CONTROL OF CLIENT-CONTRACTOR COOPERATION IN MUNICIPAL BEST-VALUE PROJECTS

A MULTIPLE CASE STUDY

MSc thesis report

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Stadswerk

UNIVERSITY OF TWENTE.

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Abstract

Dutch municipalities are changing their public procurement practice. Where traditional design, bid, build contracts used to be the standard, integrated project delivery methods become more wide-spread amongst lower governmental organizations. In the search for new procurement methods by municipalities, Best-Value is named as a promising method for integrated construction projects and renewed cooperation between client and contractor. In Best-value procurement, the contractor is seen as expert who knows how to handle and solve the problem of the principal. The principal is therefore required to 'let go' and trust the contractor on his expertise and let the contractor take the lead. The principal sets a maximum budget and tries to find the contractor who can solve the problem and delivers the highest value with the most certainty in terms of costs, time and quality. The method assumes the contractor knows best how to solve the problem and therefore aims at giving maximum freedom to the contractor to enable him to do so.

This study identifies how best-value changes the cooperation between principal and contractor in Dutch municipal construction projects. To do that, the study focusses on control, trust and risk perception as described in the framework for interorganizational cooperation. In a multiple case-study, three municipal construction projects are studied to see how a best-value project can work in practice and how parties cooperated in these projects.

Interorganizational cooperation is explained by Das & Teng (2001) using their model containing underlying aspects of control, trust and risk perception (see Figure 1). Using this model, the influence of different forms of control on trust and control on risk perception can be seen. This allows explanation of how forms of control influenced the cooperation between client and contractor. Literature shows that best-value adds informal modes of control to the more traditional set of formal control modes used in traditional and standard integrated project approaches. This informal control by itself allows less formal control to be in place as risk perception lowers and levels of trust rise. Furthermore, the used forms of formal control focus on risk-based information sharing and the contractual control modes in general are a product of agreement between client and contractor. To do so, best-value projects include a phase without contractual base where contractor and client work together on the contract and risk dossier. Instead of a classical contract describing the desired product in detail, a more general contract is drawn-up based on the project goals and the risk dossier aiming at arranging the cooperation between the parties.

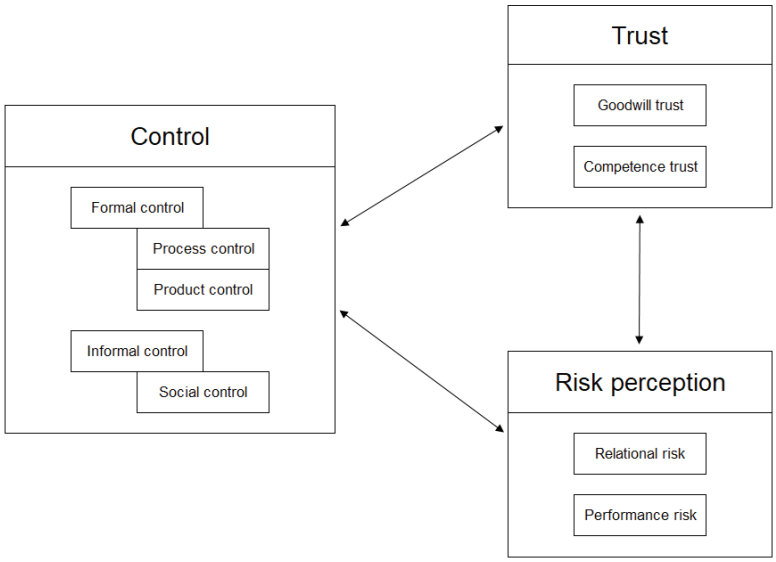

Figure 1: The model of interorganizational cooperation by Das & Teng

Three construction projects were studied to see how Best-Value changes control and cooperation in practice and what the results are. In all cases, the used method enabled informal control in the projects. The procurement-phase lowered the perception of risks while levels of trust increased. This

resulted in less formal control and the space for informal control to grow, which allowed dealing with unforeseen circumstances in cooperation between client and contractor. However, when unforeseen circumstances arose parties were seen to be inclined to revert to more traditional forms of formal control, indicating a lack of trust in the other party. Overall, informal forms of control showed to have a positive effect on the interorganizational cooperation. Formal forms of control can have a negative effect on interorganizational cooperation but don't necessarily do so.

Contents

1 Introduction

Dutch municipalities are changing their public procurement practice. Where traditional design, bid, build contracts used to be the standard, integrated project delivery methods become more wide-spread amongst lower governmental organizations. In line with changes on-going on national levels. Several factors contributed to this change. Amongst others: generally bad performance in construction projects, the changed paradigm from awarding a contract based on lowest price to most economically advantageous tender (MEAT), the changing government towards network governance and the ask for cooperation.

There's a public discontent with the performances of the construction industry for years. Lots of projects are known for overruns in terms of budget and time. Furthermore, the sector is marked as conservative and not-innovative. Because of this, multiple initiatives tried to change the sector in the past. Examples in the nineties are the Construction Task Force which produced the 'Egan Report' *Rethinking Construction* (Egan, 1998) in the United Kingdom and the 'Verkenningscommissie Bouw' [Dutch exploratory committee for the construction industry] in the Netherlands. These initiatives started a change in the industry towards more integrated delivery methods and the shift of focus from awarding on lowest price towards a system that takes quality into account (Dorée, 2001). Awarding on lowest price led to fierce competition in which price had to compete with quality, safety and integrity (Dorée, 2004). This eventually played an important factor for the collusion in the Dutch construction industry that came to light in 2001 (van Waarden, 2003; Dorée, 2004).

The calls from the committees in the nineties and the fact-finding committee that investigated the collusion led to the instalment of the 'Regieraad Bouw' with the task to change the sector and make it 'healthy, transparent and innovative' again (Regieraad Bouw, 2006). This board concluded that the used procurement practice was of great influence on the functioning of the sector and advised that the government had to start procuring more professionally. Meaning, the right project delivery method for the right project, to balance the interest of all involved parties.

In the first decade of the 21st-century Dutch governmental organizations started to experiment with different integrated project delivery methods and awarding projects based on MEAT (Most Economically Advantageous Tender) to assess both price and quality of the bids. With the 'Aanbestedingswet 2012' [public procurement act 2012] all public procuring organizations are obliged to award their projects based on MEAT, unless they can motivate deviation from the rule (Ministerie van Economische Zaken, 2013). Before this act, small and medium sized municipalities mainly used traditional procurement and delivery methods in their construction project (Aanbestedingsinstituut, 2014). With this act, they were pushed to change their practice.

1.1 Changing Governance

Government and governance mode is changing. More and more municipalities apply network-, multistakeholder- and collaborative modes of governance. In these modes, governance takes place based on collaboration with stakeholders instead of based on hierarchy. Reason behind this change is, amongst others, the decentralisation of government responsibilities towards municipalities. These decentralisations aim at creating a more efficient government. The idea is that municipalities know specific needs of citizens, so efficient tailor-made policy can be made, targeting local needs. Often, these acts of decentralisation go hand in hand with budgets cuts (Dölle & Elzinga, 2004). Responsibilities of

municipalities become wider and more complex. Also regarding construction projects, the complexity, uncertainty and time pressure increases. The field of action includes multiple stakeholders, all with their own targets and interests. Projects require a more integrated approach so these targets and interest can be fit in (Beurskens & Korsten, 2007) and traditional governance forms and procurement methods cannot stand (Dubois & Gadde, 2000; Eriksson & Westerberg, 2010). Stakeholder management, citizen participation, outsourcing, integrated contracting and public-private collaborations are ways of fulfilling these modern requirements.

1.2 Defining cooperation

'Cooperation', 'collaboration', 'co-creation', and 'partnering' are some of the terms often used as the way to improve performance of the construction sector and as answer to changing procurement and governance paradigms. "Co-creation is the future" (Dronkers, 2013) said Rijkswaterstaat's director-general Dronkers. For the Dutch leading principal in infrastructure, cooperation must result in "cost reduction, growth, increased employment, sustainability and safety" (Dronkers, 2013). This vision was further made concrete in the Marktvisie 2016, a set of visions and goals shared by principals and contractors in the sector. This Marktvisie follows various declarations of intent, gentlemen's agreements and other initiatives between individual parties or sector-wide (Kamminga & Smits, 2012). Cooperation between public and private parties increasingly attracts attention from scholars for some time (Bresnen & Marshall, 2000). Cooperation has been identified as a critical success factor in construction projects in multiple studies (van Valkenburg, Lenferink, Nijsten, & Arts, 2008; Chan, Ho, & Tam, 2001; Bresnen & Marshall, 2000; Larson, 1995). The term cooperation is a rather vague concept and is used in multiple ways. It is therefore needed to set a clear definition of the term for this research. In a study of Browning, Beyer and Shetler (1995), the authors cite several aspects of cooperation relevant to their research on cooperation in competitive industries. They state that cooperation occurs when "people or groups act together in a coordinated way to pursue shared goals" (Argyle, 1991, p. 4). In addition to that it involves the sharing of the benefits that emerge from cooperation (Deutsch, 1993). An interesting third aspect they added states that cooperation "maximizes both the individual's and others' interests, whether the situation involves correspondent or non-correspondent interests" (Derlega & Grzelak, J., 1982, p. 3). For this study, the following definition is formulated for cooperation: *The process between people or organisations who interact with an attitude and behaviour that supports one or multiple shared goals and interests which itself forms the basis for cooperation, whereas individual people or organisations don't hinder individual goals or interest of the others involved.*

1.3 Best-value

In the search for new procurement methods by municipalities, special attention goes out to best-value. Best-value procurement was introduced in The Netherlands by Rijkswaterstaat to speed-up reconstruction projects as part of the Spoedaanpak [urgent projects program]. The method has been developed by Dean Kashiwagi, professor at Arizona State University. In Best-value procurement, the contractor is seen as the expert who knows how to handle and solve the problem of the principal. The principal is therefore required to 'let go' and trust the contractor on his expertise and let the contractor take the lead. Therefore, the principal doesn't set minimal requirements and isn't looking for the contractor who can fulfil these for the lowest price. Instead, the principal sets a maximum budget and tries to find the contractor who can solve the problem and delivers the highest value with the most certainty in terms of costs, time and quality (Rijt & Santema, 2013; Vulperhorst, 2012). The use of best-value procurement in the urgent projects program could count on overall positive reviews from both

Rijkswaterstaat as principal as well as from the contractors from the 16 reviewed projects. According to the evaluation of the method (Vulperhorst, 2012), best-value shifted the accent from price to quality and was able to select the best bid in terms of quality while these bids turned out to be amongst the lower priced bids. Also, innovation was stimulated, the total project durations were cut by approximately 6 to 9 months compared to design-build (DB-) projects and transaction costs (of the principal) were on average 55% of those of DB projects.

Best-value is named in as promising procurement method and project approach when considering ways to improve and renew cooperation between principal and contractor and can fulfil new requirements imposed by changing governance modes (Kamminga & Smits, 2012; Vulperhorst, 2012; van Duren, 2013; Duren & Dorée, 2008). A survey held for this research showed that 41% of the responding municipalities used the best-value method in their construction projects and another 33% named best-value as an interesting method to use in their projects in the future. More details about the survey can be found in attachment 1.

