2011)	Alliance contracting: Adding value through relationship development	The focus on specifically alliance contracts and the development of relationships, which the formation of collaborative identity is a part of.
(Greer, 2017)	Elements of effective inter-organisational collaboration: A mixed methods study	Treats elements that contribute to effective inter-organisational collaboration; alliance contracting also deals with inter-organisational collaboration.
(Hietajärvi & Aaltonen, 2018)	The formation of a collaborative project identity in an infrastructure alliance project	This is a similar study on the same topic, however then focused on alliance projects in Finland and focusing on activities that contribute to the formation of collaborative identity.
(Lee, 2004)	The role of competence-based trust and organisational identification in continuous improvement	Discusses how organisational identity influences improvement, which is closely related to collaborative identity.
(Puusa & Tolvanen, 2006)	Organisational identity and trust	Treats the concept of organisational identity, which is closely related to collaborative identity
(Rahman et al., 2014)	The importance of collaboration in the construction industry from contractors' perspectives	Discusses the importance of collaboration from the point of view of contractors and thereby also discusses which aspects are seen as important to create a willing cooperative mindset, which is also needed to build collaborative identity.
(Suprpto, 2016)	Collaborative contracting in projects	Discusses aspects of collaborative contracting within projects, that contribute to successful collaboration.
(Suprpto, Bakker, & Mooi, 2015)	Relational factors in owner-contractor collaboration: The mediating role of teamworking	Discusses owner-contractor collaboration specifically with a focus on teamworking, which is expected to be an important aspect of collaborative identity.
(Suprpto, Bakker, Mooi, et al., 2015)	Sorting out the essence of owner-contractor collaboration in capital project delivery	Discusses the essence of owner-contractor collaboration specifically, the type of collaboration also present within a project alliance.

A.2: First version list of working practices

Table 29 shows the first version of the list of working practices and their corresponding collaborative values that is extracted from literature. This list is used as input for the Delphi study.

Table 29 First version of list of working practices

Value	Working practice	Importance	Source
Equality			
	Create interdependence	Stimulates relational attitudes	(Suprpto, 2016)
	Create mutual understanding	Builds a close relationship	(Rahman et al., 2014)
Tolerance			
	Prevent disputes	Helps to build a close relationship	(Rahman et al., 2014)
	Create a no-blame culture	Stimulates relational attitudes	(Suprpto, 2016)
Honesty			
	Expressing concerns about the new way of working	New norms, factors and routines have to be co-developed, and everyone has to feel comfortable about them	(Hietajärvi & Aaltonen, 2018)
	Align goals	Stimulates team integration	(Suprpto, 2016)
	Create a no-blame culture	Stimulates relational attitudes	(Suprpto, 2016)
Group solidarity			
	Create a shared vision	Common element of teamworking, Stimulates team integration	(Suprpto, 2016; Suprpto, Bakker, Mooi, et al., 2015)
	Involving all the parties in establishing project vision and goals	Helps to articulate a joint vision	(Hietajärvi & Aaltonen, 2018)
	Create mutual understanding	Builds a close relationship	(Rahman et al., 2014)
	Engaging collaborators for the project	The collaborator ensures collaborative mentality	(Hietajärvi & Aaltonen, 2018)
	Create mutual support amongst team members	Stimulates teamworking	(Suprpto, 2016)
	Create common attitude towards problem solving	Important aspect to guarantee teamworking	(Suprpto, Bakker, Mooi, et al., 2015)
	Define/Identify joint goals	Lays a ground for building collaborative identity	(Hietajärvi & Aaltonen, 2018)
		Element of successful collaboration	(Greer, 2017)
	Converge on mutual conceptions of project alliancing / Searching for knowledge or alliance principles and philosophy ("who we are becoming")	Lays a ground for building collaborative identity	(Hietajärvi & Aaltonen, 2018)
Shared feeling of "us" / cohesiveness			
	Schedule and maintain face-to-face interaction	Helps co-workers to identify themselves as part of the project	(Hietajärvi & Aaltonen, 2018)
	Create a shared location	Helps co-workers to work more effectively and feel part of the project	(Hietajärvi & Aaltonen, 2018)
	Design ways of working with multiple identities, such as workshops instead of traditional meetings	Encourages everyone to participate, feel part of the project and think out of the box	(Hietajärvi & Aaltonen, 2018)
	Invest time into each other	Element of successful collaboration	(Greer, 2017)
	Enacting informal practices to reinforce the shared feeling of "us"	Shared feeling of "us" lays ground for collaborative identity formation	(Hietajärvi & Aaltonen, 2018)
	Enacting formal practices to reinforce the shared feeling of "us"	Shared feeling of "us" lays ground for collaborative identity formation	(Hietajärvi & Aaltonen, 2018)
	Creating joint external signs and a visual symbol	Creates a shared feeling of "us", as basis for collaborative identity formation	(Hietajärvi & Aaltonen, 2018)
	Being different from traditional infrastructure projects	Creates a shared feeling of "us" as basis for collaborative identity formation	(Hietajärvi & Aaltonen, 2018)
	Identifying similarities (with other project alliances) from international examples	Creates a shared feeling of "us" as basis for collaborative identity formation	(Hietajärvi & Aaltonen, 2018)

	Converging on mutual conceptions of project alliancing as a team/ Searching for knowledge or alliance principles and philosophy (“who we are becoming”)	Lays a ground for building collaborative identity	(Hietajärvi & Aaltonen, 2018)
(Shared) commitment			
	Involving all the parties in establishing project vision and goals	Helps to articulate a joint vision	(Hietajärvi & Aaltonen, 2018)
	Focus on joint effort for improvement	Stimulates joint working	(Suprpto, Bakker, Mooi, et al., 2015)
	Ensure top-management commitment	Has been identified as a critical success factor for a collaborative relationship	(Suprpto, Bakker, Mooi, et al., 2015)
	Long-term orientation	Critical success factor for collaborative relationship	(Suprpto, Bakker, Mooi, et al., 2015)
	Co-create routines	Stimulates relational attitudes	(Suprpto, 2016)
	Define/identify joint goals	Lays a ground for building collaborative identity	(Hietajärvi & Aaltonen, 2018)
		Element of successful collaboration	(Greer, 2017)
	Create shared vision	Stimulates team integration	(Suprpto, 2016)
	Align goals	Stimulates team integration	(Suprpto, 2016)
Trust			
	Design reward and control systems	Important aspect to generate and control trust within an organisation	(Puusa & Tolvanen, 2006)
	Setting out procedures as policy and guidance for identifying attributes of trust and trust building behaviours	Increasing levels of trust and commitment; it tests the ability of the participants to collaborate and it builds relationships	(Davis & Love, 2011)
	Invest time into each other	Element of successful collaboration	(Greer, 2017)
	Ensuring that regulatory demands are met	Makes sure that the project alliance is feasible in the long run	(Hietajärvi & Aaltonen, 2018)
	Stimulate relationship-preserving behaviour	Stimulates teamworking	(Suprpto, 2016)
	Reflection and self-assessment	Important aspect to guarantee teamworking	(Suprpto, Bakker, Mooi, et al., 2015)
Transparency / openness			
	Information/resource sharing	Required for teamworking Generates trust and a willing cooperation Element of successful collaboration Leads to a willingness to collaborate	(Suprpto et al., 2015) (Lee, 2004) (Greer, 2017) (Rahman et al., 2014)
	Knowledge sharing	Required for teamworking	(Suprpto, Bakker, Mooi, et al., 2015)
	Stimulate transparent and open and frequent communication	Generates trust and a willing cooperation Stimulates relational attitudes Element of successful collaboration	(Lee, 2004) (Suprpto, 2016) (Greer, 2017)
Consensus / unanimity			
	Joint risk-management	Stimulates joint working Element of successful collaboration	(Suprpto, Bakker, Mooi, et al., 2015) (Greer, 2017)
	Joint decision making	Stimulates joint working	(Suprpto, Bakker, Mooi, et al., 2015)
	Joint problem solving	Stimulates joint working	(Suprpto, 2016)
	Setting initial boundaries and identity claims for the project	Serves as a remedy for continuous confrontations in projects	(Hietajärvi & Aaltonen, 2018)
	Make decisions together	Important aspect of teamworking	(Suprpto, Bakker, Mooi, et al., 2015)
	Create common attitude towards problem solving	Important aspect to guarantee teamworking	(Suprpto, Bakker, Mooi, et al., 2015)
Positivity			
	Create mutual support amongst team members	Stimulates teamworking	(Suprpto, 2016)
	Reflection and self-assessment	Important aspect to guarantee teamworking	(Suprpto, Bakker, Mooi, et al., 2015)
Best-for-project			

Clear definition of roles and responsibilities (as part of contract)	Identified element of collaborative relationships	(Suprpto, 2016)
Design ways of working with multiple identities, such as workshops instead of traditional meetings	Encourages everyone to participate, feel part of the project and think out of the box	(Hietajärvi & Aaltonen, 2018)
Long-term orientation	Critical success factor for collaborative relationship	(Suprpto, Bakker, Mooi, et al., 2015)
Focus on joint effort for improvement	Stimulates joint working	(Suprpto, Bakker, Mooi, et al., 2015)
Clear coordination	Stimulates teamworking	(Suprpto, 2016)
Co-create routines	Stimulates relational attitudes	(Suprpto, 2016)
Ensuring that regulatory demands are met	Makes sure that the project alliance is feasible in the long run	(Hietajärvi & Aaltonen, 2018)
Reflection and self-assessment	Important aspect to guarantee teamworking	(Suprpto, Bakker, Mooi, et al., 2015)

A.3: Exploratory interview with Expert C, Alliantie Markermeerdijken

Expert C, the researcher's contact person at the Alliantie Markermeerdijken, answered a few questions in order to gain more knowledge on this project alliance. The interview was held on 16 October 2020. The interview was held in Dutch because this is the mother tongue of both the researcher and the interviewee.

1. Wat is uw achtergrond en uw rol binnen de alliantie?

Ik ben manager van één van de vijf bedrijfsonderdelen (afdelingen) van de Alliantie Markermeerdijken, bedrijfsonderdeel Markt- en productontwikkeling. Ik mijn achtergrond ligt in HR. Ik ben in 2013 gestart bij HHNK op de afdeling P&O (eerste als stagiair en toen als HR adviseur). In 2017 ben ik vanuit HHNK gestart als Teamleider HR, ICT en Facilitair bij de Alliantie Markermeerdijken. Daar heb ik kennism gemaakt met het projectmanagement en ben ik uiteindelijk doorges groeid naar de rol die ik nu heb.

2. Wat is volgens u de definitie van een alliantie en wat typeert de Alliantie Markermeerdijken volgens u als een echte alliantie?

Een Alliantie is een samenwerking tussen een publieke en private partij, waarbij een ieder zijn/haar kennis en expertise in brengt om een project zo goed en efficiënt mogelijk tot uitvoering te brengen. Er is geen sprake van contractwijzigingen tussen opdrachtgever en opdrachtnemer, de uitvoeringskennis kan zo vroeg mogelijk al in het ontwerpproces worden ingebracht en is er maximale ruimte voor innovaties. Qua samenwerking vind ik de gelijkwaardigheid, openheid, vertrouwen en 'best-for-project' gedachte het mooiste.

3. Uit welke organisatieonderdelen bestaat de alliantie precies?

Zie de organogram, in verband met privacy zonder namen (see Appendix A.4). In totaal werken er nu rond de 230 medewerkers in de Alliantie. Hier is onze uitvoeringsorganisatie (Unie van Marken, mannen die buiten op de dijk aan het werk zijn) niet in meegenomen, daar zitten ook nog ongeveer 150 medewerkers.

4. Zijn er bepaalde gebruiken binnen de alliantie die specifiek de samenwerking tussen de werknemers stimuleren? Welke werkmethoden, waarden of geschreven of ongeschreven gedragsregels spelen daarbij een rol?

Er zijn projectdoelen en alliantiebeginselen gedefinieerd in de alliantieovereenkomst. Hieraan gekoppeld hebben we een aantal samenwerkings-succesfactoren opgesteld.

Projectdoelen

- Tijd: mijlpaal dijkveilig.
- Kwaliteit: conform toepisen en voor ten minste vijftig jaren.
- Omgeving: minimaliseren hinder t.b.v. van draagvlak.
- Budget: realisatie binnen beschikbare budget met passende beloning.
- Samenwerking: tussen alle partijen en betrokken derden conform Alliantiebeginselen.
- Risicobeheersing: effectief risicobeheerssysteem.
- Duurzaam bouwen: conform aanpak Duurzaam GWW.

Alliantiebeginselen:

- Best-for-project.
- Transparantie en open boek.
- Consensus en unanimiteit.
- Winst voor één-verlies voor ander: onacceptabel.
- No blame, no claim.
- Blijf positief, have fun.

Samenwerking-succesfactoren:

- Plan je werk, werk je plan
 - Ik kom mijn afspraken na
 - Ik weet altijd wat mijn doel is
 - Ik denk in mogelijkheden en oplossingen
- Begrijpen en begrepen worden
 - Ik toets mijn aannames
 - Ik controleer of ik begrepen word
- Bewust zijn
 - Ik werk conform de Alliantiebeginselen
 - Ik ben AANWEZIG
 - Ik heb toegevoegde waarde
 - Ik ben onderdeel van een groter geheel
 - Ik geef complimenten

5. In welke fase bevindt het project zich en hebben er substantiële veranderingen plaatsgevonden tijdens het project?

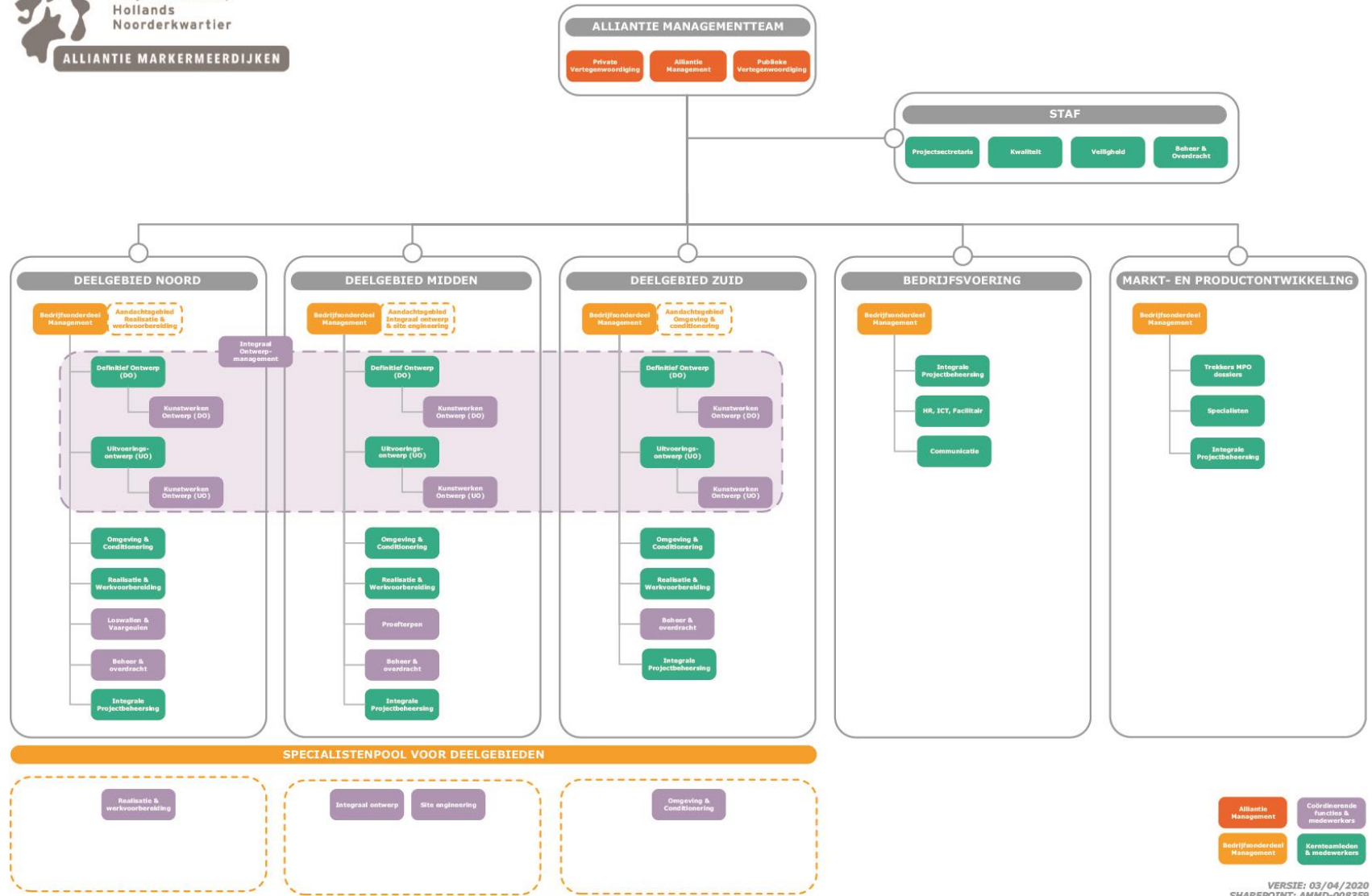
Je begint een project met een verkenning, resultaat hiervan is een keuze over de wijze/manier waarop de dijk gaat worden versterkt op de verschillende locaties. Dan ga je over naar de planvorming, je maakt voorlopige ontwerpen die je opneemt in het projectplan waterwet. Dan ga je over naar de realisatiefase, waar de werkzaamheden worden uitgevoerd. Bij een 'reguliere' projectvorm vindt de aanbesteding vaak plaats in de planvormingsfase. Binnen de alliantie is het totaal pakket aanbesteed (verkenning, planvorming en realisatie) en wordt gezamenlijk 50/50 uitgevoerd door een publiek-private samenwerking.