This study tries to identify how best-value changes the cooperation between principal and contractor in Dutch municipal construction projects. To do that, the study focusses on control, trust and risk perception as described in the framework for interorganizational cooperation by Das and Teng (2001) (see paragraph Theoretical Framework). In a multiple case-study, three municipal construction projects are studied to see how a best-value project can work in practice and how parties cooperated in these projects.

2 Research design

2.1 Problem definition

Traditional contracts in the construction industry are strongly focussed on formal control of the cooperation between principal and agent by means of a strict description of the obliged result or an extensive tender specification. This form of control can hinder cooperation based on trust in the project phases after the tender. In best-value, control of the contract is organized differently and leaves room for more informal forms of control.

Other than general information about best-value and its usage in the construction sector, little is known about how different municipalities apply the method and how this influences cooperation between municipalities and contractors. More specific: how different control-modes, made possible by best-value, change the relationship between principal and agent in municipal construction projects.

2.2 Research question

How do different forms of control, made possible by best-value, change cooperation between principal and agent in municipal construction projects?

2.3 Method

The research consists of two main-phases and starts with a literature study into the underlying principles of best-value and control in interorganizational cooperation. The second phase is a multiple case study to see best-value projects in practice and assess the usage of control modes and their influence.

2.3.1 Literature study

The first part of the research is a literature study in order to (1) understand the best-value method and (2) control in interorganizational cooperation. As third part, the literature study considers the available information about control and its effect in best-value.

2.3.2 Multiple case study

Formal and informal control and their influence on a project can't be seen without a context. A multiple case study can provide this context and provide insight in best-value and control in practice.

Case selection

To select cases, the results from the survey were used. First of all, three municipalities who have used best-value are selected based on the grade of urbanisation provided by the Dutch national bureau of statistics (CBS). Municipalities are classified in a range from highly urbanised to not urbanised. The goal is to select three different sized municipalities. One in the category 'highly urbanised', one in 'moderate-high' or 'moderate' and one in 'little' or 'not'. See Table 1

Table 1: CBS categorisation of urbanisation of municipalities and typical Dutch examples (Source: CBS, 2015)

Urbanisation	Density (addresses per km^2)	Examples
High	>2500	Amsterdam, Groningen, Hilversum
Moderate-high	1500-2500	Amersfoort, Enschede, Wageningen, Gouda
Moderate	1000-1500	Ede, Roermond, Houten
Little	500-1000	Emmen, Hardenberg, Haaksbergen
Not	<500	Veere, Ommen, Baarle-Nassau, Terschelling

Within a selected municipality, a project will be selected together with the municipality. In order to keep the projects somewhat comparable, all selected projects are preferably finished recently (max 2 years ago) and had a contract price between 0.5 and 1 million euro.

This, because it is assumed that there is a correlation between the contract price and the complexity and, secondly, the complexity and the chances of parties behaving opportunistically. By choosing similar sized projects in terms of contract price, projects are considered more comparable.

Document analysis

First, the municipality was contacted to introduce the study and to check whether they were willing to cooperate. After that, a brief visit followed to meet the contact person of the municipality in person, get basic information and understanding about the project and the organization and to decide which documents were needed to analyse for the first part of the case study. Document analysis should give a basic understanding of each project. Basic information is collected such as: the parties involved, duration, location, used contract, initial problem and delivered product. Furthermore, a timeline is generated in order to get more insight into the process during contracting- and realisation phase. Finally, this information forms important input for the interviews in the next phase. Document research identifies key-moments and decisions that steered the project and should be explored during the interviews.

From each project, a detailed timeline was made from project initialization to completion, including decisions, formal contact between principal and contractor and other details that may be of importance. These timelines then showed moments that needed more clarification and important moments of cooperation between client and contractor. Therefore, the timelines formed the basis of the following semi-structured interviews.

Interviews

The document analysis forms the basis for the semi-structured interviews. This phase has several goals: finding context and more in-depth knowledge into the information found in the documents for one and, secondly, verifying if found information is understood correctly. Therefore, this phase is a form of triangulation and enhances the internal validity.

The interviews are semi-structured. A list of general questions is made on forehand that consists of questions applicable to all cases and specific questions based on the information form the documents. The goal of the semi-structured character of the interviews is to leave room for follow-up questions and to explore possible key-facts that hadn't come to light based on the documents. Per case 2 interview moments are planned. One with the principal and one with the contractor. Furthermore, more brief contact is planned at the start of the process to introduce the study. Per municipality the involved head of procurement and the project manager are interviewed. The project manager is interviewed from the side of the contractor. Above all, the preference goes out to someone that has been involved in the project from beginning till end.

For each client-interview, two persons were interviewed at the same time. The procurement/process official and the official concerned with the daily project management. For each contractor-interview, an official concerned with (daily) project management was interviewed. The reason that one person was interviewed from the contractor side had a practical reason. As these projects were finished, teams from the contractor were disband and persons worked at different project sites, moved to other companies etc.

Every interview was build up in two parts. First, more general questions about the project, BVP in general and the project-specific process were asked. In the second part, the project was discussed chronologically, focussing on behaviour of the involved parties in terms of control, risk perception and trust. Each interview, 60-90 minutes in duration, was recorded digitally and transcribed afterwards. The interview script is available as Appendix 4.

2.4 Relevance

Although studies with subjects as best-value, cooperation or tendering aren't unique, this research has the potential to deliver new insights just because of this combination of subjects. Most studies into (new) tendering- or cooperation methods in The Netherlands focus on a national level. Although, in two third of the projects on the market, a municipality is principal. At the same time, municipalities struggle to implement changing procurement law and incorporate the need for changing governance structures in their projects (Aanbestedingsinstituut, 2014). Furthermore, the environment and interests a municipality acts in, both social and political, differs from that of a national organization. Therefore, municipal tendering deserves the attention within the field of research in construction management.

This research is conducted in collaboration with Vereniging Stadswerk. This association consist of 190 municipal members (48% of the Dutch municipalities) and tens of other parties and companies working in the field of management of public space together with municipalities (Vereniging Stadswerk Nederland, 2015). Vereniging Stadswerk therefore provides the essential network to make this research possible.

3 Theoretical Framework

3.1 Best-value

Best-value Procurement (BVP) has been developed by Dean Kashiwagi at the Arizona State University. In 2005 Rijkswaterstaat and Heijmans introduced the method in the Netherlands. To do so, the original Best-Value method had been adjusted to meet European and Dutch (legal) requirements. (Kashigwagi, 2011) In this research, best-value is applied in this adjusted way as described by Rijt & Santema (2013).

BVP is more than just a procurement procedure, BVP is part of the Best-Value philosophy. The introducers of Best-Value Procurement in the Netherlands, Jeroen van Rijt and Sicco Santema, describe BVP as "a philosophy […], a word that means far more than the procurement transaction. […] Best-Value is not just a method for selecting a supplier. It is rather a philosophy to create and maintain a cooperation" (Rijt & Santema, 2013, p. 28). Because of this philosophy, basing a project on BVP changes not only the procurement process, but the cooperation process during the entire project. Therefore, nowadays the term Best-Value Approach or Best-Value is used. In this study 'Best-Value' will be used, meaning the complete method for the project from procurement till delivery.

3.1.1 The Process

Best-Value is build up around multiple phases: planning, selection, pre-award and execution (see Figure 2).

Figure 2: Phases of a best-value project

During the planning phase, the principal concretizes the problem definition, goals of the project, and schedule. Furthermore, the project team is assembled and the call for tender is written. At the end of this phase the principal puts together and publishes the call for tender.

Contractors then make plans to approach the present problem and project goals. Their plans are presented to the principal in the form of a performance plan, a risk dossier and a chances dossier. Every plan consists of no more than a few pages, so that the contractor concentrates on the most important and distinctive information. The performance plan states how and why the contractor can solve the client's problem. It is considered important that the contractor states objective measurable information to support his claims in this plan. Furthermore, the risk dossier states the most important client risks during the project and how to control them. In the chances dossier, finally, the contractor states opportunities related to the project that the client can buy as extra options.

The selection phase aims at selecting the contractor who can execute the project best and is 'expert'. The bids are therefore assessed on multiple award criteria; the bid book containing the plans and dossiers, an interview and the price. The Interview is an important criterion and interviews are held with the key officials; the staff that will later execute the project in a key position. The interviews can provide more insight in the submitted plans and the officials are 'tested' whether they support the plans and can function as expert and are able to lead the principal through the project. Based on these award criteria, the best contractor is identified.

The selected contractor and client start the pre-award phase of Best-Value. In this phase, the bid will be made more clear and concrete. The contractor, regarded as expert in solving the problem, takes the lead in this phase. The phase aims at an agreement between client and contractor and the award of the project to the contractor. To do so, details are added to the plan and discussed. During this phase, special attention goes out to the risk dossier as client and contractor agree on most important client risks and their mitigation. During the phase, merely plans are made and further concretized, no actual designing activities should take place here. Upon agreement, the contractor formulates the contract.

By ending the pre-award phase, the tender process is finished and the project can continue into its execution phase. Best-Value changes this phase, compared to projects based on other forms of integrated contracts, in the way that contractor and client interact. Best-Value enables communication in the form of weekly risk-based reports called *weeklys*. Communication is therefore based on the client-risks dossier. Per risk, the actual status is updated on a weekly basis in terms of mitigating measures and quantified impact in terms of time and money. The client has the obligation to respond to the weekly within days by scoring its satisfaction regarding the contractors approach. By this, communication is boiled down to so called dominant information.

An important aspect of Best-Value is the behaviour the involved parties show. The contractor gets as much freedom as possible to enable him to do what he can do best. That is, solving the problem of the client as offered during the tender phase. The principle is that the client is expert and the procurement phase selected the party with the most expertise. To give the expert the freedom, he takes (gets) the responsibility and leadership role in the project. Steering and leading the project by the client is seen as a risk in Best-Value.

3.1.2 Information measurement theory

The Best-Value process is based around the free flow and availability of information (Rijt & Santema, 2013). Information measurement theory (IMT) by Kashiwagi is the core of this process. IMT states that if the capacity of a person to process the available information is insufficient, this person has the (mis)perception that not enough information is available (Kashiwagi & Kashiwagi, 2010). To compensate for this information shortage, the person reverts to his past experiences to create expectations. This leads to decisions based on personal, subjective information and biases. "IMT identifies decision making and bias as the major obstacles to perfectly understanding reality and the source of risk." (Kashiwagi & Kashiwagi, 2010, p. 1)

The theory states that if all information is available, no doubt can exist over the future situation and no (subjective) decisions have to be made. Dominant information (see next paragraph) plays a central role in Best-Value in order to overcome this problem. The use of dominant information, leaving out all the non-informative dead weight, makes the available information accessible and more efficient to process. This enables the free flow of information, stimulates

the perception that all needed information is available and minimizes the influence of bounded rationality (van Duren, 2013).

3.1.3 Dominant information

Best-Value relies on dominant information. This means, per Rijt & Santema (Prestatieinkoop, 2013, p. 70): non-disputable, verifiable, accurate, measurable, high performance and applicable. Dominant information origins from IMT. Kashiwagi describes dominant information as “Dominant information can be understood by almost everyone due to its simplicity and it does not require technical knowledge. Dominant information can be described as a no brainer, common sense, easy to understand, or where there is no requirement to use one’s unique experience to validate a concept.” (Kashiwagi & Kashiwagi, 2010, p. 3). In Best-Value, parties are required to communicate based on dominant information, for example in the call for tender, the bid and the *weeklys*. By using dominant information parties have measurable and comparable information and the communication process is more efficient. This makes it possible for the principal to select the best contractor, for example.