Ons projectplan waterwet is begin dit jaar onherroepelijk geworden (vastgesteld), intussen bevinden we ons in de realisatiefase waar we ook nog werken aan het afronden van de ontwerpen. Elke fase van het project vraagt een andere focus, organisatiestructuur en andere specialisten.

A.4: Organisational chart Alliantie Markermeerdijken

Source: Alliantie Markermeerdijken, 2020

ALLIANTIE MARKERMEERDIJKEN – ORGANOGRAM



VERSIE: 03/04/2020
 SHAREPOINT: AMMD-000359
 VORMGEVING: DEIRDRE EBERWIJN

B SCOPING ROUND

B.1: The preparation of the scoping round by the experts

Beste deelnemer,

Bedankt voor uw medewerking aan mijn afstudeeronderzoek. Deze vragenlijst dient als voorbereiding op het geplande interview. Ik zal hier onder toelichten wat ik onderzoek en wat er van u wordt verwacht.

Binnen een alliantie is het van belang dat de alliantie medewerkers van alle partijen, naast de identiteit van de moederorganisatie, een nieuwe identiteit vormen samen met medewerkers van de andere betrokken partijen binnen de alliantie. Dit wordt ook wel de collaboratieve identiteit, collectieve identiteit of organisatie identiteit genoemd. De collaboratieve identiteit gaat over de waarden, werkmethoden en samenwerking die de identiteit van de projectorganisatie vormen en die het project onderscheiden van andere projectorganisaties. Aangezien er nog maar weinig onderzoek is gedaan naar het vormen van deze collaboratieve identiteit en welke waarden en werkmethoden hiervoor nodig zouden zijn, wil ik dat voor mijn thesis graag gaan onderzoeken.

De werkmethoden beschrijven de manier waarop taken over het algemeen worden uitgevoerd binnen een organisatie. Dit zijn acties die bijdragen aan een bepaalde waarde, die de organisatie intern wil uitdragen. Om te onderzoeken welke werkmethoden en waarden er passen bij het vormen van collaboratieve identiteit, heb ik als startpunt een lijst met waarden en werkmethoden samengesteld vanuit de literatuur. De waarden passen volgens de literatuur bij een succesvolle samenwerking of bij een project alliantie. Daaronder heb ik verschillende werkmethoden geplaatst, die bijdragen aan het uitdragen van die waarde, en waarvan in de literatuur wordt gezegd dat zij bijdragen aan een succesvolle samenwerking. Het staat dus nog niet vast dat deze werkmethoden daadwerkelijk bijdragen aan het vormen van collaboratieve identiteit; de gecreëerde lijst dient alleen als startpunt om dat te gaan onderzoeken.

Het onderzoek naar wat specifiek bijdraagt aan het vormen van collaboratieve identiteit binnen een project alliantie, ga ik doen door middel van een Delphi studie. Deze voorbereiding en het volgende interview zullen dienen als mogelijke uitbreiding, inkorting of bevestiging van de door mij samengestelde lijst. Daarom is het ook niet van belang dat u ervaring heeft met project allianties, maar voornamelijk met onderwerpen als (opdrachtgever-opdrachtnemer) samenwerking en project succes. Ik wil u daarom ook vragen deze lijst naar uw eigen inzicht in te vullen, het gaat erom wat u denkt dat kan bijdragen aan het vormen van collaboratieve identiteit, niet of dit een bewezen gegeven is of niet.

Het formulier is per collaboratieve waarde ingedeeld en vraagt u steeds opnieuw om de genoemde werkmethoden de scores op belangrijkheid voor het vormen van collaboratieve identiteit: onbelangrijk, neutraal of belangrijk. Er is ook een vierde optie toegevoegd, namelijk "statement unclear" voor het geval de omschreven werkmethode volgens u multi-interpretabel, of onduidelijk is. De waarden en werkmethoden zijn in het Engels benoemd, gezien mijn afstudeeronderzoek in het Engels wordt uitgevoerd.

Tijdens het interview wil ik met u ingaan op uw mening rondom project succes, wat daaraan bijdraagt, de term collaboratieve identiteit/collectieve identiteit/organisatie identiteit, uw ervaring hiermee en uw eventuele toevoegingen aan mijn gecreëerde lijst bespreken. Mocht u tijdens het invullen van deze lijst vragen hebben over een van de aspecten, dan kunnen we die ook tijdens het interview doorspreken.

Alvast bedankt voor uw medewerking!

Vorbereiding interview

*Vereist

EQUALITY

Refers to the way individuals see their team members in comparison to themselves. It leads to a strong relationship and a feeling of belonging, which is required for collaborative identity.

Zou u de volgende werkmethoden, passend bij de waarde "gelijkheid", willen scoren op belangrijkheid voor het vormen van collaboratieve identiteit? *

	Unimportant	Neutral	Important	Statement unclear
Create mutual understanding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Create interdependence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

TOLERANCE

Refers to the way people treat and accept each other within a group; tolerance within a group leads to a willingness to cooperate from all team members.

Zou u de volgende werkmethoden, passend bij de waarde "tolerantie", willen scoren op belangrijkheid voor het vormen van collaboratieve identiteit? *

	Unimportant	Neutral	Important	Statement unclear
Prevent disputes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Create a no-blame culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

HONESTY

Refers to the way people communicate with each other; helps to build a close relationship.

Zou u de volgende werkmethode, passend bij de waarde "eerlijkheid", willen scoren op belangrijkheid voor het vormen van collaboratieve identiteit? *

	Unimportant	Neutral	Important	Statement unclear
Expressing concerns about the (new) way of working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Align goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Create a no-blame culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

GROUP SOLIDARITY

Refers to the way people feel within their group; is associated with trust, and is needed to create motivation for forming collaborative identity.

Zou u de volgende werkmethode, passend bij de waarde "groep solidariteit", willen scoren op belangrijkheid voor het vormen van collaboratieve identiteit? *

	Unimportant	Neutral	Important	Statement unclear
Create a shared vision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Involving all the parties in establishing project vision and goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Create mutual understanding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Engaging collaborators for the project who ensures collaborative mentality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Create mutual support amongst team members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Create common attitude towards problem solving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Define/identify joint goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Create shared vision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Converge on mutual conceptions of project alliancing / Searching for knowledge or alliance principles and philosophy ("who we are becoming")	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

TRUST

Refers to the way people believe in each other; trust helps to build effective working relationships, it reduces conflict, can be used as a "social glue" to keep the organization together, required for collective commitment, needed to mitigate adversarial relationships.

Zou u de volgende werkmethoden, passend bij de waarde "vertrouwen", willen scoren op belangrijkheid voor het vormen van collaboratieve identiteit? *

	Unimportant	Neutral	Important	Statement unclear
Design reward and control systems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Setting out procedures as policy and guidance for identifying attributes of trust and trust building behaviours	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Invest time into each other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ensuring that regulatory demands are met	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stimulate relationship-preserving behaviour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reflection and self-assessment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

SHARED FEELING OF "US" / COHESIVENESS

Refers to the definition of collaborative identity; the shared feeling of who they represent as a group and what makes them different from others.

Zou u de volgende werkmethoden, passend bij de waarde "gedeeld gevoel van "wij" / samenhang", willen scoren op belangrijkheid voor het vormen van collaboratieve identiteit? *

	Unimportant	Neutral	Important	Statement unclear
Schedule and maintain face-to-face interaction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Create a shared location for co-workers to work together	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Design ways of working with multiple identities, such as workshops instead of traditional meetings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Invest time into each other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enacting informal practices to reinforce the shared feeling of "us"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Enacting formal practices to reinforce the shared feeling of "us"



Creating joint external signs and a visual symbol

Being different from traditional infrastructure projects

Identifying similarities (with other project alliances) from international examples

Converge on mutual conceptions of project alliancing / Searching for knowledge or alliance principles and philosophy ("who we are becoming")

(Shared) commitment

Describes the individual's attachment to and involvement with the organization and enhances identification with the organization. Only when commitment is present, decision making can be aligned with mutual goals.

Zou u de volgende werkmethode, passend bij de waarde "(gedeelde) commitment", willen scoren op belangrijkheid voor het vormen van collaboratieve identiteit? *

Unimportant Neutral Important Statement unclear

Involving all the parties in establishing project vision and goals

Focus on joint effort for improvement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ensure top-management commitment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Long-term orientation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Co-create routines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Define/identify joint goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Create shared vision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Align goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

TRANSPARENCY / OPENNESS

Refers to the way people share their resources with each other in order to reach a higher order goal. This is an important characteristic of project alliancing.

Zou u de volgende werkmethoden, passend bij de waarde "transparantie / openheid", willen scoren op belangrijkheid voor het vormen van collaboratieve identiteit? *

	Unimportant	Neutral	Important	Statement unclear
Information/resource sharing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowledge sharing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stimulate transparent and open and frequent communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

CONSENSUS / UNANIMITY

Refers to the way people cooperate as one, agree on important aspects and make project decisions together.

Zou u de volgende werkmethoden, passend bij de waarde "consensus / unanimiteit", willen scoren op belangrijkheid voor het vormen van collaboratieve identiteit? *

	Unimportant	Neutral	Important	Statement unclear
Joint risk-management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Joint decision making	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Joint problem solving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Setting initial boundaries and identity claims for the project	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make decisions together	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Create common attitude towards problem solving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

POSITIVITY

Positivity is one of the values used in practice in project alliancing, in order to keep the spirits up and keep a healthy working environment. It refers to a positive attitude of all alliance partners.

Zou u de volgende werkmethoden, passend bij de waarde "positiviteit", willen scoren op belangrijkheid voor het vormen van collaboratieve identiteit?

	Unimportant	Neutral	Important	Statement unclear
Create mutual support amongst team members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reflection and self-assessment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

BEST FOR PROJECT

Refers to the individual's attitude towards their actions. This is an important characteristic of project alliancing.

Zou u de volgende werkmethoden, passend bij de waarde "best voor het project", willen scoren op belangrijkheid voor het vormen van collaboratieve identiteit? *

	Unimportant	Neutral	Important	Statement unclear
Clear definition of roles and responsibilities (as part of contract)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Design ways of working with multiple identities, such as workshops instead of traditional meetings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Long-term orientation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Focus on joint effort for improvement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clear coordination	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Co-create routines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ensuring that regulatory demands are met	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reflection and self-assessment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



B.2: The interview questions of the scoping round

This appendix shows the interview guideline with an introduction from the researcher and the questions. The questions form a direction for the research, but are not leading in order to leave space for the interviewee to provide insightful information. The interviews will be held in Dutch to create a more comfortable and open environment for the interviewee.

Introductie

Welkom en bedankt dat u wil mee werken aan dit interview voor mijn afstuderen. Zoals u al in de voorbereiding heeft kunnen lezen, ben ik een masterstudent aan de Technische Universiteit Delft en ben ik momenteel bezig met mijn afstudeeronderzoek van de master Construction Management and Engineering.

Ik ben bezig met het onderzoeken van de samenwerking tussen de opdrachtgever en de opdrachtnemer binnen een projectalliantie, met de focus op het vormen van een collaboratieve identiteit, omdat dit als essentieel onderdeel benoemd wordt. Ik ben aan het onderzoeken welke werkmethoden en bijpassende waarden er nodig zijn om deze collaboratieve identiteit op te bouwen binnen een alliantie, en voor ik dit binnen een alliantie ga onderzoeken, ben ik mijn kennis eerst nog aan het verbreden door middel van onder andere dit interview.

Vragen

1. Eerst een belangrijke vraag om mee te beginnen, vind u het goed als ik dit gesprek opneem voor latere analyse?
2. Zou u zichzelf willen voorstellen, en daarbij iets vertellen over uw vroegere en huidige werkervaring?
 - a. Wat heeft u specifiek gedaan rondom het onderwerp (opdrachtgever-opdrachtnemer) samenwerking?
3. Hoe zou u een succesvolle opdrachtgever-opdrachtnemer samenwerking omschrijven?
 - a. Zou u de drie belangrijkste elementen kunnen noemen die volgens u bijdragen aan dit succes?
4. Zou u kunnen omschrijven wat de term “collaboratieve identiteit”, “collectieve identiteit” of “organisatie identiteit” voor u betekent?
 - a. Heeft u deze term wel eens eerder gehoord of in de praktijk gebruikt?
5. Wat zijn naar uw idee de meest belangrijke elementen die bijdragen aan het vormen van een collaboratieve identiteit/collectieve identiteit/organisatie identiteit? U mag hierbij eventueel punten herhalen uit de lijst die ik u had gestuurd, maar dit mogen ook punten zijn die u zelf bedacht heeft.

Dan zou ik als laatste nog even uw antwoorden op de voorbereiding willen doorspreken en dan met name degene waarop u “neutraal” of “niet belangrijk” heeft ingevuld. Het gaat hier niet om goed of fout, maar ik ben vooral benieuwd naar uw achterliggende gedachte zodat ik dit kan meenemen in mijn verdere onderzoek.

[onderzoek doorspreken, eventueel extra vragen stellen]

Laatste vraag: zou u op de hoogte willen blijven van dit onderzoek?

Heel erg bedankt voor uw tijd!

B.2: Interview transcript scoping round Expert A

This is the transcript of the interview with one of the experts for the scoping round, Expert A. The interview was held in Dutch to eliminate language barriers. Interesting statements are underlined.

Geïnterviewde: Expert A (A)

Interviewer: Chiara Ligthart (L)

Datum: 09-11-2020 om 16.00 uur

Locatie: online Zoom meeting

L: Welkom en bedankt dat u wil mee werken aan dit interview voor mijn afstuderen. Zoals ik al had uitgelegd ben ik een masterstudent aan de Technische Universiteit Delft en ben ik momenteel bezig met mijn afstudeeronderzoek, waarbij ik de samenwerking tussen de opdrachtgever en de opdrachtnemer binnen een projectalliantie onderzoek, met de focus op het vormen van een collaboratieve identiteit, omdat dit als essentieel onderdeel benoemd wordt in de literatuur. Ik ben aan het onderzoeken welke werkmethoden en bijpassende waarden er nodig zijn om deze collaboratieve identiteit op te bouwen binnen een alliantie, en voor ik dit binnen een alliantie ga onderzoeken, ben ik mijn kennis eerst nog aan het verbreden door middel van onder andere dit interview.

Zou u zichzelf als eerste even kort kunnen voorstellen, en daarbij iets kunnen vertellen over uw werkervaring en waar u zich mee bezig houdt?

A: Mijn naam is Expert A, ik ben hoogleraar management van Engineering Projectum, ik heb een carrière van 30 jaar binnen shell achter de rug. Ik ben van huis uit een natuurkundige. Ik ben gepromoveerd in de vaste stof natuurkunde, in 1985. En ben daarna als onderzoeker begonnen bij Shell. Daar ben ik binnen gekomen met het idee dat ik naar general management opgeleid zou worden, dus ik ben na het onderzoek werkzaam geweest in het centrale kantoor dus met standaardisatie. Ik ben onderhoudsmanager geweest in Singapore in een raffinaderij, operatiemanager geweest in Pernis in een andere raffinaderij, en ik ben de laatste 12 jaar van die 30 jaar in projecten bezig geweest. En in die 12 jaar ben ik 7 jaar ook als deeltijd hoogleraar in Delft aan het werk, en na die 7 jaar heb ik besloten dat het leuker was om volledig in Delft te gaan werken en heb ik Shell verlaten en ben ik nu voltijd hoogleraar in Delft. Ik hou me bezig met het onderzoek naar projecten, en dan met name met de hoofdvraag waarom we na 63 jaar projectmanagement, want het bestaat sinds 1957, nog steeds niet beter gaat. Wat moeten we doen om het te verbeteren. En ik kijk dan onder andere naar relationele contracten, dus collaboratie, samenwerking, want voor mij zit de crux in de samenwerking. Als we elkaar het pand uitvechten krijgen we nooit een goed project. Als ik teams zie waar er geen onderscheid meer is tussen wij en zij, of hullie en zullie zoals dat ook wel wordt genoemd, als dat één team is en men niet meer weet of men van de opdrachtgever of opdrachtnemer kwam, dat is een noodzakelijke voorwaarde voor succes. Het is geen garantie voor succes, maar het helpt wel aan het verbeteren van de samenwerking. En ik kijk dan ook naar de invloed van complexiteit op projecten, dat is een ander onderzoek. En ik kijk naar productiviteit in constructie, dat laat ook te wensen over. En dat zijn een aantal van mijn aandachtsgebieden.