3.2 Interorganizational cooperation

A construction project is a temporary cooperation between principal and client (van Duren, 2013). In Best-Value, the contract is written after the pre-award phase and forms the basis for cooperation during the realisation of the project. In the tender phase of the project, ex ante, choices are made about the form of cooperation between principal and agent as well as the way this cooperation is controlled.

T.K. Das and Bing-Sheng Teng (2001) describe how trust, risk perception and control each play an important role and are highly interconnected in interorganizational cooperation (see Figure 3). The model of Das & Teng forms the basis for the theoretical framework.

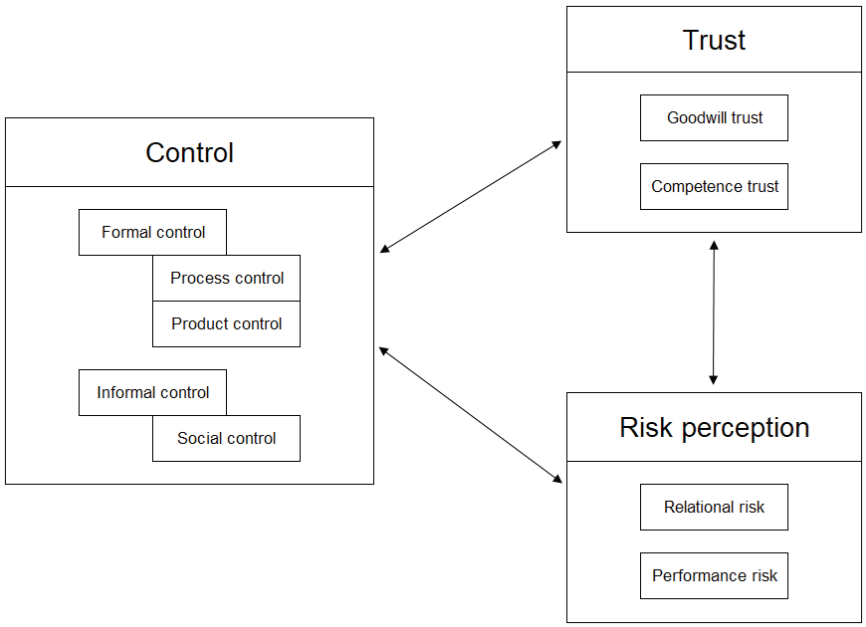

Figure 3: The interconnected aspects of interorganizational cooperation per Das & Teng (2001).

3.2.1 Control by Das & Teng

In order to make cooperation possible, parties look for forms of controlling the risk involved with cooperation.

Das & Teng describe two forms of control: formal and informal. Formal control "emphasizes the establishment and utilization of formal rules, procedures, and policies to monitor and reward desirable performance" (Das & Teng, 2001, p. 259). Formal control is further dived into product control and process control. Informal control, or social control, is "the establishment of organizational norms, values, culture, and the internalization of goals to encourage desirable behaviour and outcome. Here, control is intended to reduce goal incongruence and preference divergence among organizational members" (Das & Teng, 2001, p. 259). In social control, a shared goal grows over time as the commitment of the members to the cooperation grows over time. Behaviour and outcome aren't specified in the beginning, but follow from the process of socialization.

The choices made during the procurement phase of the project are about contract types and (their) control modes. Here the underlying control principles are weighted: formal control based or informal trust based. These choices are made based on several factors: the knowledge and measurability of the product and the knowledge and measurability of the process. These factors determine the perception of the relational risk and the perception of the performance risk involved in the cooperation (Das & Teng, 2001). Control mechanisms that naturally follow from these are respectively control/measurement of the product and control/measurement of the process, following the principle that you can't control what you don't know or can't measure (Figure 4).

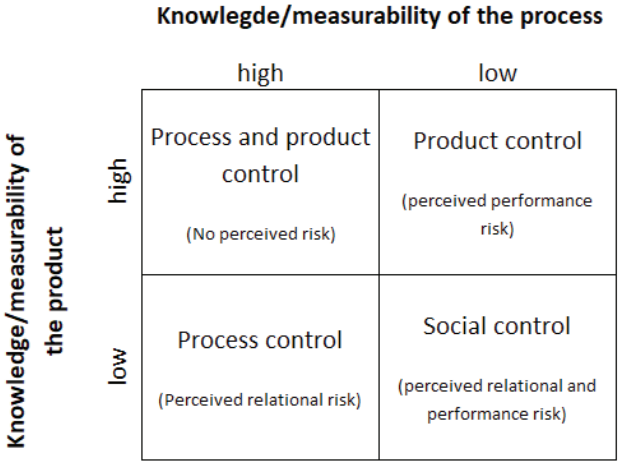

Figure 4: Control modes and their relation to knowledge and measurability in the interorganizational cooperation. Based on Das & Teng (2001).

Based on this model, it can be concluded that formal product control is the appropriate control mode if the product measurability is high, while the measurability of the process is low. In that case, there is a perceived performance risk. The opposite is true for formal process control. If both aspects are unknown or hard to measure, social control (as informal control mode) is the preferable control mode.

Das & Teng state that the use of the wrong control mode can have a counterproductive effect, leading to undesired behaviour or undesired output. Formal control can undermine the process of building trust and can lead to a situation where parties aren't able to perform autonomously and to decide on what works best, throwing goodwill in doubt. Furthermore, the intentions and competence of the other party are openly doubted, creating a sense of

(mutual) mistrust. “When behaviours and processes are specified in an alliance, the implication is that the partners cannot be trusted with things being done their own way. Their competence is questioned as to whether they have the ability to carry out the job in the best possible way. As such, a sense of mistrust prevails in the alliance” (Das & Teng, 2001, p. 263). Social control, instead, is trust-breeding as the process of creating shared goals and norms increases mutual understanding. Controlling risks with the right mix of control modes leads to the desired cooperation, behaviour and output.

3.2.2 Control by Williamson

An often-cited different approach to control is that of Williamson, one of the founding fathers of Transaction cost economics. Williamson described different contract forms (1979) and safeguards (1975) to control cooperation in transactions. The three contract types described by Williamsom (1979) are: classical contracts, neo-classical contracts and relational contracts. Classical contracts, first, are appropriate for ‘standard’ situations with a predictable and definable character and assumes a perfect market. In this situation, the identity of the contracting parties is not important. Control in these contracts is simple: if a contract party fails its obligation, he won’t get payed. The neo-classical contracts, secondly, are meant for longer term relationships in more risky situations. In these situations, it is too expensive, if not impossible, to write a complete comprehensive contract covering the complete transaction in detail because of the complexity and uncertainties. This contract type essentially acknowledges the existence of bounded rationality and an imperfect market. This contract type enables the trade, e.g. a product for money, and provides control mechanisms to be able to respond to unforeseen circumstances. Relational contracts, as third, are applicable in situations where the complexity is too high and the duration too long to write a neo-classical contract. In this case, there’s a need to arrange the relationship and cooperation but to a lesser extent the need to arrange the content of the transaction. The contract focusses on the longer-term relationship between the parties and its values and norms to make the transaction possible.

Furthermore, Williamson (1975) described safeguards: (1) connecting bonusses and penalties to performances, (2) an organization structure in which disputes can be settled, e.g. by an arbitration board and (3) supporting continuity by shared goals, norms and values; e.g. by promising future projects in case of good cooperation.

3.2.3 Trust

Trust is a crucial element in cooperative relationships. If parties must cooperate for a certain time, they have to be aware of the trustworthiness of the other party (Ring & Van De Ven, 1992). Researchers use different interpretations of trust. The definition suggested by Das & Teng (2001) based on these different interpretations: “trust is about positive expectations regarding the other in a risky situation” (…) “a subjective state of positive expectations” (2001, p. 255)

Das & Teng (2001), furthermore, give a broad overview of different scholars describing different dimensions of trust. They conclude to adopt the definition by Nooteboom (1996, p. 990): “Trust may concern a partner’s ability to perform according to agreements“ (competence trust), “or his intentions to do so” (goodwill trust).

Das and Teng describe the interrelationship between trust, risk and control: If trust in general in the other party is high, the risk perception will be low and the party tends less to control the other. About dimensions of trust they state that “a firm’s goodwill trust in its partner firm will

reduce its perceived relational risk in an alliance, but not its perceived performance risk." (Das & Teng, 2001, p. 257). In the same way, competence trust is related to perceived relational risk and vice-versa.

The other way around, control affects trust. Formal control undermines trust, because "employment of strict rules and objectives means that members do not have the autonomy to decide what works best. Member's goodwill is thrown in doubt. As a result, an atmosphere of mistrust is created. Informal control influences people's behaviour through creating shared goals and norms. This process increases mutual understanding and is thus trust-breeding" (Das & Teng, 2001, p. 263). See Table 2 for the effects of control on trust.

3.2.4 Risk perception

Cooperation between client and contractor is characterized by risks (Das & Teng, 2001). Das & Teng, distinguish relational risks and performance risks in their model, like the dimensions of trust distinguished by Nooteboom. Relational risk is the possibility and consequence of unwillingness to cooperate, in particular the risk of opportunistic behaviour from one of the parties. In this case, the party's own interests prevail over that of the cooperation. Performance risks are the possibility and consequence that goals of the cooperation cannot be made. A source of this risk can be changing external circumstances outside the range of influence of the participants or incompetence of one the parties. In relation to control, Das & Teng state e.g. that the more is known about the desired behaviour of the other party instead of about the desired output, the higher the perceived relational risk will be. In those cases, behaviour control, for example explicit clauses about information exchange, will reduce the perceived relational risk. The other way around, perceived performance risk will be reduced by output control. Table 2 gives an overview of the effects of control on risk perception.

Table 2: The effects of control on risk perception and trust

Control		**Relation with risk perception**	**Relation with trust**
Formal	Product	Lowers perception of performance risk	Lowers competence trust Lowers goodwill trust
	Process	Lowers perception of relational risk	Lowers competence trust Lowers goodwill trust
Informal	Social	Lowers perception of relational risk Lowers perception of performance risk	Goodwill trust breeding Competence trust breeding

3.3 Control of cooperation in best-value projects

This paragraph explores how best-value changes the control mode in construction projects, based on the two dimensions of control; formal and informal. Table 3 sums up these control modes in best-value projects and integrated contracts as reference.

3.3.1 Formal control

In construction projects, the traditional focus is mainly on writing complete comprehensive contracts following the classical contract model from Williamson (1979). As the construction industry is characterized by incidental and unique projects where uncertainties are present,

neo-classical contracts are more appropriate, according to Transaction cost economics (van Duren, 2013). Predictability and definability are essential in the deals made based on classical contracts. As these characteristics are not present in construction projects, writing complete and comprehensive contracts is impossible. The inevitable deficiencies in classical contracts in construction projects can therefore be exploited by parties involved, as a form of opportunistic behaviour (Das & Teng, 2001; van Duren, 2013). An example is the search for gaps in the traditional building specifications [Dutch: bestek]. Also modern integrated contract forms make use of a classical contract approach. E.g. by attempting to write a complete tender specification and complete list of functional requirements. After the call for tender, the principal has minimal ability to influence these requirements or the project based on these specifications in general (Eriksson & Westerberg, 2010). One of the risks that follows is the requirements and specifications turning out to be incomplete or interpretation differs between client and contractor.