L: U zegt dat u onderzoek doet naar waarom het nog steeds mis gaat, en dat het pas echt goed gaat op het moment dat er geen wij en zij meer is. Is dat volgens u echt het aller belangrijkste aspect of zijn er meer dingen die u zou kunnen noemen als belangrijke voorwaarden voor succesvolle samenwerking?

A: Het is een van de belangrijkste voorwaarden. Je hebt ook topmanagement commitment nodig, beide partijen moeten er achter staan dat we op deze manier aan het samenwerken zijn. Dus dat is

ook nog steeds gerelateerd aan samenwerking. En we zien ook dat je een alignment op doelen moet hebben en dat wil nog wel eens lastig zijn. Want een contractor zit er anders in dan een opdrachtgever. Een opdrachtgever wil een mooi gebouw neerzetten, de contractor wil geld verdienen. En dat is niet altijd hetzelfde. Je moet echt moeite investeren om gezamenlijke doelen te krijgen. Dat betekent dus ook dat je in deze dingen heel veel tijd moet geven aan teambuilding. Uiteindelijk zeg ik, we kunnen allerlei dingen aan tools en technieken ophoesten, maar het zijn uiteindelijk de mensen die het project moeten doen dus die mensen moeten het met elkaar kunnen vinden. En dat zijn zo'n beetje de belangrijkste dingen bij elkaar om succesvolle projecten op te leveren denk ik.

L: En dan ingaand op de term collaboratieve identiteit/collectieve identiteit/organisatie identiteit, dat lijkt een beetje op wat u benoemt als een van de belangrijkste aspecten, klopt het dat u dat ook zo zou omschrijven?

A: Dat denk ik wel. Of je dat nou per sé identiteit noemt of collaboratieve identiteit, dat vind ik erg zwaar klinken, maar in feite betekent dat dat als ik een project opstart dat ik eerst de tijd besteed om ervoor te zorgen dat de mensen elkaar leren kennen. Dat ze weten wat hun drijft, waar ze warm voor lopen. En dat kan je op allerlei verschillende manieren doen. En uiteindelijk kom ik dan vaak met een simpele team charter, die laat zien hoe we willen gaan samenwerken. Dus ik geef heel veel tijd aan de zachte kant en aan die mensenkant om dat voor elkaar te krijgen. Een van de krachtigste dingen die we ooit gezegd hebben is "je mag best boos zijn op elkaar, maar je mag niet boos blijven op elkaar" dus dat soort dingen moet je daarin meenemen. En sommige dingen klinken dan heel obvious, maar het is wel goed om daar even bij stil te staan van hoe gaan we dat doen en dat je weet wat mensen drijft. Dat gebruik ik niet alleen in projecten maar ook in grote vergaderingen met een groot aantal mensen. Hoe zit je erin, even 5 minuten bespreken, want als bijvoorbeeld iemand zijn fiets net is gestolen zit je anders in die vergadering dan wanneer je net taart hebt gegeten, om maar een dwarsstraat te noemen. Je bent met mensen bezig, dus die mensen moet je de ruimte geven. En als je dat dekt met collaboratieve identiteit, wat ik nogmaals erg zwaar vind klinken, maar een project is een organisatie op zich en die moet je vormen en die moeten een identiteit krijgen en dat kan soms ook met een logo of naam, dat zijn allemaal dingen die bij die identiteit horen wat mij betreft.

L: Het kan misschien wat zwaar klinken, dat is hoe ik het in de literatuur heb gevonden en omdat het als zo belangrijk bestempeld wordt, geven ze dat natuurlijk een naam. Maar het is in elk geval goed dat u wel beaamt dat het wel een ding is in de realiteit, om het zo maar te zeggen.

En u heeft dan al benoemd dat het vormen van die collaboratieve identiteit, daarvoor is het dus heel belangrijk dat je weet hoe mensen erin zitten.

A: Ja, want die mensen heb je daarbij nodig. Je kunt niet collaboratieve identiteit voor hun maken, je moet dat met hun doen. Je moet daar echt de tijd voor nemen. Dat is dan ook projecten eigen dat je zo snel mogelijk aan de slag wil, maar om dan een dag of 2 dagen erover te praten, is voor veel van die mensen vreemd. Maar daar moet je echt wat aan doen om dat voor elkaar te krijgen.

L: En wat zijn nog meer aspecten die daarvoor belangrijk zijn? Om dat te gaan starten?

A: Het hangt ook van je management stijl af. Wat voor type manager ben je? Als je een ontzettende control freak bent, ga je die collaboratieve identiteit van jou niet krijgen. Je moet dan meer een coachende leider zijn, je moet mensen de ruimte geven, mensen vertrouwen, jij bent expert op jouw gebied en jij kunt het doen, maar zijn er problemen, dan kom je langs en kan ik je helpen. Maar dat betekent niet dat je op bepaalde momenten niet directief moet zijn. Maar het is meer, wat is belangrijk om dat voor elkaar te krijgen, dat er ook een atmosfeer, een sfeer is, waar mensen hun zorgen durven delen, hun ongenoegen kenbaar durven en kunnen maken zonder daarop afgerekend te worden. Dus

je moet een team sfeer en omgeving creëren als in een goed sport team, waar je met elkaar en voor elkaar werkt. Dat is wat je wil bereiken.

L: Denkt u dan ook dat het bij verschillende teams, het vorm van zo'n identiteit, of het gezamenlijke gevoel. op een andere manier zou moeten gaan? Of dat dat wel enigszins op een zelfde manier zou moeten kunnen gaan?

A: Je hebt volgens mij procedures en standaards nodig. Aan de andere kant ben ik ook een aanhanger van de uitspraak van Eisenhower die op de voorbereiding op D-day zei "a plan is useless, but planning is indispensable" en dat is precies die tweespalt. Die planning betekent dat je bepaalde stappen nodig hebt om doorheen te gaan, maar aan de andere kant weet je dat het plan kan wijzigen. Maar je moet de procedures goed kennen om in staat te zijn om er vanaf te wijken. En dat is precies wat die uitspraak zegt. En als jij dan op de Normandische kust landt, en je ligt onder geweervuur wat je niet had verwacht, zul je moeten improviseren, maar omdat je het plan gemaakt hebt en de stappen het doorlopen, kun je daar goed mee omgaan op dat moment.

L: Dus je zou dezelfde soort procedures in lijn moeten kunnen volgen, maar je wel kunnen aanpassen waar dat nodig is om tot het gewenste resultaat te komen.

A: En dat noem ik dan "one size does not fit all", en aan de andere kant moet je dus zoeken naar een fit for purpose, wat voor team heb ik hier, wat voor mensen, en het ene team zal iets anders vragen dan het andere team. En daar moet je op inspelen. En dan zijn er bepaalde dingen die je altijd wil doen, maar die zul je op een andere manier verkopen of aan de man brengen. Je moet voorkomen dat dat een dwangbuis wordt die je op een team legt, want dan ga je het niet redden. Het moet in feite van onderaf komen, maar het moet wel van bovenaf gefaciliteerd worden en zorgen dat het gebeurt. Het kan niet top-down, het moet bottom-up maar dat moet je dus wel faciliteren. Om je antwoord strakker te maken, je zal dus altijd de elementen willen hebben, maar hoe je die elementen toepast, zal altijd op een andere manier gebeuren afhankelijk van de situatie, het project, de omgeving en de tijdsdruk enzovoorts.

L: Hoe dat ingevuld gaat worden kun je dus eigenlijk niet van te voren bepalen, omdat dat per project zal verschillen, maar je kunt wel aangeven wat ze in grote lijnen moeten doorstaan?

A: Ja, dus dat je het wil invullen is duidelijk, maar hoe je het invult dat moet je de ruimte laten.

L: Oké. Dan zou ik nog graag een aantal van uw antwoorden van de voorbereiding willen doorspreken, en dan met name degene waar u neutraal of niet belangrijk op heeft ingevuld.

De eerste daarvan is bij de waarde tolerantie, preventing disputes, dus onenigheid voorkomen, en daar heeft u neutraal ingevuld. Kunt u uitleggen waarom u dit zo heeft ingevuld?

A: Onenigheid kan, in lijn met wat ik net al als grapje zei dat je boos mag zijn maar niet boos mag blijven, verfrissend zijn. Dus het is goed om iets uit te vechten want dan weet je waar je staat. Het hoeft niet met bloedende neuzen en zo, maar het kan wel verfrissend zijn. Beter uitvechten dan het onderhuids laten door etteren. Dat is waarom ik het als neutraal heb ingevuld. Het is niet per sé slecht om een conflict te hebben.

L: Het hoeft volgens u dus niet per sé voorkomen te worden, maar het moet uitgesproken worden als het ontstaat.

A: Ja, exact.

L: Dat is dan duidelijk. Dan het volgende punt, onder de waarde vertrouwen, design reward control systems, had u ook neutraal ingevuld.

A: Ja, een reward system is prima, maar je moet oppassen dat het niet te zwaar is. Als projectteam kan je je niet altijd volledig isoleren van het moeder bedrijf, je moet ook in lijn met de systemen van het moederbedrijf, en een van de dingen waarom ik daarop trigger is omdat veel grote bedrijven prachtige beoordelingssystemen hebben, maar die zijn allemaal op persoonlijke titel gericht, er zijn maar heel weinig bedrijven die een team beoordelingssysteem hebben. Dus vandaar dat ik vind dat je daar voorzichtig mee moet zijn en dat het moet passen. Maar hoe ik het team wil beoordelen past niet altijd binnen het bedrijf waarin mijn team opereert. Dus vandaar dat ik daar ook neutraal invul, het kan niet altijd.

L: Maar stel dat de nieuwe alliantie deze control systems voor hun nieuwe team opstelt. Zou het dan wel kunnen passen, of is het probleem er dan nog steeds?

A: De andere trigger, je herhaalt hem nu en dat is goed dat je dat doet, is dat het over control systems gaat. Dat gaat me te ver. Je kan een reward systeem hebben, maar dat is iets anders dan een reward control systeem. Dus dat bedoel ik en dan denk ik dat als we het er even op triggeren dat we een reward systeem willen hebben, dan kan de alliantie dat wel neerzetten, maar dan moeten de moederbedrijven van de allianties daar wel mee instemmen. Dus als jij in een projectteam dan ineens veel meer kan gaan verdienen omdat je daar een ander reward systeem hebt dan in het moederbedrijf dan krijg je daar scheve ogen en allerlei problemen, dat zal niet snel worden toegestaan. Dus dan moet je altijd binnen de marge blijven van wat de moederbedrijven al hebben. En dat is lastig. Dat wil je ook niet altijd.

L: Oke, duidelijk. Het volgende punt gaat over “setting out procedures as policy and guidance for identifying attributes of trust and trust building behaviours”. Daar hebt u ook neutraal ingevoerd.

A: Ja, klopt. Trust is niet te vangen door procedures. Dat is in kort waar het op neer komt. Ik moet jou vertrouwen anders geef ik geen open antwoorden. Als ik je niet vertrouw kunnen we er een procedure van maken, maar dat gaat niet werken. Ik heb ooit een gast docent gehad, dat was wel heel leuk, die kwam en vroeg als eerste statement “vertrouwen jullie mij? “. Aan de hele groep studenten. Waarop zij zeiden, dat hang van een heleboel dingen af. Dat is prima zei hij, maar we hebben het er wel over dat we elkaar moeten vertrouwen. Maar als ik jullie dat direct vraag, zeggen jullie terecht dat dat tijd kost en dat dat zich moet opbouwen. We hebben het er altijd over dat vertrouwen belangrijk is, maar als je iemand vraagt of hij je vertrouwt, gaat het over dat dat over tijd moet groeien. Dus vandaar dat ik daarbij niet geloof in procedures om dat te bewerkstelligen.

L: Je kunt het dus niet sturen, maar het kan eigenlijk alleen met de tijd ontstaan?

A: Ja, ik denk dat je dat niet moet gaan proberen te sturen. Dan wordt dat te geforceerd. Kijk eens even hoe geweldig jij mij kunt vertrouwen. Dan denken mensen van ja, dat kan, over een paar maanden als we gezien hebben wat er gebeurd is, maar je kunt niet meer vragen dan dat.

L: Duidelijk. Dan de volgende ook nog over vertrouwen, ensuring that regulatory demands are met. Daar heeft u unimportant ingevoerd.

A: Ik denk dat die regulatory requirements met trust onverenigbaar zijn. Ik zie niet in wat dat voor invloed heeft op elkaar. Ik zie dat niet.

L: Denkt u wel dat die regulatory demands nodig kunnen zijn voor het opbouwen van collaboratieve identiteit als je dat los ziet van het stukje vertrouwen? Zou u het dan anders beoordelen?

A: Nou, het feit dat ik regulatory demands heb betekent dat dat ik aan bepaalde permits moet voldoen, of andere zaken, dat zijn wat mij betreft gewoon randvoorwaarden. Dat is het speelveld waarbinnen ik moet opereren. En die kan ik dus niet naast me neerleggen want die demands liggen er en daar moet ik iets mee. Maar of die er wel of niet zijn, maakt dat voor het vertrouwen en de collaboratieve identiteit niet uit wat mij betreft. Het is niet een blanco wereld waarin we kunnen doen wat we willen, we moeten binnen gegeven omstandigheden iets realiseren en dat is een gegeven. Dus dat doet er dan verder niet toe.

L: Ik had het onder vertrouwen geschaard omdat het wel vertrouwen kan geven dat er aan tegemoet gekomen wordt. Dus dat het inderdaad lukt om je daaraan te houden. Maar je moet je er inderdaad altijd aan houden, het is geen optie om het niet te doen.

A: Nee, als het echt demands zijn zoals je ze hier noemt, dan zijn het geen opties. En dan hooguit kan ik vertrouwen kunnen winnen, als je het helemaal omdraait, van deze demands leggen we naast ons neer en ik zal verdedigen tot op de laatste snik dat we die demands niet hoeven te doen. Dan kan het naar je team vertrouwen geven dat ik voor hun sta en een aantal eisen weerleg zodat we makkelijker kunnen opereren. Maar of ik dat kan vasthouden en realiseren moet ik vreselijk mee oppassen. Het zou ook een truc kunnen zijn, met nadruk op truc, van oh hij staat er voor ons en hij is bereid zijn nek uit te steken. Maar dat was niet de strekking van je vraag.

L: Nee, maar het geeft wel wat kleuring aan de vraag. Ik vind dit natuurlijk allemaal in de literatuur, maar hoe dat dan in het echt gaat is voor mij lastig inschatten. Daarom helpt dit heel erg om daar wat meer beeld bij te krijgen.

A: Je kan dus inderdaad zien dat je er voor je team staat en als Don Quichote de molens bestrijden. Je kan daar 1 of 2 dingen van proberen maar als je dat altijd doet ben je ook niet meer geloofwaardig.

L: Oke, dan gaan we nu naar de waarde “shared feeling of us” of “gedeeld gevoel van wij”. Bij de werkmethode being different from traditional infrastructure projects, had u neutraal ingevuld.

A: Ja, ik weet niet, het kan een manier zijn om je af te zetten tegen andere projecten. Maar ik vind het gevaarlijk. Verschillend zijn op zich is mogelijk niet genoeg om succesvol te zijn. Maar het kan dat als je verschillend beter bent, oké, maar dan moet je weer oppassen dat je niet arrogant wordt. Dat is een hele subtiele balans. Ik zou zeggen let maar op mijn daden en niet mijn woorden, dus laat maar zien dat je beter bent en meer succesvol bent en dan kun je wat laten zien, maar om daar vanuit te gaan vind ik gevaarlijk.

L: De volgende gaat over “identifying similarities with other project alliances from international examples, daar heeft u unimportant ingevoerd.

A: Ik denk dat dit soort dingen heel erg context afhankelijk zijn. Dus je moet oppassen dat je wel appels met appels vergelijkt. Dus er kunnen elementen zijn die interessant zijn zoals anderen ze hebben gedaan, maar als dat bijvoorbeeld een internationaal project is in een heel andere omgeving enzovoorts, moet je oppassen of dat wel toepasbaar is in jouw geval. Ik denk dat dat in allianties wel vaker fout gegaan is. Dat een bepaalde benadering dus in NL prima werkt maar bijvoorbeeld in Zuid-Afrika niet. Door en andere cultuur en omgeving enzovoorts.

L: Zou dat binnen Nederland volgens u dan wel kunnen werken, met verschillende allianties?

A: Dan nog moet je oppassen. Of je het hebt tussen een waterschap en Rijkswaterstaat, of een alliantie tussen Shell en BAM international, ik noem maar een paar wilde vergelijkingen, dat zijn weer andere

omstandigheden, dus je moet altijd goed kijken of je dit in een andere context ook kunt toepassen. Dat is wel essentieel denk ik, met name ook voor allianties.

L: De volgende zit in dezelfde richting: Converge on mutual conceptions of project alliancing of ook wel searching for knowledge or alliance principles and philosophy. Daar heeft u neutraal ingevuld.

A: Wie gaan er convergeren, daar zat ik mee. Beide partijen die dat doen, of als alliantie convergeren naar wat andere allianties doen? We dealen met mensen, er zitten mensen in die alliantie, en die moeten kijken wat er bij hun situatie het best past. Dus dan ga ik niet, in tegenstelling tot veel mensen, uit van het contract op zich, maar van de relatie. En als die relatie er is, is die sturend. En ik ben niet naïef, je moet het wel vastleggen, maar de relatie moet je op sturen. En als ik dan ga kijken wat alle andere allianties als randvoorwaarden hebben gesteld, dan kunnen ze van toepassing zijn maar misschien ook niet. Maar als ik 20 mensen bij elkaar breng en we gaan dit doen, dan moeten we met die 20 een format vinden wat voor ons werkt. Dus vandaar dat ik daar wat neutraler in was.

L: Oké, duidelijk! Dan het volgende puntje, onder gedeelde commitment, long term orientation. Daar heeft u ook neutraal ingevuld.

A: Dat is afhankelijk van hoe je de alliantie insteekt. Een project alliantie is ingedeeld voor de duur van dat project, dus als je dan op langere termijn kijkt denk ik aan een DBFM of DBFMO, dan kijk je misschien naar een alliantie voor 25 of 30 jaar. Maar ik kijk meestal zelf naar de project duur en dat is niet per definitie long term. Dat geldt alleen voor de duur van het project, wat dan bijvoorbeeld 5, 7 of 10 jaar is.

L: Het is dus wel belangrijk om die oriëntatie te hebben voor het hele project? Dus het gaat om hoe de lange termijn wordt gedefinieerd.

A: Ja, dus het geldt niet voor repetitieve projecten. Je kunt project na project bekijken als je dat met dezelfde eenheid doet, dat zou mooi zijn want dat is verbeteren van het project resultaat, daar geloof ik wel in, maar je ziet dat gewoon heel weinig. Dat een heel team van project na project door de loop der jaren gaat.

L: Dan bij consensus of unanimiteit, setting initial boundaries and identity claims for the project. Daar heeft u neutraal ingevuld.

A: De identity claims struikelde ik over. De boundary conditions for the project is helder en goed als dat duidelijk is. Maar of je daar ook identity claims bij kan zetten, dat kon ik niet met elkaar verenigen.

L: Dat is dan misschien ook weer te hard?

A: Ja, identity claims, zou misschien een logo of een vlag kunnen zijn, of het briefpapier, weet ik veel, maar ik kon daar niks mee. Dat vond ik heel moeilijk. Misschien is dat mijn onervarenheid met identity claims.

L: Dat maakt niks uit, want deze informatie helpt ook heel goed. Want deze combinatie heb ik samen gevonden, daarom stel ik hem ook precies zo, om erachter te komen wat daarover gedacht wordt door anderen. Maar blijkbaar is het dus niet helemaal duidelijk of kan het niet samen, dus dan ga ik even verder kijken.

A: Als ik er wat langer over nadenk, we hebben een boek geschreven, project and people heet dat, en daar staat een hoofdstuk in geschreven door Alfons van Marrewijk over de Hogesnelheidslijn Zuid. Waar ze dus in de vroege fase echt hebben geprobeerd een andere identiteit neer te zetten. En ik weet niet of je de bijbel een beetje kent, maar ze noemde dat de Gideonsbende, dat waren mensen die echt

hun eigen ding deden, los van alle autoriteiten, dit is hoe wij dit willen neerzetten. En dat ging in de definitie van het project heel goed, maar in de uitvoering werkte dat niet meer en heeft de opdrachtgever, in dit geval Rijkswaterstaat, moeten ingrijpen om dingen weer terug te halen naar hun normale manier van werken. En daar zit iets bij van ja, die hadden wel een identity claim om het zo te zeggen, ze waren anders, ze waren de Gideonsbende, maar uiteindelijk konden ze dat dus niet waarmaken in hun executie fase. Dus vandaar dat ik daar dus wat mee worstelde met dat idee.

L: Dus het zou kunnen dat over de verschillende fases die zelfde identity claim niet kan blijven voortbestaan. Of dat het anders zou moeten zijn.

A: Ja, dat is wat ik daarmee aangeef. Dus dat is de moeite waard, hoofdstuk 8 in het boek projects and people als je dat wil nalezen.

L: Super, ik ga er eens naar kijken. Dan als laatste waarde nog best-for-project: clear definitions of roles and responsibilities as part of the contract. Daar had u neutraal ingevuld.

A: Ja, met name omdat het as part of the contract is. Dat je die duidelijke rollen en verantwoordelijkheden moet hebben ben ik het niet mee oneens. Maar het contract lijkt hier weer leidend te zijn, maar nee het gaat weer om de mensen die hier samenwerken. Dan besluiten wij samen dat jij dit doet en ik dat, en dan hebben wij onze rollen en verantwoordelijkheden duidelijk. Op basis van vertrouwen en de manier van werken. Als je dat met het contract in de hand gaat doen, gaan we al op een slippery slope. Ik zeg altijd het contract is prima, maar als ik het contract nodig heb om de situatie op te lossen dan ben ik al verloren. Mijn people focus gaat dus heel ver, laat ik het zo zeggen.

L: De rollen en verantwoordelijkheden gaan dus meer over vertrouwen op elkaar dat het goedkomt, dan dat je dat echt vastlegt.

A: Ja, je moet het uitspreken naar elkaar want we moeten er samen uit zien te komen. En als ik dan vind dat jij heel goed bent met Excel en ik ben beter in Powerpoint, doe jij de spreadsheets en ik de presentaties. Om maar wat te noemen. En dat gaan we niet in een contract vastleggen, nee daar komen we samen als team uit. Misschien is dat wel een tikje naïef, maar zo doe ik het graag.

L: Het volgende punt is weer long-term orientation, heeft u dat weer met dezelfde intentie als neutraal ingevuld?

A: Ja, dat was met dezelfde intentie.

L: Het laatste puntje is dan weer ensuring that regulatory demands are met. Daar heeft u weer onbelangrijk ingevuld, ook weer met dezelfde reden als bij de ander?

A: Ja, ik vond het een herhaling van zetten.

L: Een aantal van de werkmethoden vielen onder meerdere van de kopjes, dus heb ik ze overal bij gezet om in elk geval duidelijk te maken waar het mee te maken heeft.

A: Nou goed, dat is een vorm van triangulatie, kijken of mensen op dezelfde manier antwoorden, maar het kan ook irritatie opwekken dus daar moet je mee oppassen. Als dingen een aantal keer terugkomen denk je ja dat heb ik al beantwoord. Dus dat kan gebeuren.

L: Dat is goed om te weten. Dan waren dat voor nu mijn vragen. Dan wil ik u heel erg bedanken voor uw tijd!

A: Nou leuk, heel veel succes, ik ben erg benieuwd wat er uit komt. Succes met het onderzoek en voornamelijk veel plezier ermee, want dat is wel heel belangrijk!

B.4: Interview transcript scoping round Expert B

This is the transcript of the interview with one of the experts for the scoping round, Expert B. The interview was held in Dutch to minimize language barriers. Interesting statements are underlined.

Geïnterviewde: Expert B

Interviewer: Chiara Ligthart (L)

Datum: 12-11-2020 13.00 uur

Locatie: online Zoom meeting

L: Welkom en bedankt dat u wil mee werken aan dit interview voor mijn afstuderen. Zoals ik al had uitgelegd ben ik een masterstudent aan de Technische Universiteit Delft en ben ik momenteel bezig met mijn afstudeeronderzoek, waarbij ik de samenwerking tussen de opdrachtgever en de opdrachtnemer binnen een projectalliantie onderzoek, met de focus op het vormen van een collaboratieve identiteit, omdat dit als essentieel onderdeel benoemd wordt in de literatuur. Ik ben aan het onderzoeken welke werkmethoden en bijpassende waarden er nodig zijn om deze collaboratieve identiteit op te bouwen binnen een alliantie, en voor ik dit binnen een alliantie ga onderzoeken, ben ik mijn kennis eerst nog aan het verbreden door middel van onder andere dit interview.

Zou u zichzelf even kunnen voorstellen en daarbij iets kunnen vertellen over uw vroegere en huidige werkervaring en waar u zich zoal mee bezig houdt?

B: Ik ben Expert B, werkzaam bij universiteit Twente, afdeling civiele techniek. Structural management and engineering. Veel jaren al op de universiteit werkzaam, kom oorspronkelijk uit Duitsland, dat hoor je. Achtergrond is civiele techniek, gepromoveerd meer op management onderwerp, innovatiemanagement in de bouw. En sinds enkele jaren op de universiteit bezig met het onderwerp infrastructuur management, wat in brede zin gaat om hoe zorg je ervoor dat je jouw infrastructuur op een bepaald prestatieniveau houdt en dan hoort daar nog bij hoe betrek je andere partijen dan nog daar bij, hoe zet je contracten op, hoe werk je samen met private partijen zeg maar ik als structuur eigenaar, dat kunnen publieke partijen zijn. Dus vooral daar ook allerlei onderzoek over samenwerkingsverbanden tussen publieke opdrachtgevers en private opdrachtnemers, en ook in publiek-private samenwerkingsverbanden. Dat is het in het kort denk ik.

L: Oké. En hoe zou u vanuit uw achtergrond een succesvolle samenwerking omschrijven tussen een opdrachtgever en een opdrachtnemer?

B: Dat is natuurlijk een lastige, hè. Dat is afhankelijk van de partijen, hoe zij daarin zitten en wat ze zelf denken dat succes is. Wat ze uiteindelijk waarderen in zo'n samenwerkingsverband, zeker in het algemeen is het resultaat van de samenwerking als dat aansluit bij de verwachting en doelen die ze hebben. Maar aan de andere kant ook hoe het proces is verlopen, toch ook op een manier hebben samenwerkt dat wel tot het beeld leidt dat iedereen op een bepaalde manier heeft bijgedragen om tot het resultaat te komen. Is een beetje algemeen maar ik denk dat dat heel verschillend kan zijn, hoe mensen er tegenaan kijken wanneer zo'n samenwerking succesvol is. Wat zijn belangrijke aspecten daarin die daaraan bijdragen, dat is natuurlijk iets wat van af het begin natuurlijk als team verantwoordelijkheden krijgen, zeg maar hoe je zelf daarin staat, wat je zelf denkt dat belangrijk is in een specifieke samenwerking en specifiek project, wat is dan nodig om tot een bepaald resultaat en tot bepaalde samenwerking te komen. Dus ja.

L: Het scheelt dus per project of per team zou u zeggen?

B: Ja, en ook per persoon, per individu die daarin zit. Iedereen heeft zijn eigen beeld daar bij. En dat is heel belangrijk. Dat is een punt die wel speelt wat je ziet he, je hebt te maken met individuen met eigen persoonlijkheden, eigen gedrag en kenmerken, en bepaalde mening en overtuiging, maar daarnaast hebben ze ook een bepaalde rol die ze gaan vervullen in zo'n project, en ze hebben een bepaald verband met de organisatie met de projectorganisatie die ze vertegenwoordigen in zo'n project. Dus daar ontstaat wel een bepaald spanningsveld. Maar dat beïnvloedt dan ook hoe mensen daar, de projectmedewerkers en het team functioneert. En hoe ze tot een samenwerking komen of niet.

L: Denkt u dat zo'n collaboratieve identiteit, zoals ik had uitgelegd in mijn introductie, dat dat in het echt ook een belangrijk ding is, heeft u daar wel eens over gehoord? Of misschien op een bepaalde manier toegepast in de praktijk?

B: Dat is een begrip die uit de alliantie literatuur komt denk ik. Dit soort begrippen of wat erachter staat was in het verleden ook in de Nederlandse context sprake van partnering, een beetje diezelfde kant op. Waar je probeert als gezamenlijk team te opereren en een bepaalde doelstelling te hebben. Maar wat was je vraag nu?

L: Of u de term of het idee van collaboratieve identiteit kent en het in het echt wel eens bent tegengekomen? Dat hoeft niet per sé binnen een alliantie te zijn, mag ook gewoon binnen een samenwerking. En of dat volgens u ook belangrijk is voor de samenwerking.

B: Ja, ik zou ja zeggen in het algemeen. Maar ik denk wel dat je natuurlijk ziet dat mensen als ze een sterke identiteit met het project vormen of zich sterk als project lid zien, dat daar natuurlijk ook een sterker verband ontstaat. En dan ook een groene licht tussen de verschillende teamleden. Dus vandaar denk ik wel dat dat speelt. De vraag is natuurlijk altijd wat is dan een team? Wie beschouw je dan als team, en wanneer is een team een team? In projecten heb je vaak mensen die samenkomen op basis van een contract die gesloten is, een project die gegund is, en er is dan iemand die die opdracht verstrekt en iemand die die opdracht uitvoert. En dan is de vraag, hoe komen die partijen dan bij elkaar, en kunnen ze zich wel vinden in zo'n project. En dat betekent niet dat zo'n identiteit per se nodig is om een project succesvol te laten verlopen. Ik denk dat het als opdrachtnemer als opdrachtgever gaat optreden, maar iedereen heeft zijn eigen belang en doelstelling, maar ze werken op een bepaalde basis die in het contract staat, maar dat ze toch op basis van een begrip en rollen toch tot een tevredenstellend resultaat komen. Maar niet per se dat ze een project identiteit moeten hebben. Ze zitten natuurlijk meestal wel in een spagaat dat ze in zo'n project willen laten verlopen natuurlijk met hun counter part ook een goede relatie willen houden maar tegelijkertijd zijn ze ook onderdeel van een grotere organisatie die erachter zit en die ook bepaalde belangen heeft in het project en die ook dingen vraagt van hun en daar denk ik dat een spanningsveld zit voor die teamleden in zo'n project. En of het dan zo ver gaat dat ze zichzelf meer als onderdeel zien van het project dan van de organisatie, dat weet ik niet. Dat zou kunnen, maar ik denk niet dat dat per se nodig is om een project succesvol te maken.

L: Ok, dan zou ik graag uw antwoorden op de voorbereidende vragen willen doorspreken. En dan met name degene waar u neutraal, niet belangrijk of statement unclear heeft ingevuld. Om wat meer idee te krijgen wat uw gedachtegang daarbij is. De eerste was onder de waarde gelijkheid, create interdependence, heeft u statement unclear ingevuld. Kunt u uitleggen waarom?

B: Het was mij niet duidelijk wat je met interdependence dan bedoelt.

L: Het gaat over de interdependence tussen de partijen die samenwerken, dus dat de opdrachtgever zich afhankelijk voelt van de opdrachtnemer en andersom. Waardoor ze goed zouden kunnen samenwerken. Omdat ze zich ervan bewust zijn dat ze afhankelijk van elkaar zijn.

B: Voor mij klonk het een beetje alsof je die moet creëren die afhankelijkheden, maar volgens mij zijn die afhankelijkheden er al in zo'n project. En als je het zo uitlegt denk ik dat het meer is dat je die bewustwording daarvoor moet creëren. Dat je je bewust bent hoe je afhankelijk bent van die andere partij. Maar dat is weer die punt dat het duidelijk is welke rol en verantwoordelijkheden je hebt in de samenwerking en wat iedereen gaat bijdragen in het project en daarin komen ook die afhankelijkheden naar voren.

L: Duidelijk. Het volgende puntje was prevent disputes, dus het voorkomen van onenigheid. Daar heeft u onbelangrijk ingevoerd.

B: Ik weet niet precies wat voor escalatieniveau van conflicten je daarmee bedoelt, dat weet ik niet. Maar ik denk dat een conflict die ontstaat, die kan ontstaan en dat gebeurt ook vaker in zo'n samenwerking, dat dat wel waardevol kan zijn en kan bijdragen aan die samenwerking. Het vermijden is lastig, en je kan het niet helemaal voorkomen, en ik denk ook dat zo'n conflict als die er is die kan ook, ook als het een stevig conflict is, maar als die twee partijen daar dan wel samen kunnen oplossen, is dat heel waardevol voor de samenwerking.