In best-value, the principal specifies the tender based on a description of the problem and project goals, the contractor leads the further specification and design process. Although, a brief set of requirements and tender specifications can be given, but rather by means of a framework or set of boundaries. The final contract is written in cooperation between client and contractor, based on the framework given in the tender specification and after the contractor made concrete plans in the pre-award phase. Therefore, a greater amount of freedom and autonomy is given to the contractor to come with a suitable solution and design compared to other tender procedures.

Best-value tries to find the best party to solve the client's problem. In that process, the selected contractor proves to be expert in the field of the project. This lowers the perception of performance risk at the start of the project. By specifying the tender in terms of problems and goals, the contractor has the ability to specify a solution that he can deliver and provide best. Trust in the contractor's performance is present due to the nature of the selection process, although knowledge of the offered product is thereby low. The pre-award phase focusses on getting more knowledge about the process. This should lower the perception of relational risk. For example, by agreeing on allocation and management of risks or setting up a standard for communication and reporting. These agreements on the process, made concrete in the contract, form formal control and direction form the client towards a desired project result (desired performance and desired behaviour/relationship). By this, the (perceived) risk that comes with tendering ("buying a promise" (van Duren, 2013; Dorée, 2001)) is reduced by the creation of a (neo-classical) contract in cooperation between client and contractor.

3.3.2 Informal control

By using classical contracts in the construction industry, parties can be tempted to look for deficiencies and exploit them, as described before. The more appropriate neo-classical contracts, like used in Best-Value, are able to control this. These contracts, at the same time, create an uncertainty as the actual product isn't described in detail. At awarding, the process (how) is agreed upon, but the product (what) is still unclear. The design process is part of the execution phase of the project, after awarding. Therefore, client and contractor need to find some form of cooperation. Each based on their own expertise and based on their own risks and responsibilities.

Best-value reduces the risk of opportunistic behaviour (relational risk) in multiple ways by applying informal control. At first, the method creates a sense of responsibility and

commitment from the contractor for delivering the right product. This, because of the tender specification in terms of problem and goals. Therefore, the designed solution an actual design is fully made by the contractor. It's is their own product. Furthermore, the design and execution process isn't made 'anonymously' by some contractor. Instead, it is directly connected to the key- official because he has to 'defend' the plan in person during the interview and in the pre-award phase (van Duren, 2013). Furthermore, the method stimulates that this key-official is involved in the project from very beginning till end. This, in contrast with other contracts that are drawn-up and signed by procurement officials, tender- and contract managers, where designers have a relatively anonymous desk job and officials concerned with the execution receive the designed project after the contract is signed. Because of the interviews, key-officials meet relatively early in the project, enabling the start of a process of socialization early (van Duren, 2013).

In best-value projects, formalization of the cooperation takes place relatively late in the process. Parties need to work together during the pre-award phase without a contractual base. Instead, their cooperation is based on intentions. This cooperation based on intentions and expectations is called a psychological contract by Ring & Van de Ven (1994). They stated that processes like socialization and consensus-making are more likely to succeed in situations

Table 3: Different control forms in integrated and best-value projects

Control		**Examples in integrated contracts**	**Best-Value**
Formal	Product	Contractor verifies design and execution based on requirements from the client	Contractor verifies design and execution based on requirements extracted form project goals
		Warranty and maintenance by contractor	Warranty and maintenance by contractor
	Process	Standard contract terms and conditions (UAV)	
		Penalty and bonus possibilities	
			MEAT-criteria aimed at process
			Minimization of information asymmetry by communication based on dominant information
Informal	Social		Early start of process of socialization
			Late moment of formalization
			Key officials in a position that stimulates commitment
			High level of freedom and autonomy for contractor

where parties cooperate solely on such a psychological contract (Ring & Van De Ven, 1992). This situation in best-value during the pre-award phase will stimulate a culture of shared norms and values and cooperation between parties, based on aligned goals (van Duren, 2013).

4 Multiple case study

4.1 Results

The results of multiple case study are described below in two parts: general information and description per case and a cross-case analysis. Roughly, general information is the result from the document study and the description provides more insight based on the interviews. The cases are compared and further analysed in the cross-case analysis. The results of the case study are available as attachment in more detail in Dutch. Furthermore, Table 4 gives an overview of the basic facts of the three cases.

Table 4: Overview of the three cases

Municipality	**Amsterdam**	**Nijmegen**	**Schouwen-Duiveland**
Urbanization	High	Moderate-high	Little
Project	Breakwater structure IJburg	Reconstruction public space Willemskwartier	Jetty Rollandthof
Tender procedure	National public tender	Multiple private tender	Multiple private tender
Contract type	DBM based on UAV-GC	Construction team	Non-standard
Award criterion [rel. part quality]	MEAT [80%]	MEAT [100%] (no price)	MEAT [33%]
Set max price	€ 700.000	€ 1.339.000 execution € 26.000 construction team	€ 600.000
Contractor	Hakkers BV	Dusseldorp infra BV	Martens en Van Oord Aannemingsbedrijf BV
Offered price	€ 650.000	Not applicable	€ 550.000
Realised price	€ 642.000	Open budget estimate + 11% general costs, profit and risk	€ 872.750
Delayed/accelerated	39 days delayed	Not applicable	234 days delayed

4.1.1 Case Amsterdam

The project in the city of Amsterdam is about a new breakwater structure in front of the marina harbour of IJburg. The goal of the project is to make the harbour accessible during wind forces up to 6 Bft.

The municipality chooses for a best-value project because they lack specific knowledge to determine the optimal type of structure for this specific situation. Furthermore, they intend to speed-up the project and aim at a more efficient process compared to more traditional methods. As third, the contractor will be responsible for the maintenance for 15 years. Maximum design freedom for the contractor should lead to an optimal design that incorporates maintenance requirements and wishes, is what they hope.

The procedure for the DBM-contract based on UAV-GC follows the national public tender. The contract is awarded based on most economically advantageous tender (MEAT). Contractors can earn a virtual discount up to 80% on the set max price of € 700.000.

Planning phase

The municipality publishes a call for tender based on dominant information. This involves a clear goal and scope of the project, available budget and time frame. The contractor is requested to present the plans in maximum 5 pages. A set of requirements is included and contain mostly legal obligations towards other authorities.

It became clear from the interviews that the municipality was willing to give the contractor maximum freedom and autonomy. Furthermore, by setting clear goals during the planning phase the municipality was forced to prioritize goals and agree on them internally. The process stimulated the internal organization to discuss goals and interests in an early stage of the project. This helped to align these goals and prevent internal disputes and conflicting information towards external parties in later stages.

Selection phase

De principal receives only one bid from the market. Both the municipality and the contractor blame the tight set maximum tender price as well as the fact that a good bid required an extensive preparatory study into water flows, waves motion and ice related forces. Furthermore, contractors had to prepare their bid during the holiday period.

In the performance plan, the contractor states which products he wants to deliver and why it meets the requirements and solves the problem. Process related, he states that he can manage interfaces and stakeholders well. The risk dossier is more product oriented. Only one stated risk aims at the process (possible resistance from external stakeholders). The chances dossier also aims at the product.

During the interviews, the interviewee was assessed on more deep knowledge of the project, his commitment to the project goals and the (his) plan, and on showing ambition to make the project a success. During the interview, the principal sets a very formal atmosphere in the eyes of the contractor. In such a way that a conversation was not possible, hindering the process of socialisation. During the interview, the key official of the contractor explains why the set maximum tender price was very tight and how they managed to make a bid. The principal appreciates the way the contractor explains this and the creative thinking to make it possible. Therefore, he generates trust amongst the key officials of the principal.

This one interview with one official from the side of the contractor lays a big pressure on his shoulders to succeed. In general, the contractor was eager to win the tender as investments had to be made to make the bid. Furthermore, the project formed an opportunity to get a foothold in the city of Amsterdam.

Pre-award phase

The pre-award phase took about five months. Six weeks more than initially planned, due to the time needed for the municipality to accept the plans was more than planned. The contractor takes the lead in this phase, although both parties cooperated to agree on more detailed requirements and project- and process management plans. Therefore, a social contract formed itself early in the project. As the process manager of the principal said in the interview: “During this first phase, it proves to be very important to do your utmost. If you show each other to be trustworthy, you can take more distance. The contractor really gave us the feeling that he was working hard for us. And we showed to be working hard for them.”

The contract was written by the contractor and he chooses to add detailed functional requirements, derived from the call for tender and the pre-award phase, to the contract. He furthermore chooses for the systems engineering method to specify these requirements and validate them in a later stage of the project. A strong form of formal control is added to the contract in the form of penalties for delays or not conforming to the quality plans.

To start the design process, more information is needed about the soil composition and conditions. During the pre-award phase, the contractor receives a private assignment to execute this field study.

Client and contractor discussed the assumptions regarding forces generated by ice. He wants to ignore norms and instead make assumptions based on conditions present in the last 50 years. Within the maximum set price, a design based on the strict norm is not possible, the contractor states.

Execution phase

The execution phase starts in January 2014, although official awarding of the contract takes another month. This phase starts with getting permits and writing more detailed plans.

During the execution phase, unforeseen problems arise regarding the permissions needed. The client said that an execution plan regarding flora and fauna would be sufficient. Instead, the authorities state that a full permit is needed. Furthermore, the city of Amsterdam extends the period for decision for the environmental permit from six to twelve weeks. Also, the commission that decides on the external appearance of buildings and structures doesn't agree on the proposed design and the contractual maintenance period can't stand for a temporary construction in order to get a building permit.

First, the contractor requests to change the contract and postpone the completion date. There was high pressure to arrange this, because of the penalty in the contract. Both client and contractor state afterwards that this penalty hinders cooperation in the process as interest are driven apart by this clause.

A second request to change the contract considers the needed appearance change and the shorter maintenance term. The principal wanted to cut the budget because of the shorter maintenance term as extra costs due to the appearance change are the risk of the contractor, they state. The contractor proposes to set the extra costs against the saved costs with the sum of zero. The parties agree after some negotiation to meet each other in the middle. The saved costs are for the benefit of the client while the extra costs are split between client and contractor. From the interviews, officials from both sides state that the trust they build in the earlier stages of the project pays out in this dispute. This made it possible to discuss interests, setbacks and unexpected luck openly. At some points in the process the contractor helped the client and vice-versa.

Communication takes place formally based on *weeklys*. During the execution phase, no meetings were planned as execution only took some weeks. In the time before execution, informal communication was present. If needed, a formal meeting was scheduled. Such a meeting took place two times to discuss the setbacks regarding the permits and the requested change of contract. Overall, the open transparent and pro-active communication of the contractor, both formal as informal, was trust-breeding.

During the construction, a supervisor from the client was present at the site. Although the contractor proved to build according to the design, by verifying requirements following the system engineering method. The supervisor proofed to be useful however. He formed a direct communication line between contractor and client in case needed.

4.1.2 Case Nijmegen

The project in the city of Nijmegen is about the reconstruction of the public space of the Willemskwartier neighbourhood.

Best-Value was used to form a construction team with the contractor who can cooperate best with all stakeholders involved and can improve the plans and design with his construction experience and knowledge. The procedure follows that of a multiple private tender with awarding of the contract based on MEAT. No price is included in this part of the procedure and awarding is purely based on quality.

Planning phase

Information about the project is publicised in the call for tender. Here the project is described in terms of problem definition, goals and result. Remarkable is the difference in project goals: from “the public space is improved” to “the Tollenstraat becomes a cycling street with red pavement”. In the construction team, the municipality want to be responsible for the work description, budget, scheduling and phasing of the execution. The contractor will be responsible for the executional phase and communication with public utility companies and some stakeholders.

The plans that are part of the bid focus mainly on the cooperation within the construction team and the view of the contractor on this. In the changes dossier, the contractor had the possibility to suggest additionalities to improve the positive impact of the project.

The multiple private tender was send out to 5 contractors. This procedure allows the municipality to invite contractors they trust and support local or regional parties. Furthermore, the contractor is more eager to keep the client satisfied so he will receive in invitation in the future.

Selection phase

Price is no part of the bids of the contractors. The municipality wishes to leave the price aspect out of these phases of the project and focus on cooperation and quality. In a later stage parties work based on an open budget estimate with a fixed surcharge for general costs, profit and risk.

An interview is part of the selection phase. During the interview, the key official of the selected contractor showed commitment toward the bid and cooperation in a construction team focussing on open and transparent communication. Also, he proved to have gained specific knowledge of the neighbourhood in order to improve the bid. In the interviews, the officials of the municipality state to be pleased with the interviews. “With the interviews, you know in 10 minutes if he gets it, the bottlenecks and solutions in the project, and is the right person to do it. The interview is very useful as part of the selection.”

Pre-award phase

In this project, the construction team can be seen as the pre-award phase. In this case, this phase stated with the construction team contract.

Here, the municipality takes the lead in this phase and expects the contractor to participate in the process as an equal party. This leads to a short period where the mode of cooperation is a bit unclear. It is unclear what is really expected from each party and what exactly is the responsibility of which party. Furthermore, it becomes clear that the preliminary design is mostly completed already and room for improvement and change by the contractor is limited. Also, the municipality chooses to the designing part themselves as far as possible. When the

design becomes more concrete, the contribution of the contractor becomes bigger. The contractor designs alternatives and makes budget estimates. Furthermore, he takes the lead in surveying the current situation and advices on the recycling of current material.

Execution phase

This project knows multiple moments of formalization and shift of responsibilities from client to contractor: with the construction team contract and with the building contract following form each phase of the construction team.

At multiple moments in the project, the parties cooperated both in the construction team as well as on the project site. This was the case as the project was split up in multiple stages. Therefore, a really fundamental change with the end of the pre-award phase and the start of the execution phase was not present. Execution of a certain phase of the project only stated after 'each and every question was answered'. The parties aimed at a seamless change form construction team phase to execution phase and this worked well. As the contract and design was the product from both parties, problems of during the execution were handled smoothly and in good cooperation. Both parties felt responsibility.

Communication is open and transparent in both the construction team phase as the execution phase. The approach of the project demands this attitude of both parties. There wasn't specific communication based on dominant information. In general, formal communication was present in the form of meetings. Moreover, informal communication took place as the parties cooperated closely together.

During the executional phase, a supervisor from the client was present on site. He functioned as contact person for the client if needed. Both for the contractor as the stakeholders.

4.1.3 Case Schouwen-Duiveland

The case of the municipality Schouwen-Duiveland is about delivering a jetty in the harbour of Zierikzee and make it accessible. Therefore, dredging activity should take place and as a result a sheetpile wall needs to be reinforced.

By using a best-value the municipality aims at a more efficient and quicker process. They don't have the specific knowledge and by using a Best-Value procedure, they don't have to involve an external bureau in the process.

Planning phase

The call for tenders starts with the goal and ambition of the principal. In the set of requirements, it's clearly stated which jetty the municipality wants, including brand and type. The other parts of the project, dredging and reinforcement of the sheetpile wall are left to the expertise of the contractor. The contractor gets maximum freedom on these parts of the project.

The tender follows a multiple private tender procedure and three contractors are invited to bid.

Selection phase

Two contractors submit a bid, made up from a price, performance plan and risk- and chances dossier. The performance plans describe the projected solution to the client's problem. The specifications of the jetty are clear, but as freedom is given in the dredging and reinforcement part of the project, big differences occur. One contractor state that a study should be done

into possible WWII explosives resting in the harbour. This study and possible salvage activities are not part of the bid. The other contractor doesn't say a word about a study like that.

Second, one contractor proposes to reinforce de sheetpile wall, as expected by the municipality. The other proposes a solution where adjustments to the wall aren't necessary. Both parties base their conclusions on the same current and future situation. This raises questions and the municipality lack then knowledge to assess both proposals. Therefore, the municipality involves a consultant for a second-opinion and postpones the selection. The bureau concludes that both contractors made a right calculation. One contractor approached the calculations more conservative than the other. The highest scoring contractor, based on MEAT, proposes the explosives study and no reinforcement of the wall while having the highest price.

In the interviews the official from the contractor states that he can understand why the municipality asked for a second-opinion, although it is a form of distrust. He points out that the municipality planned the project for over a year and had the idea the wall had to be reinforced all this time. It would be too easy to just let this idea go when one contractor states that it is not needed. They didn't felt distrusted by the time.

The municipality chooses to interview two officials from the contractor. During the interview, they sit together at one table with the involved persons from the municipality to make a dialogue possible in a less strictly formal setting. The municipality looks for the 'drive', 'passion' and knowledge showed by the contractor. Although, this is not explicitly assessed during the interview. They conclude that this contractor has the knowledge, insight and motivation for the project and see discriminating added value.

The bid is made by the two interviewed persons and they saw the chance to come up with a smart solution to prevent reinforcing the wall. This made the key officials extra motivated to get the project awarded and stimulates commitment. The official of the contractor states in the interview that Best-Value requires a different view on the tender procedure and stimulates to come up with creative and new ideas to discriminate from other contractors.

Pre-award phase

The contract is directly awarded after the selection phase. Therefore, no real pre-award phase existed in this project. Formalization of the project took place at the traditional moment after selection. The formal contract is an official letter including the call for tender, bid and interview. Secondary, they refer to the UAV '89 if needed. The principal chooses to not use a standardized contract. They trust that their call for tender and the bid from the contractor will lead to the solution they need.

Execution phase

Because the second-opinion delayed the projects by some weeks, both parties start this phase by trying to find a way to meet the initial schedule. The municipality has the interest in doing so as political promises were made to complete the project in time.

In line with Best-Value, the contractor guided the client through the project. Communication was therefore mainly on his initiative. Every four weeks, the contractor send a formal report about. In general, communication was rather informal. The reports stated implications of risks in terms of time and budget, but *weeklys* weren't used in the project. During the project, a supervisor was on site every now and then.

The contractor starts the study into explosives right after awarding. After on site survey, spots were detected and identified as suspected. Divers had to inspect them and extra safety measures are needed during dredging. This will lead to delay and extra costs. Once these information reaches the client several officials doubt if they want to continue with the whole project. The relative simple project will face delays of weeks and total costs will be almost doubled. The contractor acknowledges that the way of communicating the implications wasn't very tactical. In a meeting, he's requested to explain the situation. At that moment, there is a great sense of mistrust amongst some of the officials from the municipality. In this meeting, the contractor explains the risks and impact of explosives in the project and the procedures in general. The municipality was, till then, unexperienced with these situations and not aware of all the procedures and regulations that exist. Thereby, the contractor earns back the trust that was needed to continue.

4.2 Cross-case analysis

In the cross-case analysis, the cases are analysed and compared on their presence of different control modes, how these evaluated over time and how this influenced cooperation.

4.2.1 Control modes

In this paragraph, the control-modes used in the cases is discussed and compared. To do this, the concluding Table 3 following the literature study is used. Per control mode (product, process and social) projects are described below. At the end of the paragraph, overview of control modes per case is provided as Table 5.

Product control

Within best value procurement, the possibility for product control is limited. The principal tries to find the expert in the tender phase. Product control is not desirable or even impossible, the methodology implies that the client has no knowledge of the product and needs the contractor as expert.

Product control is, however, present in all the projects. All principals set global requirements for the product. In Amsterdam and Schouwen-Duiveland, the contractor translates these requirements in a detailed set of requirements to verify using systems engineering. Furthermore, Schouwen-Duiveland specified the jetty and required new depth in detail and checks the bids in a second-opinion.

In the municipality of Nijmegen, product control is stricter. With the call for tender, the client sends preliminary design and describes the desired situation. Input and possible freedom for the contractor must be sought in the process here. During the execution, product control is present because of the supervisor who attends various moments (so called stop and attendance points) and has to agree on continuation of the works. This is a strong form of product control.

Process control

Within best-value projects, there are multiple possibilities for process control. First, a very strict and formal form of control is to include bonus and penalty possibilities in the contract. From the three projects, Amsterdam included a penalty in case of not meeting the completion date or the quality plan.

Next, the client can specifically ask for process related elements in the call for tender and evaluate them using MEAT-criteria. Nijmegen applies this clearly in their procurement procedure. In the risk dossier, chances dossier and performance plan, the principal is looking

for the perspective of the contractor on the process and cooperation between the parties. Points are given in case the contractor shows that he sees the client and contractor as equal partners in the cooperation.

Communication based on dominant information helps to reduce information asymmetry and is another form of process control. The municipality of Amsterdam acts by the book regarding dominant information. In the call for tender, the desired form of the bids and the way of communicating during execution. Especially the use of *weeklys* worked well in this project to make sure all relevant persons stayed in the loop. The contractor send out an updated *weekly* every Friday and the client made sure to respond to it in the first half of the next week. The *weeklys* therefore controlled the communication and give the client the possibility to steer the project (a bit) because of his formal need to respond to suggested measures. The other municipalities only applied some dominant information tools to some parts of the process. As for Schouwen-Duiveland, there was no communication based on dominant information during the executional phase. The use of dominant information here was limited to the tender phase. Nijmegen limited the amount of pages the contractor could use for the bid, but didn't really applied the concept of dominant information. Although, the close and equality-based cooperation in the construction team minimized information asymmetry.

Social control

Social control is a more informal process where parties and individuals become more intrinsically motivated to act cooperative. Best-value projects can stimulate this in multiple ways.

During the selection phase, the interview form an earlier introduction between the key officials of the client and the contractor, starting a process of socialization. In the Amsterdam project, this is partly the case. On the one hand, the interviewee makes a positive impression on the committee and this forms a basis for trust from the client. However, the contractor experiences the interview as an uncomfortable very formal session with no possibility of having a conversation. In Nijmegen, the client is pleased with the interviewed key official and gives the contractor maximum point on the interview. He generates trust form the client by giving a clear risk-based view on the project and convincing the client that they can work equally and actively together with an open and transparent attitude. The interview in the tender of Schouwen-Duiveland is less formal approached. The parties are at one table and the contractor may send two key officials. The interview is more of a structured conversation and trust-breeding at both sides of the table.

The pre-award phase provides a period in which the client and the contractor have to work together without a contractual basis. Both parties have the intention to form the basis later. It is important for both parties to complete this phase successfully. Also, both face the risk that the other party ends the cooperation and the pre-award phase fails. In the project in Amsterdam, the contractor clearly takes the lead in this process and, with the help of the client, writes the contract and various underlying documents. As for cooperation and the evolving relationship between the parties, the construction team in Nijmegen shows similarities the pre-award within Best-Value. Both parties had to find their role in the relationship and individuals in the team. This was supported by the fact that the client sought equal cooperation within the construction team.