L: Ok, dus u zou zeggen dat het belangrijker is dat de conflicten die ontstaan worden opgelost, dan dat ze voorkomen worden?

B: Ja.

L: Ok, dat is duidelijk. Dan het volgende puntje onder eerlijkheid, align goals. Had u statement unclear ingevuld.

B: Het was voor mij niet duidelijk wat er mee bedoeld is, meestal als ik unclear invul. In dit geval denk ik dat het samenhangt met de waarde die daar genoemd is.

L: Dus u weet niet waarom het op een lijn brengen van de doelen, samen gaat met eerlijkheid?

B: Ja.

L: Dit is juist goed voor mij om te weten welke statements er niet duidelijk zijn want ik ga ze hierna voor mijn vervolgonderzoek gebruiken, dus dan kan ik alvast wat aanpassingen doen. Dus dat is alleen maar fijn dat u dat aangeeft.

Het volgende punt is create a no-blame culture, daar had u neutraal ingevoerd.

B: Ja, dat was ook weer voor eerlijkheid he?

L: Ja.

B: Even nadenken. Aan de ene kant moet je open omgaan met gebeurtenissen die onverwacht zijn en dat je zelf de verantwoording daarvan draagt. Maar ik denk dat het meer dat die no-blame culture niet tot eerlijkheid leidt, maar dat eerlijkheid een uitgangspunt is om zo'n cultuur op te laten ontstaan. Maar ik weet niet meer precies waarom ik neutraal heb ingevuld.

L: Dan gaan we naar het volgende punt, geeft niks. De volgende waarde was groepssolidariteit. En het eerste punt daar was: involving all the parties in establishing project vision and goals. En daar heeft u statement unclear ingevuld.

B: Ja daar was het voor mij niet duidelijk wat je bedoelde met all parties.

L: Dat was niet duidelijk? Ok.

B: Nee, ja, bedoel je dan alleen maar de opdrachtgever en opdrachtnemer, of ook andere stakeholders, wat bedoel je daarmee? Dat was voor mij niet duidelijk.

L: Ok, dan ga ik daar nog even naar kijken om dat aan te passen. Het volgende puntje was create mutual understanding, daar had u neutraal ingevoerd.

B: Mijn vraag is dan mutual understanding voor wat, je moet zeker een soort begrip hebben voor elkaar en de belangen die je hebt, maar is een beetje afhankelijk van waar het over gaat. Je hoeft het niet per se met alles eens te zijn. Je moet elkaar zeker begrijpen, de belangen van de ander, maar je moet zeker niet per se met alles eens zijn. Dat is denk ik ook een beetje het punt met die alignment van die goals, want je hebt meestal ook andere doelen en die kunnen ook tegenstrijdig zijn en dat kan wat betekenen voor het project, maar als je vraagt wat alignment dan is, hoe ver ga je daar dan in? Ga je je doelen aanpassen? Je kunt ook accepteren dat de ander een andere doelstelling heeft en daar kun je ook begrip voor creëren en daarover hebben wat dat kan betekenen voor het project.

L: Ok, duidelijk. Het volgende puntje was engaging collaborators for the project, who ensures a collaborative mentality. Daar had u statement unclear ingevuld.

B: Ja dat was voor mij niet duidelijk wat je daarmee bedoelt.

L: Alle punten die hier staan heb ik zelf uit de literatuur gehaald en dus niet zelf verzonnen. Maar er wordt mee bedoeld dat er iemand is die specifiek deze taak op zich neemt, dus dat die ervoor zorgt dat die ervoor zorgt dat het samenwerken goed verloopt. Die doet verder niks anders behalve zorgen dat alles goed loopt. Dus het faciliteren van het samenwerken.

B: Ja, ik weet niet of dat helpt. Het zou misschien kunnen dat er iemand is die zo'n rol gaat vervullen maar of je dat direct kunt toewijzen als verantwoordelijkheid weet ik niet, dat heeft ook te maken met de persoon zelf en zijn persoonlijkheid en zijn kenmerken. Dat moet iemand zijn die echt mensen met elkaar kan verbinden. Die zich ook kan verplaatsen in de positie van iemand anders, maar dat is meer een kenmerk van die persoon, niet een rol die je zo kunt toewijzen.

L: Oké. Volgende punt is create mutual support amongst team members.

B: Wat bedoelde je met mutual support? Was me niet duidelijk.

L: Dat gaat puur over het stimuleren van elkaar, dus als iemand iets doet, de ander het daarmee eens is of in elk geval stimuleert wat de ander doet. Dat je binnen je team elkaar stimuleert en samen beter wordt in plaats van dat je elkaar bijvoorbeeld tegenwerkt om het zo maar te zeggen.

B: Ja, dat zou zeker handig zijn. Maar hoe creëer je zoiets, kun je zoiets überhaupt creëren? Ik vind het een beetje lastig, wat ik zei, ik denk dat bij veel van die dingen waar ik neutraal of niet duidelijk heb ingevuld, zijn dat dingen die toch sterk afhankelijk zijn van de personen die in zo'n team samenwerken en van de randvoorwaarden en de condities van zo'n samenwerking. Mutual support ja dat zou je misschien willen maar of dat ontstaat is nog maar de vraag.

L: Jet idee is dus dat je daar met je team aan gaat werken om ervoor te zorgen dat dat ontstaat. Dat was het idee van deze onderzoeker.

B: Ja maar wat ik zei, dat heb je ook in het verleden gezien, met die partnering he, er worden partnering agreements gesloten en daar staat dan ook in dat we alles gezamenlijk gaan doen en we hebben één doel en dat dan geprobeerd wordt aan het begin een soort ja, team, te vormen, met dezelfde waarden aan de slag gaat, maar dat zijn dingen die je dan ondertekent maar goed je moet toch in de praktijk kom je verschillende dingen tegen en dan zie je dat er andere belangen spelen en oude patronen naar boven komen.

L: U gelooft er dus niet helemaal in dat het echt op die manier kan gaan, ook al is die intentie er wel?

B: Ja, de intentie is natuurlijk goed. Maar uiteindelijk is dat iets wat door het proces ontstaat. Die waarde creëer je niet, die zijn er niet, die ontstaan doordat je samenwerkt. Dat is een proces die je kan faciliteren, maar het is heel sterk afhankelijk van de context en het project zelf en het vertrekpunt van zo'n project maar ook van de personen die daarin zitten. Daar is vast ook veel literatuur over hoe teams opereren en de invloed van de karakteristieken van de verschillende teamleden op het teamwerk, dat speelt ook een belangrijke rol. Wat ik misschien dan ook wel miste qua methode wat je nu ook ziet wat ze nu proberen bij langdurende samenwerkingsverbanden of contracten, dat ze ook grip proberen te krijgen op de mensen die erin zitten, door een soort team assessment, een beoordeling met wie we aan het samenwerken zijn en past dat dan? Dat de projectmanagers of wie er ook in zitten wel met elkaar kunnen. En dat moet je niet onderschatten, die persoonlijkheid van de mensen die erin zitten. Dan kun je wel faciliteren dat dat teamverband ontstaat.

L: Dat gedeelte ben ik inderdaad naar aan het kijken. Dat als dat team dan gevormd moet worden, dat je dan vanuit het management kunt faciliteren dat het één team wordt en dat dat goed gaat.

B: Ja, maar ik denk wel dat het ontstaat doordat je gezamenlijk aan iets werkt of betrokken bent bij een project of betrokken bent dat is een beetje die moeilijkheid hierin, want je wil een goede samenwerking maar die ontstaat pas doordat je met elkaar samenwerkt. Dus je moet met elkaar aan de slag en dan merk je hoe de anderen werken, hoe ze tegen dingen aankijken, daar moet je dan wel ter plekke in die context met elkaar op te lossen en conflicten te managen en je kunt natuurlijk wel met elkaar zorgen dat je van te voren duidelijk hebt wie er verantwoordelijk is voor wat en dat helpt natuurlijk om zo'n proces dan beter te laten verlopen. Maar uiteindelijk ontstaat dat samenwerkingsverband door het samenwerken.

L: U had bij best wel een aantal punten neutraal of statement unclear ingevuld, misschien kunnen we ze een beetje snel proberen door te nemen om te kijken of u ergens nog iets specifiek te benoemen heeft. Het volgende punt was define or identify joint goals, daar had u ook neutraal ingevuld.

B: Ja dat was weer dat punt van is dat per sé nodig. Het helpt als je zelf gezamenlijke doelen hebt, maar ik denk dat het niet per se nodig is. Dat je probeert dan alle dingen bij elkaar te brengen, je kunt ook accepteren dat iemand een andere doelstelling heeft, als het maar duidelijk is.

L: Oké. Het volgende punt was, converge on mutual conceptions of project alliancing or searching for knowledge or alliance principles or philosophy, daar heeft u statement unclear ingevuld.

B: Ja dat was voor mij een beetje abstract, dan vraag ik me af hoe je dat als methode ziet. Of als manier om die identiteit te vormen.

L: Het idee is dat je door dat te gaan onderzoeken met zijn allen dat je dan hetzelfde gaat denken met zijn allen over wat een projectalliantie inhoudt en hoe je daar mee om gaat.

B: Ja je zou dat natuurlijk aan het begin kunnen doen in de zin van wat voor beeld iedereen daarbij heeft, wat het is en hoe zij een projectalliantie zien om daar begrip voor te creëren. Of dat overeenkomt of dat er verschillen tussen zitten, dat zou kunnen aan het begin van een project.

L: Dus dat ze van elkaar weten dat ze er hetzelfde instaan, in wat ze in het project gaan doen.

B: Ja dat zou wel kunnen helpen denk ik. Als je zo een team gaat vormen aan het begin, als dat een begrip is die dan gebruikt wordt, dat daar wat meer met elkaar over wordt gesproken van wat verstaan we daar nu onder en wat betekent dat voor dit project dat we als alliantie gaan opereren.

L: Dan gaan we naar de volgende waarde, trust, dus vertrouwen. Daar had u bij het volgende puntje 'Setting out procedures as policy and guidance for identifying attributes of trust and trust building behaviours', statement unclear ingevuld.

B: Ja het was voor mij niet duidelijk van wat daarmee bedoeld is. Met guidance en wat dat betekent voor de vorm van vertrouwen. Wat daarmee bedoeld is. Het punt voor mij is ook een beetje hetzelfde zoals bij samenwerking, dat vertrouwen ontstaat door het samenwerken. Dus de vraag is of je dat met procedures vertrouwen kunt creëren, daar twijfel ik over. Je kunt natuurlijk bepaalde condities creëren die ertoe bijdragen, dat vertrouwen zou kunnen ontstaan, maar uiteindelijk is dat iets wat ook weer moet ontstaan door dingen met elkaar te doen, maar als je ziet dat iemand doet wat hij belooft en zich aan afspraken houdt dan ontstaat vertrouwen.

L: Het volgende punt is invest time into eachother, daar had u ook statement unclear ingevuld.

B: Ja het was voor mij niet duidelijk wat daarmee bedoeld is, invest time, met elkaar een uitje doen of meer team meeting of?

L: Dus u wil duidelijker weten waar dat precies om gaat? Het gaat puur over het investeren van tijd in elkaar om tot elkaar te komen om een team te worden en vertrouwen op te gaan bouwen. Dus eigenlijk voordat je gaat werken, dat je er tijd in stopt om een team te worden en elkaar te leren kennen. Dat was het idee van deze onderzoeker.

B: Ja, is niet onbelangrijk om ook daar wat meer tijd voor vrij te maken om zo'n team dan te laten ontstaan. Maar aan de andere kant zie je ook dat de tijd beperkt is maar ja, je kan natuurlijk wel ook bepaalde manieren vinden om buiten het werk om ook dingen te doen die bijdragen aan dat het team ontstaat, gezamenlijk succes hebben of als je een milestone hebt dat je dat wel samen viert. Er zijn meer manieren om zo'n team te vormen. Dus in die zin als dat ermee bedoeld is dan wel. Maar ik denk dat het wel belangrijk is, het is wel goed om bij sommige statements wat voorbeelden geven om te verduidelijken.

L: Dan ga ik daar even naar kijken. Bij het volgende punt ensuring that regulatory demands are met, heeft u ook statement unclear ingevuld.

B: Ja dat was voor mij ook niet duidelijk wat er bedoeld wordt met regulatory demands.

L: Dat gaat echt over de eisen, dus voorwaarden, die aan het project gesteld zijn. Dus dat je er met elkaar voor zorgt dat je daaraan voldoet.

B: Ja maar dat is een beetje vanzelfsprekend denk ik.

L: Dus u denkt niet dat dat een apart punt hoeft te zijn, omdat dat sowieso aanwezig is, dat iedereen dat doet?

B: Nou ja dat je dat wel als streven hebt, dat je dat doet. Dat dat niet altijd lukt is dan weer iets anders. Maar daar moet je wel aan voldoen.

L: Het volgende puntje: stimulate relationship preserving behaviour, heeft u neutraal ingevuld.

B: Dat was voor de waarde vertrouwen?

L: Ja.

B: Ja, ik weet niet meer precies wat mijn redenering was. Die term vond ik een beetje vreemd, relationship preserving behaviour. Zeg maar dat je een bepaalde relatie blijft houden, dat je probeert een goede relatie te houden, dat is zeker waardevol. Maar ja, ik vind het, in principe, is het zo'n beetje je wilt natuurlijk aan de ene kant vertrouwen creëren, maar dat is afhankelijk van jezelf dat je een bepaald gedrag vertoont, waardoor de ander jou kan vertrouwen, maar dat is misschien, voor mij was het, ja, een beetje vanzelfsprekend in die zin dat je toch zelf als je vertrouwen wilt zelf een bepaald gedrag vertoont.

L: Ok, we zin al best een tijdje bezig dus als u nog even tijd heeft kunnen we nog 3 puntjes doorspreken waar u statement unclear heeft ingevuld, want dat is voor mij heel waardevol om te weten wat er niet duidelijk was. Kan dat nog even?

B: Ja dat kan.

L: De volgende waarde was shared feeling of us, en daar was de werkmethode enacting informal practices to reinforce the shared feeling of "us", daar heeft u statement unclear ingevuld.

B: ja dat vond ik een beetje algemeen, enacting practices, wat is daar dan bedoeld? Dat is weer zo'n punt dat ik denk geeft dan een voorbeeld van wat je dan bedoelt.

L: In dit onderzoek werd als voorbeeld genoemd dat je alles moet vieren, datje moet zorgen dat alle teamleden blij blijven, dus bijvoorbeeld zoals u net zei dat als er een milestone is gehaald dat je dit viert met zijn allen, op een informele manier.

B: Ja, ok.

L: Was het duidelijker geweest als er dit voorbeeld bij had gestaan?

B: Ja, dat denk ik wel.

L: Ok, en de volgende was dan precies hetzelfde maar dan met formele practices: enacting formal practices to reinforce the shared feeling of "us". Daar geldt dan waarschijnlijk hetzelfde, dat u een voorbeeld miste?

B: Ja.

L: Ok. En dan de allerlaatste, bij shared commitment, focus on joint effort for improvement, heeft u ook statement unclear ingevuld.

B: Ja, dat ging over improvement, improvement of what? Veronderstel dat daar iets te verbeteren is, maar wat dan? Die samenwerking, of iets anders? Was voor mij niet duidelijk. Misschien ook een voorbeeld noemen.

L: Dan ga ik dat nog toevoegen. Dan denk ik dat we het hierbij laten, want op deze manier heb ik in elk geval wat nieuwe inzichten gekregen, dus heel erg bedankt voor uw tijd en voor het meewerken.

B: Wat zijn de vervolgstappen nu?

L: Ik ga nu verwerken wat ik in de interviews heb verzameld, ik heb afgelopen week ook nog een andere professor van de TU Delft gesproken, en dan ga ik vanaf volgende week onderzoek doen binnen twee projectallianties die op dit moment bezig zijn. Om echt in de praktijk te gaan kijken wat er nodig is voor de collaboratieve identiteit.

B: Ok. Nou, succes ermee. Wanneer ben je dan klaar?

L: Het doel is om in februari klaar te zijn.

B: Ok, deel je dan ook jouw resultaten van het onderzoek?

L: Dat zal ik zeker doen als u dat wil!

B: Ok, super. Dag!

L: Heel erg bedankt! Dag!

B.5: Explanation of changes to the list of working practices

In Table 30, an overview can be found of the changes that are made to the list of working practices, according to the scoping round with both experts. The working practices that were stated to be unimportant following the experts, have not been removed, because if this is the case, this should be verified by the experts within the Delphi study.