The contractor expects that there is a key official who runs the project from start to finish. Through this role, this person may feel more personally responsible for the success of the

project and commits himself more to the project goals. This effect appears in the Amsterdam project. The key officer of the contractor primarily feels the responsibility on behalf of the contractor for the successful completion of the tender and the further project. Partly through the interview, there is a great responsibility for one person. Also in the project in Schouwen-Duiveland, the key officials of the contractor feel this responsibility and become committed. The contractor prepares the bid with a small team and comes up with chances to discriminate himself form others. This makes them motivated to win the tender, as they believe they really came up with the best plan. This makes that commitment of the key officials is present.

Finally, by giving the contractor a design freedom, autonomy and responsibility, he gets the opportunity to fully apply knowledge and expertise for the project goals. A high degree of freedom is strongly associated with the absence of process and product management. Much freedom, furthermore, reflects trust from the client. This aspect was applied mostly in the case in Amsterdam where the municipality wasn't able to choose a solution themselves and therefore asked a contractor with the Best-Value procedure. The municipality only set out boundaries, mostly given by legal requirements. Also, the project in the municipality of Schouwen-Duiveland knows a high degree of freedom. Although part of the product was specified. In Nijmegen, there wasn't freedom for the contractor in the way that is present in integrated contracts, aimed at the product. For the process, however, the contractor worked equally together with the client so that he was able to steer the process, which became a shared responsibility.

Table 5: Presence of control forms in the cases. Dark accented cells indicate presence.

Control	Integrated contracts	Best-Value	Amsterdam	Nijmegen	Schouwen-Duiveland
Product	Contractor verifies design and execution based on requirements from the client	Contractor verifies design and execution based on requirements extracted form project goals	As Best-Value	Traditional: Municipal supervisor	As Best-Value
	Warranty and maintenance by contractor	Warranty and maintenance by contractor			
Process	Standard contract terms and conditions (UAV)				
	Penalty and bonus possibilities				
		MEAT-criteria aimed at process			
		Minimization of information asymmetry by communication based on dominant information			
Social		Early start of process of socialization			
		Late moment of formalization			
		Key officials in a position that stimulates commitment			
		High level of freedom and autonomy for contractor			

4.2.2 The course of control, trust and risk-perception

During the project, trust, control and risk perception changes and shifts over time and with certain events. The model of Das & Teng shows that these aspects control the cooperation. The change in these aspects will therefore change the cooperation. In this paragraph the course of the cooperation is described by using the development of the aspects from the model; trust, control and risk perception. To do so, notable developments and changes in the cooperation in the cases will be highlighted here for the three cases together, to be able to place it in a broader perspective, and based on the phases of Best-Value. As cooperation is not in place during the planning phase, the first discussed phase will be the selection phase. The paragraph ends with a concluding Table 6. Here an overview is given of control and trust in each project and per phase. Some information in the table is based on the more detail description per case as can be found in Appendix 5.

Selection phase

The selection phase is a short period where the contractor wins trust from the municipality. This is true for all cases. Especially because of the interviews, all principals speak highly of the

willingness and commitment of the selected contractors, a form of goodwill trust and the lowering relational risk perception. For the case of Schouwen-Duiveland, the two bids caused confusion over the need for reinforcing the sheetpile wall. The second-opinion of both designs during this phase is a strong form of output control. Here, the municipality said to not necessarily distrust the contractor's competence; during the interview for this study they said they were convinced that both parties could make the needed calculations right, but were puzzled by how it was possible that they came back with different conclusions. The second-opinions shows that the municipality wasn't able to trust the contractor blindly and, mostly, saw a performance risk. Above all, they needed to explain this outcome, other than projected earlier, to in- and external stakeholders.

Pre-award phase

The pre-award phase between selecting one contractor and awarding the project was only fully present in the case of the breakwater structure in Amsterdam. There, the contractor clearly took the lead and the client gives the contractor the space to do so. In this process, the contractor makes sure he doesn't pass the client by keeping him informed and asking him actively for input and approval. In line with the method, the contractor leads the municipality through this phase. Because of the active involvement of the municipality, both goodwill trust as competence trust can flourish and the parties cooperate based on the development of a social contract and social control. In Nijmegen, this process of developing a social contract was enabled as both parties had to find their role and place in the construction team. The contract, in place for the construction team, kept the place, role and responsibilities of the parties rather vague. The absence of well-defined process- and product control stimulated the development of social control.

Execution phase

All cases start the execution phase with a high level of trust and, in the cases of Amsterdam and Nijmegen, strong social control in place. In Amsterdam, the use of *weeklys* helped both contractor as client to control the external risks that presented themselves. Because of this level of information sharing and key officials that were brought together by these external threads to the project goal, social control became stronger. Therefore, the needed contract changes didn't lead to difficult negotiations. In Nijmegen, after the Tender phase the process became more traditional, although parties worked together on an equal basis. The construction team produced a traditional set of traditional building specifications for the contractor. In this situation, product control by the client felt 'natural' in the same way it happens in traditional contracts. The trust-based relationship made that this control was a formality and meetings between client and contractor focussed on dealing with stakeholders and optimization of delivered quality. Due to the extensive construction team phase, there weren't much project and process risks during the execution phase. As for Schouwen-Duiveland, the most noticeable change in cooperation took place around the additional search for explosives on the project site. Here, the client was surprised by the implications on time and budget and some officials wanted to stop the project. This marked a moment were goodwill trust was low (it looked like a trick to some) and, consequently, relational risk perception high. The client responded with summoning the contractor to meet for clarification, which can be seen as a strong form of process control. During this and a following meeting, the contractor manages to recover most of the damage done. At least, relational risk perception is lowered. The fact that a supervisor from the municipality was present on the construction site from time to time can mean that goodwill trust wasn't recovered completely.

In general, both client and contractor look positively back at the project and see this situation as managed well.

In general, principals start aiming at process and product control in the tender phase for as far this is possible in BPV. As the project makes progress, levels of trust rise and risk perception lowers, clients feel less need to control the projects on behaviour and output. Here, the rise of trust, lowering of risk perception and less strict behaviour- and output control goes hand in hand with the development of social control. Control modes as well as control, risk and trust in general interact reciprocal.

Table 6: The course of control and trust per case and per phase, based on paragraph 4.2.2 and Appendix 5.

		Selection phase	Pre-award phase	Execution phase
Amsterdam	Control	The client starts both **process control** and **product control** in this phase by asking the contractor what he is going to deliver, why it is the best option and how he plans to realise it.	The client starts with **process control** by giving direction and feedback regarding the management plans of the contractor. Both parties show to be trustworthy so mutual trust grows and a process of socialization starts. This leads in a shift from process to **social control** in this phase.	Communication is based on weeklys during this phase and the performance controlled by systems engineering, forms of **process control**. **Social control** enabled the parties to renegotiate the contract relatively easy and team-up to manage external risks to the project goals due to unforeseen problems regarding permits.
	Trust	The client speaks high of both competence and goodwill of the contractor after the interview. A basis of trust to start the pre-award phase.	Both parties do their utmost to show the other party to be willing and able to make the best of the project. Therefore, **goodwill trust** and **competence trust** rise. A private assignment from the client and the start of executional works while the pre-award phase wasn't officially completed show the goodwill of both parties.	Due to the weeklys and systems engineering, the client had up-to-date information about the status of the project provided by the contractor. This insight and availability of information by itself made levels of trust rise. **Goodwill trust** was essential for smooth renegotiation of the contract as for both sides, opportunistic behaviour was easy to suspect from the other.
Nijmegen	Control	The client focussed on **process control** during this phase, especially on the vision on cooperation and stakeholder management.	In the construction team, the client kept control over the design process initially. The contractor found his role in pro-actively supporting this process and gradually taking over tasks relating to design and stakeholder management. Control shifted from **product control** to **social control**.	Formally, the client controlled the execution by traditional **product control**. As high levels of trust were in place, enabling **social control**, product control in practice was minimized.
	Trust	The selection process focussed on the vision on cooperation between contractor and client. The client selected the contractor whose vision matched theirs the best. Trust, especially in the goodwill of the selected contractor was present as it was an implicit selection criterion.	Each party on the table had to find its role in the process of the construction team and these roles evolved. The contractor gradually took over more tasks and brought in his expertise. This satisfied the client and led to trust.	The relationship between client and contractor was formally a traditional one, but after the satisfying construction team phase and the social control that came with it, levels of trust made that traditional forms of control felt unnecessary to both parties.
Schouwen-Duiveland	Control	The client starts both **process control** and **product control** in this phase by asking the contractor what he is going to deliver, why it is the best option and how he plans to realise it. The more informal interview setup enabled **social control** relatively early. The client showed a strong version of **product control** by recalculating the sheetpile design solution.	not present	Control during the execution phase started based on **social control**. The client and the contractor had irregular formal and informal contact about the project and plans to prepare execution were made by the contractor. The rather unexpected consequences of extra work related to possible explosives led to a rapid shift towards strict **process control**. When levels of trust recovered, control was present based on a mix of **social control** and **process control**.
	Trust	Especially due to the interview, levels of trust rose at both sides of the table. The recalculation by an external party wasn't imposed to a lack of trust, but rather due to a high-risk perception.	not present	Initially, high levels of trust made social control possible. The extra work presented by the contractor vaporised **goodwill trust**. The contractor could restore some of the trust which led to a more balanced form of control.

5 Discussion

This chapter places the results described in the previous chapter in light of the literature.

5.1 Social control in best-value

According to the theory of Das & Teng, cooperating parties with different goals and non-shared equity tend to rely on product (output) control instead of process control. As parties don't work closely together in these kind of alliances, process control is hard compared to product control. The relationship in construction projects can be seen as such an alliance where parties cooperate but based on their individual interests, barely shared tasks and responsibilities and at arm's length. Due to the lack of knowledge of and insight in the other's process, these alliances tend to control the cooperation based on product (output) control. Traditional construction projects based on traditional building specifications are an example of this. In best-value however, this output control is hard, the client is seen as layman and needs the contractor as expert. Therefore, knowledge and measurability of the product is low, hence hard to control. Therefore, the initial risk perception in these projects will be high as both process control and product control aren't possible to a desired extend. Best-value projects, therefore, rely on social control and consequently the development of trust and the minimization of risk perception. The results of the study showed that clients in all projects initially searched for certainty regarding process and product, while the method used made levels of trust rise and lowered levels of risk perception. This enabled the process of socialization and informal based control.

Multiple aspects of the Best-Value-process enable the development of social control. In the three projects, the interviews formally aim at competence trust. By asking questions about risks and the reason behind the bid, the municipality tries to gain more knowledge about why the contractor thinks his solution is the best for the problem and how it is in line with the project goals. The contractor can earn points for the MEAT-criterion based on these aspects. However, in the interviews for this study, the key officials of the municipality were most enthusiastic about the possibility to meet the contractor in person and see his 'drive', 'connection' and 'passion'. Although this is not officially assessed. These aspects can be linked to goodwill trust and form an important aspect for the start of the process of socialization. There is, therefore, a big discrepancy between the way the interview contributes to the selection procedure and improving the chance of establishing a good and cooperative relationship on one hand, and the way the principal should assesses the interview formally on the other. This is as the municipality is bound to the European fundamental principles of public procurement of non-discrimination, equal treatment and transparency which make assessing of 'soft' aspects like goodwill and the connection between key officials hardly possible while it should be doubted whether this is desirable in the light of public procurement principles.

The interview forms a strong basis for trust and partly the start of the process of socialization. However, in the cases of Amsterdam and Nijmegen, this was merely the case at the side of the principal. Due to the formal and strict setting, there was barely opportunity for the contractor to get to know the client better. Of course, as trust (or a lower risk perception) is needed from the side of the principal to make Best-Value possible in the first place, it is understandable that the process concentrates on lowering the risk perception from the client. The contractor tries to convince the municipality of his competence and goodwill. But really starting the process of (mutual) socialization is hard in this setting.

5.2 Formal control as a source of trust

Das & Teng present a model in which both product- and process control in cooperation should be minimized. These control-modes show and cause a lack of trust while the impact on the level of perceived risk is limited. The results of this study showed that there is reason to add nuance to this.

First, in all projects, certain levels of product and process control were in place. In contrary to the presented model of Das & Teng, these control forms didn't necessarily originate from distrust from one party into another. As the contractor writes the contract, the contractor specifies the way the client controls him. Or, the contractor controls himself. In this process, the contractor shows the client to be trustworthy and the control that is in place during the execution phase doesn't feel like a sign of lack of trust. The contractor defined it himself. It should furthermore be pointed-out that due to the habits in construction projects, contractors are used to control by the client and, in integrated contract forms, used to these forms of 'self-control'.

Second, formalization and the moment of fundamental transformation can be a source of trust as it ends the period of cooperation without strict obligations. Formalization settles the cooperation and formally shifts responsibility to the contractor. Until the awarding of the project, both parties face the risk of the other party ending the cooperation by stepping out of the pre-award phase, although this chance is low. With closing the contract, both parties show that their efforts in the previous phases had been genuine.

A third form of formal control is the use of dominant information. The best-value method says that dominant information is needed to be able to select the best expert. Furthermore, the use of dominant information makes, according to the method, decision making unnecessary and keeps the client informed through risk-based information in the *weeklys*. Especially the use of these *weeklys* can be seen as a form of process control. The cases showed that this form of communication lowered risk perception and stimulated levels of trust. In Amsterdam, the client was very pleased with the weekly updated insight in the status of the project. Based on risks, the possible implications were clear to both parties and this stimulated both client and contractor to respond well to the occurring permit-related risks, stimulating trust and cooperation. On the other side, the case of the jetty in the case of Schouwen-Duiveland showed why this form of communication is important. The client was surprised by the implications on time and budget of the risks due to explosives on the project site. In this project, communication wasn't based on risks or a *weekly*-like format. The use of dominant information as a form of process control during the execution phase could have prevented this. In that case, the contractor would have been stimulated to present possible implications in terms of time and budget from the moment the risk was recognized. Furthermore, these implications and possible scenarios would have been updated week by week to incorporate new information. This would have prevented the surprise and allowed both parties to work on optimal control of the risk. Above all, it would have stimulated the contractor to keep the project goals and client interest in mind and regard the situation from the client's viewpoint.

5.3 Steering by the client

Although best-value sees involvement and steering of the client in the project as risk, the method makes this possible in multiple ways. First, during the pre-award phase client and contractor need to agree on the detailed starting points of the project as well as on the risks and (fair) allocation of these risks. Here, the contractor can lay focus on specific risks or the way requirements find their way into the contract in more detail. In this stage, both parties

face the risk that the other steps out of the process if they can't agree on requirements and risks.

Formal control can hinder the process of cooperation. This was most clearly seen in the project in Amsterdam where the contractor faced a penalty per day delay. When it became clear that delay was unavoidable, the contractor wanted to change the contract and both parties had to agree on this. In this process, interests of the client and contractor drifted apart and focus shifted from the project goal towards individual interests as financial consequences. This stimulated behaviour where parties look for ways to pass the responsibility on to the other party instead of cooperating to see how the problem can be solved and who can take this responsibility best, based on knowledge, skills or position.

5.4 Limitations and further research

Here, limitations of this research and, consequently, its results and conclusions are discussed.

First of all, the results are based on a limited amount of data, as only three cases were studied for the research. In order to draw more conclusions in general, more cases need to be studied. Other than the number of cases, also the kind of cases could differ. The presented cases were all similar in size, measured in contract value. Furthermore, overall seen, all cases resulted in an acceptable and outcome in relative good cooperation. Studying cases where cooperation faced difficulties or where involved parties weren't satisfied with the project result (in terms of process or product) can shed another light on the aspects of control, risk perception and trust and its influence on cooperation in BVP-projects.

Second, the model presented by Das & Teng was used to study control and its influence on cooperation. Other models could have brought other aspects of importance to light. It will be interesting to study the same and other cases with the use of other models, e.g. social exchange theory or models that focus on control of opportunism

Third, an important part of the data collection was based on interviews with direct involved persons in each project. Therefore, the information they presented relied on their memory, bias and could have been influenced by personal interest and agendas. Furthermore, access was granted to official documents including internal documents in all cases, but access to unofficial in- and external correspondence would have given more insight in possible different and developing views and positions within parties. By applying triangulation by using both documents as multiple interviews with different persons, this threat to internal validity and internal reliability was tried to be minimalized, but not excluded.

In general, in this field of research, situations can't be doubled to form, for example, a control project. It is impossible to do the same construction project twice, change one variable and compare the results. Therefore, external validity and external reliability will remain a problem. A possible way to be able to generalize some of the conclusions is by studying presented conclusions in a rather quantitative approach over a great number of projects and make a statistical analysis.

6 Conclusion

Municipalities search for new procurement- and project delivery methods to meet modern requirements to governance. Best-value procurement is named by scholars and municipalities as one of the methods that can provide an answer in this search. Best-value forms an integrated approach for projects, changes the way client and contractor cooperate and the way this cooperation is controlled. This study tried to find-out how different control-modes, enabled by and integrated in the best-value method, changes the cooperation between client and contractor in municipal construction projects and how this cooperation is controlled.

In Best-Value project, the contractor is seen as expert who leads the client through the project. Therefore, the clients search the contractor who can solve the client's problem and fulfil the project goals best. To do so, the client specifies the problem and the project goals during the tender phase instead of a detailed set of requirements or a detailed description of the product. The method assumes the contractor knows best how to solve the problem and therefore aims at giving maximum freedom to the contractor to enable him to do so.

Interorganizational cooperation is explained by Das & Teng (2001) using a model containing underlying aspects of control, trust and risk perception. Using this model, the influence of different forms of control on trust and control on risk perception can be seen. This allowed explanation of how forms of control influenced the cooperation between client and contractor. Literature shows that best-value adds informal modes of control to the more traditional set of formal control modes used in traditional and standard integrated project approaches. This informal control by itself allows less formal control to be in place as risk perception lowers and levels of trust rise. Furthermore, the used forms of formal control focus on risk-based information sharing and the contractual control modes in general are a product of agreement between client and contractor. To do so, best-value projects include a phase without contractual base where contractor and client work together on the contract and risk dossier. Instead of a classical contract describing the desired product in detail, a more general contract is drawn-up based on the project goals and the risk dossier aiming at arranging the cooperation between the parties.

Three construction projects were studied to see how Best-Value changes control and cooperation in practice and what the results are. In all cases, the used method enabled informal control in the projects. The procurement-phase lowered the perception of risks while levels of trust increased. This resulted in less formal control and the space for informal control to grow, which allowed dealing with unforeseen circumstances in cooperation between client and contractor. However, when unforeseen circumstances arose parties were seen to be inclined to revert to more traditional forms of formal control, indicating a lack of trust in the other party. Overall, informal forms of control showed to have a positive effect on the interorganizational cooperation. Formal forms of control can have a negative effect on interorganizational cooperation but don't necessarily do so. In the studied cases, both formal as informal control was present. These control modes showed to complement each other so that also formal control was able to improve the interorganizational cooperation, this in contrary to the used theoretical framework by Das & Teng.

In general, performance of construction projects will benefit from a balanced set of control forms, including both formal and informal control. Therefore best-value, as method that enables the use of formal control in construction projects, is a useful extra option when considering procurement methods. Especially when the project faces hard to predict external

uncertainties and risks. Best-values makes it possible for the client and contractor to cooperate during unforeseen circumstances, whereas more traditional projects and traditional contracts would need renegotiation to include the solution for the arose situation in the contract. Also, best-value makes it possible for municipalities to switch to more integrated project approaches more easily, as expensive and time-consuming systems for detailed requirement description, analysis and management isn't needed.

6.1 Recommendations

Here, recommendations are made based on the results of this study.

- Balance the mix of control forms
  This study learned that construction projects profit from a balanced set of both formal as well as informal control forms. Traditional procurement and project delivery methods do not stimulate the process of growing informal forms of control or even hinder it. If more cooperation between client and contractor is desired, parties should create an environment that enables social control. This can be done, for example by, focussing the contract and communication more on the project goals, including a phase where parties work together without a contractual base but with mutual dependence and/or creating an environment where parties can discuss and understand individual as well as mutual interests. Furthermore, more traditional formal forms of control don't necessarily hinder cooperation and can be a source of trust or lower risk perception when applied well-balanced and designed in cooperation.

- Guard against traditional reflexes
  The principal should be crystal-clear about the expected behaviour and roles of the parties involved in the project, including that of her own, before starting the project. All parties should then constantly monitor their own role and behaviour as well as that of others and guard together against traditional reflexes.

- Add Best-Value to the existing toolbox
  Principals should determine what kind of process and relationship the project needs on forehand, based on project goals and project risks. Best-Value is not the answer for all projects and should just be added to the existing options and used when the project asks for it. Best-value can especially be a useful method when the client's knowledge about the product is low or when external factors may impose risks to the project that cannot be overseen on forehand and cooperation between client and contractor is desired.

- Beware of shopping a method together
  Best-value is a quite balanced method where both formal as informal control forms enable parties to cooperate when needed while creating freedom for the involved expert to do what he can do best. If the client decides to alter the method, e.g. leaving-out the pre-award phase, shifting responsibilities or alter the forms of communication, be aware of the possible consequences as it may result in an unbalanced approach, hindering cooperation and an unsatisfying project result. Simply shopping elements of different methods together should (if necessary in the first place) be done with care.

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Appendix 1 Translation of specific terms

Dutch	English
Bouwbestek	Traditional building specifications
Bouwteam	Construction team
Concretiseringsfase	Pre-award phase
Gemeente	Municipality
Gunning	Awarding
Inschrijving	Bid
Omgevingsvergunning	Environmental permit
Onderhandse opdracht	Private assignment
Opdrachtgever	Principal (ex ante)
Opdrachtgever	Client (ex post)
Prestatieonderbouwing	Performance plan
Programma van eisen	Set of requirements
Risicodossier	Risk dossier
Sleutelfunctionaris	Key official
Vraagspecificatie	Tender specification
VTW (verzoek tot wijziging)	Request to change the contract
Welstandscommissie	The commission that decides on the external appearance of buildings and structures
Werkplan flora en fauna	Execution plan regarding flora and fauna

English	Dutch
Awarding	Gunning
Bid	Inschrijving
Client (ex post)	Opdrachtgever
Construction team	Bouwteam
Environmental permit	Omgevingsvergunning
Execution plan regarding flora and fauna	Werkplan flora en fauna
Key official	Sleutelfunctionaris
Municipality	Gemeente
Performance plan	Prestatieonderbouwing
Pre-award phase	Concretiseringsfase
Principal (ex ante)	Opdrachtgever
Private assignment	Onderhandse opdracht
Request to change the contract	VTW (verzoek tot wijziging)
Risk dossier	Risicodossier
Set of requirements	Programma van eisen
Tender specification	Vraagspecificatie
The commission that decides on the external appearance of buildings and structures	Welstandscommissie
Traditional building specifications	Bouwbestek

Appendix 2 Survey results (in Dutch)

Ter inventarisatie is een enquête verspreid onder de leden van Stadswerk en de doelgroep van dit onderzoek op LinkedIn. De enquête had als doel een beeld te vormen van de huidige situatie op het gebied van prestatieinkoop en bouwteams onder Nederlandse gemeenten.