Table 30 Changes to the first list of working practices

Old working practice	Changed to	Reason
Prevent disputes	(Deleted)	Both experts stated that disputes are no problem and can even be positive, as long as they are being solved.
-	Solve disputes together	Both experts stated that disputes are no problem and can even be positive, as long as they are being solved.
Align goals	Align goals and identify joint goals	Statement was comparable with another. So the two are now combined.
Define/identify joint goals	Align goals and identify joint goals	Statement was comparable with another. So the two are now combined.
Involving all the parties in establishing project vision and goals	Involving all the parties (that are part of the alliance agreement) in establishing project vision and goals	Both experts stated that the term "parties" was not clear on who were meant by this.
Engaging collaborators for the project	Engaging collaborators for the project, that facilitate the collaboration	Meaning of this working practices was stated to be unclear by one of the experts.
Create a shared location for colleagues	Create a shared location for colleagues to work together on location	Provide more clarity on what is meant with the working practice.
Enacting informal practices to reinforce the shared feeling of "us"	Enacting informal practices to reinforce the shared feeling of "us" (examples of this may be celebrating milestones, make sure colleagues are and stay happy)	Was stated to be unclear by one of the experts, example needed to clarify statement.
Enacting formal practices to reinforce the shared feeling of "us"	Enacting formal practices to reinforce the shared feeling of "us" (an example of this may be joint feedback sessions, to make sure everyone participates and feels involved)	Was stated to be unclear by one of the experts, example needed to clarify statement.
Long-term orientation	Long-term orientation (for the duration of the project alliance)	It was stated to be unclear, because project alliances are not long term as other infrastructural projects such as DBFM's.
Make decisions together	(Deleted)	Same as "joint decision making".
-	Clear definition of roles and responsibilities (<i>not</i> as part of contract)	One of the experts stated that this should not be a part of the contract for this types of collaboration, but mainly based on trust. The other expert mentioned that the contract is important. Therefore, a distinction is made between "as part of the contract" and " <i>not</i> as part of the contract".
Clear coordination	Clear coordination by management	It was stated to be unclear where this coordination should be coming from.

C DELPHI STUDY

C.1: First questionnaire of the Delphi study

This appendix shows the full version of the first questionnaire of the Delphi study.

Beste deelnemer,

Bedankt voor uw medewerking aan mijn afstudeeronderzoek. Ik zal hier onder even kort toelichten wat ik onderzoek en wat er van u wordt verwacht.

Voor een succesvolle samenwerking binnen een alliantie is het van belang dat de alliantie medewerkers van alle partijen, naast de identiteit van de moederorganisatie, een nieuwe identiteit vormen samen met medewerkers van de andere betrokken partijen binnen de alliantie. Dit wordt ook wel de collaboratieve identiteit, collectieve identiteit of organisatie identiteit genoemd. De collaboratieve identiteit gaat over de waarden, werkmethoden en samenwerking die de identiteit van de alliantie vormen en die het project onderscheiden van andere projectorganisaties. Aangezien er nog maar weinig onderzoek is gedaan naar het vormen van deze collaboratieve identiteit en welke waarden en werkmethoden hiervoor nodig zouden zijn, wil ik dat voor mijn thesis graag gaan onderzoeken.

U bent gevraagd om mee te werken aan mijn onderzoek omdat u momenteel binnen een alliantie werkzaam bent en mij dus van waardevolle informatie kunt voorzien over de “echte wereld”, projectallianties in de praktijk. Dit wil ik onderzoeken door middel van twee soortgelijke vragenlijsten, waarvan dit de eerste is.

Het formulier bestaat uit vier onderdelen:

1. Algemene vragen over u en uw functie.
2. Uw mening: welke werkmethoden zijn volgens u belangrijk voor het vormen van collaboratieve identiteit? Er is geen goed of fout, u mag invullen hoe u hierover denkt.
3. De praktijk: welke werkmethoden zijn volgens u in uw huidige alliantie toegepast tijdens de planvormingsfase? Probeer goed te bedenken hoe dat vanuit uw perspectief is gegaan en probeer dit zo eerlijk mogelijk in te vullen.
4. Toevoegingen en op- of aanmerkingen indien u deze heeft.

De waarden beschrijven de beginselen waar de organisatie naar streeft, wat tot uiting komt door het uitvoeren van bijpassende werkmethoden. Om deze reden is de vragenlijst ingedeeld met werkmethoden per waarde waar zij aan bijdragen. Sommige werkmethoden komen terug bij verschillende waarden, dat is bewust gedaan omdat deze werkmethoden aan meerdere waarden kunnen bijdragen.

Het invullen van de vragenlijst neemt ongeveer 20 minuten in beslag. De deadline voor het invullen van de vragenlijst is 24 november om 17.00 uur. Ik raad u aan de vragenlijst in een keer geheel in te vullen.

Indien er iets niet helemaal duidelijk is, kunt u contact met mij opnemen via xxxxx@live.nl of als u snel antwoord nodig heeft (bijvoorbeeld terwijl u de enquête aan het invullen bent) kunt u mij via WhatsApp bereiken op 06xxxxxxx.

Alvast heel erg bedankt voor uw medewerking!

Chiara Ligthart

DEEL 1: ALGEMENE VRAGEN



Hierna volgen een aantal algemene vragen die mij zullen helpen bij het analyseren van de enquêtes.

Wat is uw naam? Deze zal niet in mijn verslag terugkomen, maar het geeft mij als onderzoeker wel inzicht in de verschillen in uw antwoorden tussen de eerste en de tweede enquête. Uw antwoorden blijven dus voor iedereen, behalve mij, anoniem. *

Korte antwoordtekst

Voor welke alliantie werkt u?

- Alliantie Markermeerdijken
- Graaf Reinald Alliantie

Wat is uw functie binnen de alliantie? *

- Alliantie Bestuur
- Alliantie Management
- Kernteamlid
- Projectteam medewerker
- Staf medewerker
- Anders...

Bij welke organisatie bent u in dienst? *

Korte antwoordtekst

DEEL 2: UW MENING



Dit gedeelte van de enquête vraagt u om per werkmethode aan te geven hoe belangrijk u deze vindt voor het vormen van collaboratieve identiteit. De waarde waaronder de werkmethode valt wordt steeds eerst genoemd, waarna alle werkmethode genoemd worden.

GELIJKHEID

Deze waarde gaat over hoe individuen elkaar zien in verhouding tot zichzelf, wanneer er gelijkheid is binnen een team is iedereen evenwaardig.

Zou u de volgende werkmethoden, passend bij de waarde "gelijkheid", willen scoren op
belangrijkheid voor het vormen van collaboratieve identiteit? *

	Totaal onbelan...	Onbelangrijk	Neutraal	Belangrijk	Zeer belangrijk
Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

TOLERANTIE

De waarde tolerantie gaat over verdraagzaamheid voor elkaar.

Zou u de volgende werkmethoden, passend bij de waarde "tolerantie", willen scoren op
belangrijkheid voor het vormen van collaboratieve identiteit? *

	Totaal onbelan...	Onbelangrijk	Neutraal	Belangrijk	Zeer belangrijk
Het samen oplo...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

...

EERLIJKHEID

Deze waarde gaat over hoe eerlijk of openhartig men naar elkaar toe is.

Zou u de volgende werkmethoden, passend bij de waarde "eerlijkheid", willen scoren op
belangrijkheid voor het vormen van collaboratieve identiteit? *

	Totaal onbelan...	Onbelangrijk	Neutraal	Belangrijk	Zeer belangrijk
Twijfels durven ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Doelen op één l...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Groepssolidariteit

Deze waarde beschrijft de saamhorigheid in de groep.

...

Zou u de volgende werkmethoden, passend bij de waarde "groepssolidariteit", willen scoren op
belangrijkheid voor het vormen van collaboratieve identiteit? *

	Totaal onbelan...	Onbelangrijk	Neutraal	Belangrijk	Zeer belangrijk
Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het betrekken v...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Een medewerke...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Doelen op één l...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Een gezamenlij...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

VERTROUWEN

Deze waarde gaat over het geloof in iemands goede trouw of eerlijkheid.

:::

Zou u de volgende werkmethode, passend bij de waarde "vertrouwen", willen scoren op *
belangrijkheid voor het vormen van collaboratieve identiteit?

	Totaal onbelan...	Onbelangrijk	Neutraal	Belangrijk	Zeer belangrijk
Het ontwikkele...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het uiteenzette...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tijd in elkaar in...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Verzekeren dat ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reflectie en zel...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

HET "WIJ-GEVOEL"

Deze waarde gaat over het gevoel bij elkaar te horen, over wat je als groep representeert en wat de groep anders maakt dan anderen. ▲
▼

:::

Zou u de volgende werkmethode, passend bij de waarde "het wij-gevoel", willen scoren op *
belangrijkheid voor het vormen van collaboratieve identiteit?

	Totaal onbelan...	Onbelangrijk	Neutraal	Belangrijk	Zeer belangrijk
Het plannen en ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het ontwikkele...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tijd in elkaar in...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het uitvoeren v...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het uitvoeren v...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Anders zijn dan...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het identificere...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Een gezamenlij...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(GEZAMENLIJKE) COMMITMENT

Deze waarde gaat over de gezamenlijke toewijding of overgave waarmee het project wordt aangegaan.

⋮

Zou u de volgende werkmethoden, passend bij de waarde "(gezamenlijke) commitment", willen scoren op belangrijkheid voor het vormen van collaboratieve identiteit? *

	Totaal onbelan...	Onbelangrijk	Neutraal	Belangrijk	Zeer belangrijk
Het betrekken v...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het focussen o...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zorgen voor top...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het hebben van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het gezamenlij...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Doelen op één l...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

TRANSPARANTIE / OPENHEID

Deze waarde gaat over de inzichtelijkheid die elkaar binnen het team wordt geboden, waarbij niks achter de hand wordt gehouden en alle informatie voor iedereen beschikbaar is.



Zou u de volgende werkmethoden, passend bij de waarde "transparantie / openheid", willen scoren op belangrijkheid voor het vormen van collaboratieve identiteit? *

	Totaal onbelan...	Onbelangrijk	Neutraal	Belangrijk	Zeer belangrijk
Het delen van i...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het delen van k...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het stimuleren ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

CONSENSUS / UNANIMITEIT

Deze waarde gaat over de overeenstemming van mening, over de eenstemmigheid of ook wel eensgezindheid in het team.

...

Zou u de volgende werkmethoden, passend bij de waarde "consensus / unanimiteit", willen scoren op belangrijkheid voor het vormen van collaboratieve identiteit? *

	Totaal onbelan...	Onbelangrijk	Neutraal	Belangrijk	Zeer belangrijk
Gezamenlijk risi...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gezamenlijk be...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gezamenlijk pr...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het definiëren v...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

BEST FOR PROJECT

Deze waarde gaat over het streven naar wat het beste is voor het project in zijn geheel, wat terug komt in acties en beslissingen van elk individueel.

...

Zou u de volgende werkmethoden, passend bij de waarde "best for project", willen scoren op belangrijkheid voor het vormen van collaboratieve identiteit? *

	Totaal onbelan...	Onbelangrijk	Neutraal	Belangrijk	Zeer belangrijk
Een duidelijke v...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Een duidelijke v...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het ontwikkele...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Een lange termi...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De focus op ee...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Duidelijke coör...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het gezamenlij...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Verzekeren dat ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reflectie en zel...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Positief zijn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

DEEL 3: DE PRAKTIJK



In het vorige deel heeft u ingevuld wat naar uw mening belangrijk is bij het vormen van collaboratieve identiteit. In dit gedeelte is het de bedoeling dat u terugdenkt aan de planvormingsfase van uw huidige alliantie, en aangeeft in hoeverre de werkmethode volgens u tijdens die fase is uitgevoerd.

Zou u kunnen aangeven in hoeverre u het eens bent met de volgende stelling: "Deze werkmethode is uitgevoerd tijdens de planvormingsfase van de huidige alliantie." *

	Helemaal mee ...	Mee oneens	Neutraal	Mee eens	Helemaal mee ...
Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het samen oplo...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Twijfels durven ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Doelen op één l...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het betrekken v...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Een medewerke...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Een gezamenlij...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het ontwikkele...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het uiteenzette...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tijd in elkaar in...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Verzekeren dat ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reflectie en zel...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het plannen en ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Het uitvoeren v...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het uitvoeren v...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het creëren van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Anders zijn dan...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het identificere...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De focus op ee...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zorgen voor top...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het hebben van...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het gezamenlij...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het delen van i...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het delen van k...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het stimuleren ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gezamenlijk risl...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gezamenlijk be...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gezamenlijk pr...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het definiëren v...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Een duidelijke v...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Een duidelijke v...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Duidelijke coör...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Positief zijn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

DEEL 4: TOEVOEGINGEN



U heeft nu alle werkmethode(n) op belangrijkheid ingedeeld en aangegeven in hoeverre de werkmethode(n) volgens u zijn uitgevoerd. Mochten er nog werkmethode(n) zijn die volgens u niet benoemd zijn, maar wel heel belangrijk om de collaboratieve identiteit te vormen, dan kunt u die hier benoemen. Zo niet, kunt u deze vraag overslaan en wil ik u bedanken voor uw medewerking!

Deze werkmethode(n) is/zijn volgens mij óók van belang:

Tekst lang antwoord

Heeft u nog andere op- of aanmerkingen over de door u ingevulde enquête? Indien nee, hoeft u deze vraag niet in te vullen.

Tekst lang antwoord

C.4: Elaboration on implications for round two

Positive line of answering

Due to the positive line of answering that is noted after round one, which does not provide enough insight in the order of the importance of working practices, prioritising of the working practices should be an element of the second questionnaire. This will be done by using the constant sum method. This method forces participants to choose which working practices they value of more importance than others, by allocating points to the working practices at the expense of others within the same category of collaborative value. This method is chosen over rank order methods, because it provides the weight of importance but keeps the possibility of scoring working practices equally important.

Including all working practices

Delphi is always aiming for consensus on the topic of interest. Therefore, some researchers do not take the topics to the next round if the previous round has already shown consensus. However, in compliance with what has been discussed in the previous section, more information is required on the importance of the working practices relative to each other. In order to make this comparison, all working practices are taken into the next round.

Adding average values

The idea within a Delphi study is that the following questionnaires are interspersed with feedback from the previous ones. Experts thus converge to consensus based on the answers of the group on the previous questionnaires. To stimulate this process, the average scores per working practice will be added to the second questionnaire, for both their own alliance and the other alliance. This is done because the main goal is consensus within each project alliance. By seeing the average score of their own alliance compared to the other, the working practices are placed into perspective, which might lead to more consensus within the project alliances.

Prioritising collaborative values

The goal is to define the most important working practices to form collaborative identity. The second questionnaire will provide the most important working practices per collaborative value, but no reliable information is known about the importance of the collaborative values themselves yet. The decision is therefore made to include an extra question in round two, asking the participants to prioritise the collaborative values by the constant sum method as well. By multiplying the scores for the working practices by the scores for the collaborative values, the working practices of the different collaborative values can be compared by their scores.

Distinction per expert group

The goal of the Delphi study is threefold, because the dataset was analysed on two different levels: the alliance level, including similarities and differences between them and the hierarchic level per expert group in comparison to each other. Therefore the question arose if the second questionnaire needed to be distinctive based on the expert group that the participant belongs to. However, the reason to look at the separate hierarchic levels as well, is to find differences or similarities between them. This can only be found if similar data is known for each of these levels. Besides, the expert groups per project alliance are in some cases as small as one person, leading to less reliable data to base the second questionnaire on, compared to data from the group as a whole.

The main goal of this research is to define the most important working practices for collaborative identity formation within the project alliance, not only within the separate expert groups. The assumption is that if the consensus increases within the project alliance, so does consensus within the expert groups. Therefore, the questionnaire of round two will not make a distinction per expert group, but will be similar for each participant.

C.5: The second questionnaire of the Delphi study

Enquête 2 - Het vormen van collaboratieve identiteit in projectallianties.

Beste deelnemer,

Voor u ziet u de tweede en laatste enquête van mijn afstudeeronderzoek. Ik wil u hierbij nogmaals bedanken voor het invullen van de vorige enquête en hoop van harte dat u ook voor deze enquête weer even tijd kunt maken om hem in te vullen. Zoals u al is opgevallen als u deze enquête heeft geopend, is deze in een iets ander format dan de vorige.

Het doel van deze enquête is om er achter te komen hoe belangrijk de werkmethode is *ten opzichte van elkaar*. Daarom wordt u per waarde gevraagd om een aantal punten over de werkmethode te verdelen. Scores mogen van 0 tot 20 gegeven worden, waarbij 0 totaal niet belangrijk gevonden wordt, 20 heel belangrijk en de rest een gradatie daartussenin. Het te verdelen aantal punten is zo gekozen, dat als u alles gelijk beoordeelt, alles maximaal neutraal (score 10) gewaardeerd kan worden. Een hogere score voor een belangrijke werkmethode, gaat daarom altijd ten koste van één of meerdere andere minder belangrijke werkmethoden. Ik wil u dus stimuleren om een keuze te maken in welke werkmethode er *belangrijker* zijn dan anderen. Voorbeeld: voor een score van 17 bij de ene werkmethode, zult u dus bij een ander een score van 3 moeten geven om op het juiste getal uit te komen. Om u te helpen bij uw keuze, is het gemiddelde van de vorige enquête benoemd bij elke werkmethode, zowel voor uw eigen als voor de andere participerende alliantie. U mag uw antwoord hier (deels) op baseren, maar dit is geen eis.

Aan de hand van de vorige enquête zijn er een aantal werkmethoden toegevoegd, die u kunt herkennen aan de toevoeging "*Nieuw!*". Het is de bedoeling dat u deze ook meeneemt in uw beoordeling.

Bij elke vraag ziet u ook de gemiddelde scores die tijdens de vorige enquêtes voor die werkmethoden gegeven zijn (ter herinnering: 1 = totaal onbelangrijk, 2 = onbelangrijk, 3 = neutraal, 4 = belangrijk, 5 = zeer belangrijk). Deze score ziet u van zowel uw eigen alliantie, als van de andere alliantie die mee werkt aan dit onderzoek. U mag deze gemiddelde scores meenemen in uw keuze tijdens deze enquête.

Hieronder in de afbeelding vindt u een voorbeeld van een vraag die u zo meteen gaat invullen. Ik wil u vragen deze goed te bestuderen voordat u de enquête begint. U kunt uw antwoord kwijt in de roze vakjes onder het kopje "punten". Onderaan de enquête vindt u een overzicht van alle vragen, als al deze vragen groen gekleurd zijn in het overzicht, heeft u alle vragen juist ingevuld en kunt u de enquête opslaan en naar mij opsturen.

De waarde waarover de vraag gaat.

GELIJKHEID

Verdeel 30 punten over de volgende werkmethode, passend bij de waarde "gelijkheid", op basis van belangrijkheid ten op zichte van elkaar.
 Als u het juiste aantal punten heeft verdeeld, kleurt het vakje onder "nog te verdelen punten" groen. Dan kunt u door naar de volgende

Werkmethode	Gemiddelde EIGEN alliantie	Gemiddelde ANDERE alliantie	Punten
Het creëren van wederzijds begrip			
Het creëren van onderlinge afhankelijkheid			
Nieuw! Het inventariseren van bestaande routines van alle partijen in de alliantie (om verschillen te erkennen en/of een goed startpunt te creëren)			
SOM			0

Hier aan herkent u een nieuw toegevoegde werkmethode.

Alle roze vakjes zijn antwoord vakjes, vul dus overall alléén iets in waar u deze kleur ziet. Als u het heeft ingevuld wordt dit licht groen.

Nog te verdelen punten

30

Dit geeft aan hoe veel punten u nog kunt verdelen over de werkmethode. Rood betekent dat nog niet alle punten verdeeld zijn. Het vakje kleurt groen als alles goed is verdeeld.

Het invullen van de vragenlijst neemt weer ongeveer 20 minuten in beslag. De deadline voor het invullen van de vragenlijst is maandag 14 december om 23.59 uur.

Indien er iets niet helemaal duidelijk is, kunt u contact met mij opnemen via xxxxxxxx@live.nl of als u snel antwoord nodig heeft (bijvoorbeeld terwijl u de enquête aan het invullen bent) kunt u mij via WhatsApp bereiken op 06xxxxxxx.

Alvast heel erg bedankt voor uw medewerking!

Chiara Ligthart

Uw antwoord:

Wat is uw naam?

DEEL 1: Het scoren van werkmethode op basis van belangrijkheid

GELIJKHEID

Verdeel 30 punten over de volgende werkmethode, passend bij de waarde "gelijkheid", op basis van belangrijkheid ten opzichte van elkaar. Wanneer het vakje onder "nog te verdelen punten" groen kleurt, kunt u door naar de volgende vraag.

Werkmethode	Gemiddelde EIGEN alliantie	Gemiddelde ANDERE alliantie	Punten	Nog te verdelen punten
Het creëren van wederzijds begrip	4,6	4,5		30
Het creëren van onderlinge afhankelijkheid	3,4	3,3		
Nieuw! Het inventariseren van bestaande routines van alle partijen in de alliantie (om verschillen te erkennen en/of een goed startpunt te creëren)				
SOM			0	

TOLERANTIE

Verdeel 20 punten over de volgende werkmethode, passend bij de waarde "tolerantie", op basis van belangrijkheid ten opzichte van elkaar. Wanneer het vakje onder "nog te verdelen punten" groen kleurt, kunt u door naar de volgende vraag.

Werkmethode	Gemiddelde EIGEN alliantie	Gemiddelde ANDERE alliantie	Punten	Nog te verdelen punten
Het samen oplossen van conflicten en onenigheid	4,4	4,4		20
Het creëren van een "no-blame" cultuur	4,4	4,3		
SOM			0	

EERLIJKHEID

Verdeel 30 punten over de volgende werkmethode, passend bij de waarde "eerlijkheid", op basis van belangrijkheid ten opzichte van elkaar. Wanneer het vakje onder "nog te verdelen punten" groen kleurt, kunt u door naar de volgende vraag.

Werkmethode	Gemiddelde EIGEN alliantie	Gemiddelde ANDERE alliantie	Punten	Nog te verdelen punten
Twijfels durven uiten over de (nieuwe) manier van werken	4,1	4,3		30
Doelen op één lijn brengen en het identificeren van gezamenlijke doelen	4,7	4,3		
Het creëren van een "no-blame" cultuur	4,1	4		
SOM			0	

GROEPSOLIDARITEIT

Verdeel 80 punten over de volgende werkmethode, passend bij de waarde "groepsolidariteit", op basis van belangrijkheid ten opzichte van elkaar. Wanneer het vakje onder "nog te verdelen punten" groen kleurt, kunt u door naar de volgende vraag.

Werkmethode	Gemiddelde EIGEN alliantie	Gemiddelde ANDERE alliantie	Punten	Nog te verdelen punten
Het creëren van een gedeelde visie	4,4	4,4		80
Het betrekken van alle partijen (die onderdeel zijn van de alliantie) in het bepalen van de projectvisie en -doelen	4,3	3,9		
Het creëren van wederzijds begrip	4,7	4,3		
Een medewerker aanstellen voor het project, die de samenwerking faciliteert	3,6	3,1		
Het creëren van wederzijdse ondersteuning tussen de teamleden/collega's	3,9	3,8		
Het creëren van een gezamenlijke aanpak voor het oplossen van problemen	3,7	3,9		
Doelen op één lijn brengen en het identificeren van gezamenlijke doelen	4,3	4,3		
Een gezamenlijke interpretatie over project allianties vormen door het zoeken naar kennis of alliantie principes en filosofie ("wie wij aan het worden zijn")	3,7	3,4		
SOM			0	

VERTROUWEN

Verdeel 50 punten over de volgende werkmethode, passend bij de waarde "vertrouwen", op basis van belangrijkheid ten op zichte van elkaar. Wanneer het vakje onder "nog te verdelen punten groen kleurt, kunt u door naar de volgende vraag.

Werkmethode	Gemiddelde EIGEN alliantie	Gemiddelde ANDERE alliantie	Punten	Nog te verdelen punten
Het ontwikkelen van belonings- en controlesystemen	2,7	2,6		50
Het uitzetten van procedures als beleid en om richting te geven aan het identificeren van attributen van vertrouwen en vertrouwen opbouwend gedrag	3	3		
Tijd in elkaar investeren	4,4	4,3		
Verzekeren dat regelgevende eisen worden behaald	4	3,3		
Reflectie en zelfevaluatie	4,5	3,9		
SOM			0	

HET "WIJ-GEVOEL"

Verdeel 100 punten over de volgende werkmethode, passend bij de waarde "het wij-gevoel", op basis van belangrijkheid ten op zichte van elkaar. Wanneer het vakje onder "nog te verdelen punten groen kleurt, kunt u door naar de volgende vraag.

Werkmethode	Gemiddelde EIGEN alliantie	Gemiddelde ANDERE alliantie	Punten	Nog te verdelen punten
Het plannen en behouden van face-to-face contact	4,5	4,4		100
Het creëren van een gezamenlijke locatie voor collega's om ter plekke samen te werken	4,8	4,4		
Het ontwikkelen van manieren om te werken met meerdere identiteiten	3,6	3,4		
Tijd in elkaar investeren	4,5	4,1		
Het uitvoeren van informele gebruiken om het "wij-gevoel" te stimuleren (voorbeelden hiervan kunnen zijn milestones vieren, zorgen dat de collega's blij zijn en blijven, maandelijke teamlunch)	4,3	4,1		
Het uitvoeren van formele gebruiken om het "wij-gevoel" te stimuleren (voorbeelden hiervan kunnen zijn het houden van gezamenlijke feedback sessies om ervoor te zorgen dat iedereen mee doet en zich betrokken voelt)	4,1	3,9		
Het creëren van gezamenlijke externe en visuele symbolen	3,3	3,6		
Anders zijn dan traditionele infrastructurele projecten	2,9	3,3		
Het identificeren van overeenkomsten (met andere projectallianties) met internationale voorbeelden	2,8	2,6		
Een gezamenlijke interpretatie over projectallianties vormen door het zoeken naar kennis of alliantie principes en filosofie ("wie wij aan het worden zijn")	3,3	3,1		
SOM			0	

(GEZAMENLIJKE) COMMITMENT

Verdeel 80 punten over de volgende werkmethode, passend bij de waarde "(gezamenlijke) commitment", op basis van belangrijkheid ten op zichte van elkaar. Wanneer het vakje onder "nog te verdelen punten groen kleurt, kunt u door naar de volgende vraag.

Werkmethode	Gemiddelde EIGEN alliantie	Gemiddelde ANDERE alliantie	Punten	Nog te verdelen punten
Het betrekken van alle partijen (die onderdeel zijn van de alliantie) in het bepalen van de projectvisie en -doelen	4,6	4,4		80
Het focussen op een gezamenlijke inspanning tot verbetering	4,3	4,3		
Zorgen voor top-management commitment	4,4	4,2		
Het hebben van een lange termijn focus (voor de volledige duur van de projectalliantie)	4,3	4,5		
Het gezamenlijk creëren van routines	3,6	3,6		
Doelen op één lijn brengen en het identificeren van gezamenlijke doelen	4,5	4,2		
Het creëren van een gezamenlijke visie	4,4	4,4		
Nieuw!: Actieve projectsturing op de vooraf gezamenlijk bepaalde koers				
SOM			0	

TRANSPARANTIE / OPENHEID

Verdeel 40 punten over de volgende werkmethode, passend bij de waarde "transparantie/openheid", op basis van belangrijkheid ten op zichte van elkaar. Wanneer het vakje onder "nog te verdelen punten groen kleurt, kunt u door naar de volgende vraag.

Werkmethode	Gemiddelde EIGEN alliantie	Gemiddelde ANDERE alliantie	Punten	Nog te verdelen punten
Het delen van informatie en resources	4,3	4,3		40
Het delen van kennis	4,5	4,4		
Het stimuleren van transparante, open en frequente communicatie	4,6	4,4		
Nieuw!: Het erkennen van het verschil tussen het belang van het project en het belang van de moederorganisatie en deze respecteren				
SOM			0	

CONSENSUS / UNANIMITEIT

Verdeel 60 punten over de volgende werkmethode, passend bij de waarde "consensus/unaniniteit", op basis van belangrijkheid ten op zichte van elkaar. Wanneer het vakje onder "nog te verdelen punten groen kleurt, kunt u door naar de volgende vraag.

Werkmethode	Gemiddelde EIGEN alliantie	Gemiddelde ANDERE alliantie	Punten	Nog te verdelen punten
Gezamenlijk risico-management	4,4	3,9		60
Gezamenlijk beslissingen maken	4,4	3,9		
Gezamenlijk problemen oplossen	4,3	4		
Het definiëren van initiële randvoorwaarden en identiteitsclaims voor het project	3,9	3,6		
Het creëren van een gezamenlijke aanpak voor het oplossen van problemen	4,1	3,8		
Nieuw!: Actieve projectsturing op de vooraf gezamenlijk bepaalde koers				
SOM			0	

BEST FOR PROJECT

Verdeel 120 punten over de volgende werkmethode, passend bij de waarde "best for project", op basis van belangrijkheid ten op zichte van elkaar. Wanneer het vakje onder "nog te verdelen punten groen kleurt, kunt u door naar de volgende vraag.

Werkmethode	Gemiddelde EIGEN alliantie	Gemiddelde ANDERE alliantie	Punten	Nog te verdelen punten	
Een duidelijke verdeling van de rollen en verantwoordelijkheden (als onderdeel van het contract)	4,1	4,3		120	
Een duidelijke verdeling van de rollen en verantwoordelijkheden (specifiek niet als onderdeel van het contract)	4,3	3,9			
Het ontwikkelen van manieren om samen te werken met meerdere identiteiten	3,9	3,5			
Het hebben van een lange termijn focus (voor de volledige duur van de projectalliantie)	4,3	4,3			
De focus op een gezamenlijke inspanning tot verbetering	4,2	3,9			
Duidelijke coördinatie vanuit het management	4,3	4,3			
Het gezamenlijk creëren van routines	3,6	3,6			
Verzekeren dat regelgevende eisen worden behaald	3,9	3,6			
Reflectie en zelfevaluatie	4,3	3,9			
Positief zijn	4,3	4,3			
Nieuw!: Het inventariseren van bestaande routines van alle partijen in de alliantie (om verschillen te erkennen en/of een goed startpunt te creëren)					
Nieuw!: Het tijdig(er) uitdenken en plannen van de volgende fasen					
SOM			0		

DEEL 2: Het scoren van waarden op basis van belangrijkheid

Waarden

In dit gedeelte gaat het om de *waarden* die belangrijk zijn voor het vormen van collaboratieve identiteit. De genoemde gemiddelden zijn berekend aan de hand van de weging van de werkmethode per waarde uit de vorige enquête.

Verdeel 100 punten over de volgende waarden, op basis van belangrijkheid ten op zichte van elkaar. Wanneer het vakje onder "nog te verdelen punten groen kleurt, kunt u door naar de volgende vraag.

Werkmethode	Gemiddelde EIGEN alliantie	Gemiddelde ANDERE alliantie	Punten	Nog te verdelen punten
Gelijkheid	4	3,9		100
Tolerantie	4,4	4,3		
Eerlijkheid	4,3	4,2		
Groepsolidariteit	4,6	3,8		
Vertrouwen	3,7	3,4		
Het "wij-gevoel"	3,8	3,7		
(Gezamenlijke) commitment	4,3	4,2		
Transparantie/openheid	4,5	4,4		
Consensus/unanimiteit	4,2	3,9		
Best for project	4,1	4		
SOM			0	

DEEL 3: De praktijk (aanvulling op enquête 1)

In dit gedeelte wil ik u, net als in de eerste enquête, vragen om aan te geven in hoeverre u vindt dat de genoemde werkmethode is toegepast in de planvormingsfase van uw alliantie. Dit gaat alleen over de nieuw toegevoegde werkmethode.

U kunt de vraag invullen door op het antwoord vakje te klikken, dan ziet u in de rechter onderhoek een grijs pijltje verschijnen, met een drop-down menu als u daarop klikt. De stelling is: "Deze werkmethode is uitgevoerd tijdens de planvormingsfase van de huidige alliantie."

Waarde en werkmethode	.	..	Antwoord
Gelijkheid: Het inventariseren van bestaande routines van alle partijen in de alliantie (om verschillen te erkennen en/of een goed startpunt te creëren)	n.v.t.	n.v.t.	
Gezamenlijke commitment: Actieve projectsturing op de vooraf gezamenlijk bepaalde koers	n.v.t.	n.v.t.	
Transparantie/openheid: Het erkennen van het verschil tussen het belang van het project en het belang van de moederorganisatie en deze respecteren.	n.v.t.	n.v.t.	
Consensus/unanimiteit: Actieve projectsturing op de vooraf gezamenlijk bepaalde koers	n.v.t.	n.v.t.	
Best for project: Het inventariseren van bestaande routines van alle partijen in de alliantie (om verschillen te erkennen en/of een goed startpunt te creëren)	n.v.t.	n.v.t.	
Best for project: Het tijdig(er) uitdenken en plannen van de volgende fasen	n.v.t.	n.v.t.	

DEEL 4: Afsluiting

Als afsluiting van de beide enquêtes wil ik u nog een laatste vraag stellen. Deze vraag kunt u ook weer invullen door middel van het drop-down menu in het antwoord vak.

Hierna kunt u in het overzicht controleren of u alle vragen juist heeft ingevuld, door te controleren of alle vragen in het overzicht groen gekleurd zijn.

Vraag	.	..	Antwoord
Identificeert u zich op dit moment met de alliantie?	n.v.t.	n.v.t.	

Controle	
Waarde	Te verdelen punten / compleetheid
Naam ingevuld	0
Gelijkheid	30
Tolerantie	20
Eerlijkheid	30
Groepssolidariteit	80
Vertrouwen	50
Het "wij-gevoel"	100
(Gezamenlijke) commitment	80
Transparantie/openheid	40
Consensus/unanimiteit	60
Best for project	120
Deel 2: Waarden	100
Deel 3: de praktijk	niet compleet
Deel 4: Afsluiting	niet compleet

U heeft nog een vraag niet compleet ingevoerd, verdeel uw punten en vul de vragen in zo dat alles groen is

C.7: Collaborative value scores (round two)

Table 34 shows the scores for the collaborative values after round two, first for the GRalliantie and then for the MMKD. The question if they feel part of the alliance organisation is added to the right.

Table 34 The scores for the collaborative values of the GRalliantie and the MMKD

Collaborative values GR														
Res. #	Function	Organisation	A	B	C	D	E	F	G	H	I	J	Avg.	Do you feel part of the alliance organisation?
05	Board	GMB Civiël	10	10	10	10	10	10	10	10	10	10	10	Yes
01	Management	Independant	5	5	15	0	10	5	15	15	15	15	10	Yes
06	Team Lead	Waterschap Rivierenland	5	5	20	10	10	5	5	10	20	10	10	Yes
07	Team Lead	De Vries & van de Wiel	10	10	10	5	10	5	15	15	10	10	10	Yes
10	Team Lead	Independant	8	8	15	8	20	8	8	15	7	3	10	Yes
03	Team Member	Independant	10	10	12	8	8	12	10	10	8	12	10	Yes
02	Team Member	De Vries & van de Wiel	5	5	10	5	15	10	15	10	5	20	10	Yes
09	Team Member	Independant	2	7	15	18	18	15	0	20	2	3	10	Yes
08	Team Member	Heijmans	20	5	10	5	20	5	5	20	5	5	10	Yes
13	Team Member	De Vries & van de Wiel	10	10	15	10	0	10	15	15	0	15	10	Yes
		Average	8,5	7,5	13,2	7,9	12,1	8,5	9,8	14,0	8,2	10,3		
		Standard deviation	4,9	2,4	3,4	4,7	6,2	3,5	5,3	3,9	6,0	5,5		
Collaborative values MMKD														
Res. #	Function	Organisation	A	B	C	D	E	F	G	H	I	J	Avg.	Do you feel part of the alliance organisation?
26	Board	Boskalis	10	10	10	10	10	10	10	10	10	10	10	Yes
19	Management	KWS Infra	0	10	20	0	10	0	15	20	5	20	10	Yes
20	Management	Boskalis	5	10	15	10	15	10	10	10	5	10	10	Yes
23	Management	HHNK	10	0	20	0	20	20	0	10	0	20	10	Yes
28	Staff	HHNK	5	5	10	15	5	5	10	15	10	20	10	Yes
17	Team Lead	Boskalis	15	10	10	15	10	10	10	5	10	5	10	Yes
27	Team Lead	Van Hattum en Blankevoort	5	10	5	5	20	20	20	5	5	5	10	A little bit
21	Team Member	Volker Wessels	5	5	15	5	15	10	10	10	5	20	10	Yes
22	Team Member	Arcadis	8	9	11	12	11	10	12	10	12	5	10	A little bit
24	Team Member	HHNK	10	9	12	11	12	10	8	11	8	9	10	Yes
29	Team Member	Boskalis	8	10	12	10	13	9	10	9	7	12	10	Yes
		Average	7,4	8,0	12,7	8,5	12,8	10,4	10,5	10,5	7,0	12,4		
		Standard deviation	4,0	3,3	4,5	5,3	4,5	5,7	4,8	4,2	3,4	6,5		

C.8: Ordered list of end scores GRalliantie & MMKD (round two)

Table 35 shows the ordered list of the end scores for the GRalliantie after round two. The list is ordered from high to low, so the most important working practices are shown first. Table 36 shows the ordered list of the end scores for the GRalliantie after round two.

Table 35 Ordered list of end scores of the GRalliantie

Code	Avg. CV	Avg. WP	Total
E3	12,1	17,7	745,0
E5	12,1	14,7	618,7
H3	14,0	11,2	586,7
H1	14,0	10,8	565,7
C2	13,2	11,7	561,1
J2	10,3	16,0	528,9
H2	14,0	9,6	502,9
C1	13,2	9,8	470,0
J12	10,3	13,8	456,2
F2	8,5	18,2	451,0
H4	14,0	8,4	440,0
A1	8,5	17,0	421,3
F4	8,5	17,0	421,3
C3	13,2	8,5	407,6
J4	10,3	12,3	406,6
G3	9,8	13,2	405,0
F1	8,5	16,3	403,9
J1	10,3	12,2	403,3
G1	9,8	12,7	389,6
G4	9,8	11,2	343,6
E4	12,1	8,1	340,9
D1	7,9	15,0	333,1
D2	7,9	15,0	333,1
J5	10,3	10,0	330,6
D3	7,9	14,5	322,0
J10	10,3	9,7	320,6
G2	9,8	10,2	312,9
F5	8,5	12,3	304,8
J6	10,3	9,2	304,1
I6	8,2	12,8	300,6
J3	10,3	9,0	297,5
I2	8,2	12,4	291,2
J9	10,3	8,8	290,9
G8	9,8	9,1	279,2
I1	8,2	11,2	263,0
G6	9,8	8,5	260,8
J11	10,3	7,8	257,8
G7	9,8	8,1	248,5
I3	8,2	10,5	246,6
D7	7,9	10,7	237,6
F6	8,5	9,3	230,5
G5	9,8	7,0	214,8
B1	7,5	10,3	211,6
D5	7,9	9,2	204,3
B2	7,5	9,7	199,2
A3	8,5	7,6	188,3
I5	8,2	8,0	187,8
F3	8,5	7,5	185,9
J7	10,3	5,6	185,1
F7	8,5	6,4	158,6
F10	8,5	6,0	148,7
A2	8,5	5,4	133,8
D6	7,9	5,7	126,6
D4	7,9	4,7	104,4

Table 36 Ordered list of end scored MMKD

Code	Avg. CV	Avg. WP	Total
E3	12,8	16,2	741,0
J1	12,4	13,5	587,5
E5	12,8	12,6	578,7
C2	12,7	12,7	576,0
J6	12,4	12,7	555,7
J10	12,4	12,3	535,9
F2	10,4	15,6	524,4
F4	10,4	15,4	515,3
J4	12,4	11,3	492,2
J12	12,4	11,0	480,3
F1	10,4	14,2	475,6
F5	10,4	13,6	457,3
J2	12,4	10,1	440,6
E4	12,8	9,5	437,1
G1	10,5	12,6	429,9
C1	12,7	9,5	427,9
J9	12,4	9,5	416,8
H2	10,5	11,8	402,1
H1	10,5	11,7	399,0
D1	8,5	15,7	389,7
G3	10,5	11,4	386,6
J5	12,4	8,8	385,0
G6	10,5	11,3	383,5
G7	10,5	10,7	365,0
C3	12,7	7,8	353,8
J11	12,4	8,1	353,3
G4	10,5	10,3	349,5
J7	12,4	7,9	345,3
F6	10,4	10,3	344,5
J3	12,4	7,6	333,4
J8	12,4	7,2	314,4
H4	10,5	9,2	312,4
F7	10,4	9,3	311,0
G2	10,5	8,9	303,1
D7	8,5	11,7	290,6
A1	7,4	13,7	276,3
D3	8,5	10,8	268,1
G5	10,5	7,5	256,7
D2	8,5	10,2	252,3
G8	10,5	7,3	247,4
H3	10,5	7,3	247,4
I3	7,0	13,0	240,8
I2	7,0	12,9	239,1
B1	8,0	10,4	234,5
F10	10,4	6,9	231,4
D6	8,5	9,3	229,8
B2	8,0	9,6	218,0
A3	7,4	10,0	201,3
I1	7,0	10,6	197,0
I6	7,0	10,6	197,0
D5	8,5	7,5	187,0
D4	8,5	7,2	178,0
A2	7,4	6,3	126,3
I5	7,0	6,3	116,2

C.9: Differences top ten end scores round one and two GRalliantie & MMKD

Table 37 shows the differences between the top ten most important working practices for the GRalliantie, based on the end scores. The arrows show the similarities between both top ten's.

Table 37 Differences of end scores between round one and two GRalliantie

Rank	Round one		Round two
1	H3	←	E3
2	H2	←	E5
3	H1	←	H3
4	C2	←	H1
5	C1	←	C2
6	C3	←	J2
7	E5	←	H2
8	E3	←	C1
9	E4		J12
10	J10		F2

Table 38 shows the differences between the top ten most important working practices for the MMKD, based on the end scores. The arrows show the similarities between both top ten's.

Table 38 Differences of end scores between round one and two Markermeerdijken

Rank	Round one		Round two
1	C1	←	E3
2	C2	←	J1
3	E3	←	E5
4	J4	←	C2
5	J10	←	J6
6	J1	←	J10
7	J6	←	F2
8	C3	←	F4
9	E5	←	J4
10	J2		J12
11	J5		F1

C.10: Comparison of the expert groups

GR expert groups		A1	A2	A3	B1	B2	C1	C2	C3	D1	D2	D3	D4	D5	D6	D7	E3	E4	E5	F1	F2	F3	F4	F5	F6	F7	F10	G1	G2	G3	G4	G5	G6	G7	G8	H1	H2	H3	H4	I1	I2	I3	I5	I6	J1	J2	J3	J4	J5	J6	J7	J9	J10	J11	J12	
Expert group	Group size	A1	A2	A3	B1	B2	C1	C2	C3	D1	D2	D3	D4	D5	D6	D7	E3	E4	E5	F1	F2	F3	F4	F5	F6	F7	F10	G1	G2	G3	G4	G5	G6	G7	G8	H1	H2	H3	H4	I1	I2	I3	I5	I6	J1	J2	J3	J4	J5	J6	J7	J9	J10	J11	J12	
Board	1	15,0	5,0	10,0	15,0	5,0	10,0	10,0	10,0	20,0	20,0	10,0	5,0	5,0	5,0	10,0	20,0	10,0	10,0	15,0	15,0	5,0	15,0	15,0	15,0	5,0	5,0	15,0	10,0	10,0	12,0	5,0	10,0	10,0	8,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	13,0	10,0	15,0	10,0	10,0	8,0	10,0	10,0	8,0	8,0
Management	1	20,0	5,0	5,0	10,0	10,0	5,0	15,0	10,0	20,0	20,0	15,0	5,0	5,0	5,0	10,0	20,0	5,0	20,0	20,0	20,0	10,0	15,0	10,0	10,0	5,0	5,0	15,0	15,0	15,0	10,0	5,0	5,0	10,0	5,0	5,0	15,0	10,0	10,0	15,0	10,0	15,0	15,0	5,0	10,0	15,0	15,0	10,0	15,0	10,0	5,0	5,0	10,0	5,0	10,0	
Team Lead	3	18,3	8,3	3,3	9,3	10,7	14,0	9,0	7,0	11,7	13,3	15,0	3,3	10,0	6,7	13,3	16,7	11,7	13,3	20,0	20,0	3,3	18,3	11,7	6,7	8,3	5,0	6,7	13,3	13,3	13,3	5,0	13,3	6,7	8,3	13,3	10,0	10,0	6,7	6,7	15,0	8,3	13,3	13,3	13,3	18,3	10,0	15,0	13,3	5,0	3,3	10,0	6,7	5,0	15,0	
Team Member	5	16,0	3,8	10,2	10,0	10,0	8,2	13,0	8,8	15,0	14,0	15,0	5,4	10,4	5,4	9,4	17,4	6,2	15,4	13,6	17,4	10,0	17,0	12,6	9,6	5,8	7,0	15,4	7,4	13,4	10,0	9,0	6,0	8,2	10,6	10,6	8,2	12,4	8,8	13,4	11,8	11,0	5,0	13,6	11,4	15,4	8,0	9,6	7,0	11,4	6,6	8,6	11,4	10,0	15,0	
Biggest difference between groups	n.a.	5,0	4,5	6,9	5,7	5,7	9,0	6,0	3,0	8,3	6,7	5,0	2,1	5,4	1,7	3,9	3,3	6,7	10,0	6,4	5,0	6,7	3,3	5,0	8,3	3,3	2,0	8,7	7,6	5,0	3,3	4,0	8,3	3,3	5,6	8,3	6,8	2,4	3,3	8,3	5,0	6,7	8,3	3,6	5,0	5,3	2,0	5,4	8,0	6,4	4,7	5,0	4,7	5,0	7,0	
MMKD																																																								
Expert group	Group size	A1	A2	A3	B1	B2	C1	C2	C3	D1	D2	D3	D4	D5	D6	D7	E3	E4	E5	F1	F2	F3	F4	F5	F6	F7	F10	G1	G2	G3	G4	G5	G6	G7	G8	H1	H2	H3	H4	I1	I2	I3	I5	I6	J1	J2	J3	J4	J5	J6	J7	J9	J10	J11	J12	
Board	1	12,0	6,0	12,0	10,0	10,0	8,0	14,0	8,0	20,0	10,0	15,0	6,0	7,0	7,0	10,0	15,0	15,0	15,0	18,0	18,0	6,0	16,0	10,0	10,0	6,0	7,0	12,0	10,0	9,0	12,0	6,0	9,0	10,0	12,0	10,0	10,0	10,0	10,0	12,0	12,0	12,0	6,0	12,0	12,0	8,0	7,0	12,0	11,0	12,0	7,0	7,0	11,0	10,0	12,0	
Management	3	18,3	6,7	5,0	9,3	10,7	6,7	15,0	8,3	16,7	15,0	15,0	3,3	1,7	8,3	15,0	18,3	8,3	15,0	13,3	18,3	6,7	18,3	15,0	8,3	11,7	5,0	12,3	4,3	15,0	13,3	1,7	15,7	12,7	5,0	9,3	11,7	9,0	10,0	11,7	16,7	13,3	3,3	13,3	13,3	11,7	10,0	15,0	5,0	16,7	3,3	5,0	13,3	6,7	11,7	
Team Lead	2	11,0	6,5	12,5	11,0	9,0	8,5	16,0	5,5	17,5	5,0	7,5	15,0	12,5	5,0	10,0	17,5	7,5	12,5	17,5	15,0	2,5	17,5	12,5	10,0	10,0	7,5	15,0	12,5	10,0	2,5	15,0	12,5	10,0	2,5	15,0	15,0	2,5	7,5	12,5	12,5	15,0	5,0	7,5	15,0	5,0	5,0	5,0	12,5	12,5	12,5	5,0	15,0	7,5	12,5	
Team Member	4	14,3	6,3	9,5	11,0	9,0	9,8	11,0	9,3	12,0	9,3	9,8	8,0	10,3	10,0	11,0	13,3	10,0	11,0	10,8	12,3	8,3	12,0	12,5	9,5	10,0	9,5	10,0	10,0	10,3	11,5	9,3	9,5	10,0	9,5	10,3	11,3	9,5	9,0	8,8	10,0	11,5	9,5	10,0	11,5	9,5	9,0	11,8	10,3	10,8	8,8	9,3	11,0	9,3	10,5	
Staff	1	5,0	5,0	20,0	10,0	10,0	20,0	5,0	5,0	20,0	10,0	5,0	1,0	5,0	20,0	10,0	20,0	10,0	10,0	20,0	20,0	1,0	15,0	20,0	20,0	1,0	1,0	20,0	10,0	10,0	10,0	5,0	5,0	10,0	10,0	20,0	10,0	0,0	10,0	10,0	15,0	15,0	5,0	10,0	20,0	20,0	1,0	10,0	5,0	10,0	10,0	10,0	10,0	7,0	7,0	
Biggest difference between groups	n.a.	13,3	1,7	15,0	1,7	1,7	13,3	11,0	4,3	8,0	10,0	10,0	14,0	10,8	15,0	5,0	6,8	7,5	5,0	9,3	7,8	7,3	6,3	10,0	11,7	10,7	8,5	10,0	8,2	6,0	10,8	13,3	10,7	2,7	9,5	10,7	5,0	10,0	2,5	3,8	6,7	3,5	6,2	5,8	8,5	15,0	9,0	10,0	7,5	6,7	9,2	5,0	5,0	3,3	5,5	