De enquête is op donderdag 24 september gestuurd naar 2245 bij Stadswerk bekende e-mailadressen bij 336 organisaties, waarvan 190 gemeentelijke. Er is een herinnering verstuurd op 20 oktober. Daarnaast is een link naar de enquête gedeeld in de LinkedIn groep 'Aanbesteden & Contracteren in de Bouw' met circa 6.700 volgers. Invullen van de enquête was mogelijk tussen 24 september en 6 november. Uit serverstatistieken blijkt dat de enquête in die tijd 311 keer is geopend door 275 unieke bezoekers. Van hen waren 19 afkomstig van de LinkedIn groep. De rest vanuit het netwerk van Stadswerk.

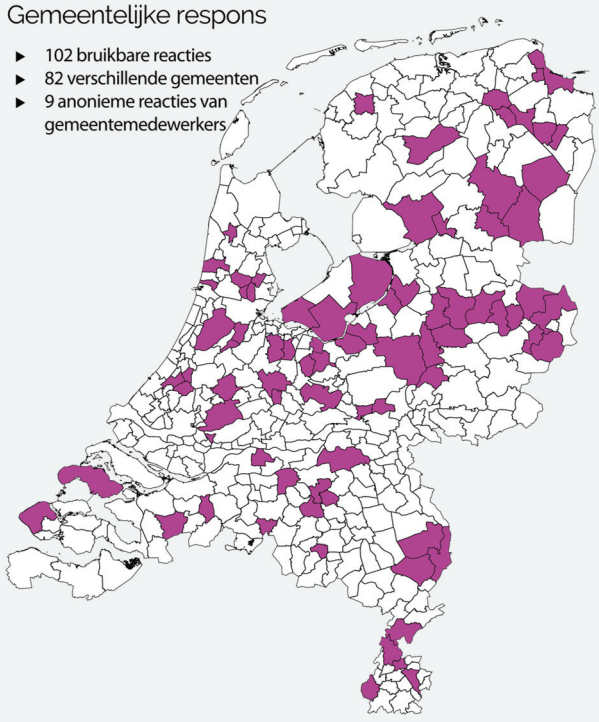
Enkele resultaten

Van de enquêteresultaten is geen uitgebreide statistische analyse gemaakt. Het doel was een globaal beeld te vormen van het gebruik van prestatieinkoop bij gemeenten en aan de hand van de enquête de richting van dit onderzoek te verscherpen. Omdat deze richting nog niet geheel duidelijk was op dat moment ging een deel van de enquête ook over het gebruik van bouwteams. Daarnaast zijn enkele algemenere vragen over het aanbesteden en de rol van gemeenten toegevoegd.

Hieronder volgt een samenvatting van de belangrijkste resultaten alsmede enkele opvallende resultaten.

Algemeen

- 142 resultaten waarvan 102 bruikbare reacties (respondenten die werken bij (of in opdracht van) een gemeente en betrokken zijn bij aanbestedingen). Zie voor een overzicht van de gemeentelijke respons Figuur 1.
- 80% ziet in een aannemer een waardevolle projectpartner om de kwaliteit te verhogen
- 62% vindt een aannemer goed in staat projecten te overzien en passende oplossingen voor te stellen
- 66% staat achter geïntegreerd uitbesteden, maar afhankelijk van de functie zijn er wel verschillen. Zo zijn projectleiders en (externe) adviseurs positief maar zijn beheerders, (beleids)medewerkers en teamleiders sterk verdeeld.
- Enkel nog een regiefunctie in het beheer van de openbare ruimte ziet 67% niet zitten. Ook hier is een sterke spreiding over de functies beschikbaar. Driekwart van de reagerende (extern) adviseurs zijn juist voor. Beleidsmedewerkers en ondervraagden op managementniveau zijn het met elkaar oneens, terwijl beheerders en projectleiders overwegend tegen zijn.



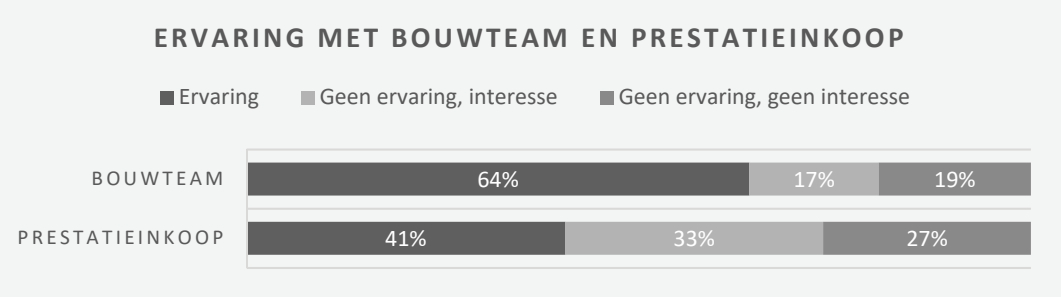
Figuur 1 - Overzicht van respons door medewerkers van gemeenten (gekleurd = bruikbare reactie ontvangen)

Prestatieinkoop

- 41% van de reagerende gemeenten heeft prestatieinkoop toegepast (34 gemeenten)
  - Van deze groep respondenten heeft 38% 1 of 2 keer prestatieinkoop toegepast
    36% heeft iets meer ervaring met 3 tot 5 keer
    17% heeft meer ervaring opgedaan met prestatieinkoop en de methodiek vaker dan 8 keer toegepast
- Nog eens 27% zegt zodanig geïnteresseerd te zijn in de methodiek dat ze willen onderzoeken of toepassing bij hen mogelijk is. Figuur 2 laat zien hoeveel respondenten ervaring

hebben of geïnteresseerd zijn in het bouwteam en prestatieinkoop.

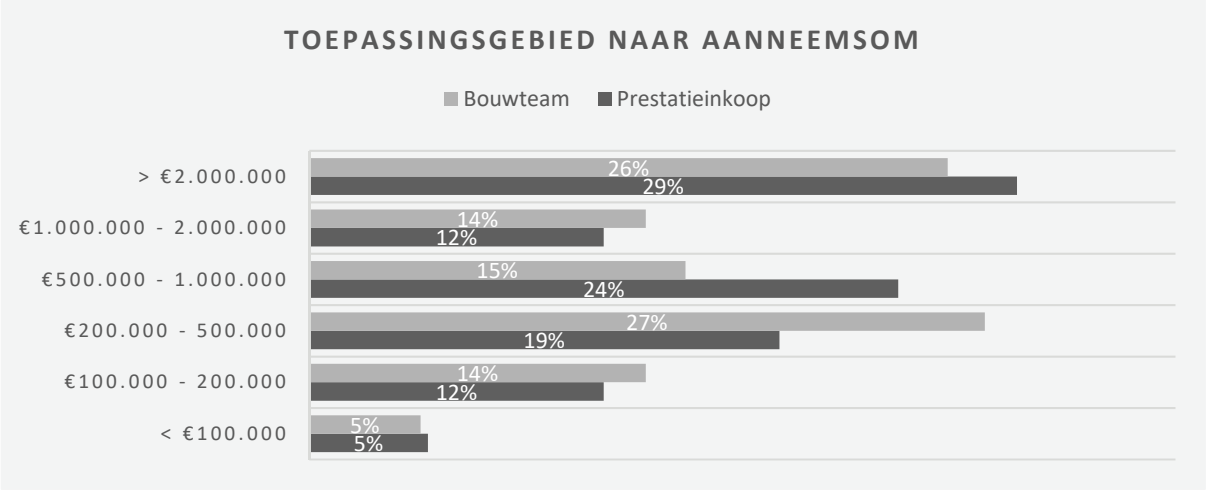
- Een van de elementen van prestatieinkoop, interviews als onderdeel van de aanbesteding, is door 63% van de reagerende gemeenten toegepast.
- 76% van de toepassers van prestatieinkoop is tevreden over de methodiek en geeft het een 7 of hoger
- Het toepassingsgebied, op basis van aanneemsom, is breed voor prestatieinkoop. Het diagram in Figuur 3 laat dit zien.



Figuur 2 - Ervaring met bouwteam en prestatieinkoop van respondenten

Het bouwteam

- 61% van de reagerende gemeenten heeft ervaring met het bouwteam
  - Van deze groep respondenten heeft 61% 1 of 2 keer het bouwteam toegepast
    20% heeft iets meer ervaring met 3 tot 5 keer
    10% 5 tot 8 keer
    10% heeft de methodiek vaker dan 8 keer toegepast
- Nog eens 27% zegt zodanig geïnteresseerd te zijn in de methodiek dat ze willen onderzoeken of toepassing bij hen mogelijk is.
- Een van de elementen van prestatieinkoop, interviews als onderdeel van de aanbesteding, is door 63% van de reagerende gemeenten toegepast.
- 76% van de toepassers van prestatieinkoop is tevreden over de methodiek en geeft het een 7 of hoger
- Het toepassingsgebied, op basis van aanneemsom, is breed voor het bouwteam. Het diagram in Figuur 3 laat dit zien.



Figuur 3 - Toepassingsgebied van bouwteam en prestatieinkoop naar aanneemsom

Vragenlijst

De vragenlijst van de enquête is hierachter toegevoegd. De enquête is gemaakt voor het verspreiden en reageren op digitale wijze. Hierbij is gebruik gemaakt van de mogelijkheid om

gebruikers vragen te stellen op basis van hun eerder gegeven antwoorden en antwoordmogelijkheden in willekeurige volgorde weer te geven. Dit komt de lengte en leesbaarheid van de enquête op papier niet ten goede.

Appendix 3 Survey Questions (in Dutch)

Samenwerking in Best Value en Bouwteam

Deze enquête is onderdeel van een afstudeeronderzoek naar de mogelijkheden van samenwerking en co-creatie in Best Value Procurement (BVP) en bouwteams. De enquête is bedoeld voor professionals die betrokken zijn bij aanbestedingen op het gebied van openbare werken/infrastructuur bij lagere overheden (voornamelijk gemeenten).
Het onderzoek wordt uitgevoerd door Mark Kloosterboer, student Construction Management & Engineering aan de Universiteit Twente, bij Vereniging Stadswerk Nederland.

- U kunt de enquête ook invullen als u geen kennis of ervaring heeft met BVP of Bouwteams!
- De enquête neemt maximaal 10 minuten van uw tijd in beslag
- Geen enkel antwoord is fout, ik ben op zoek naar uw mening
- Gelieve zoveel mogelijk vragen in te vullen. Heeft u geen mening, sla de vraag dan over
- Alle gegevens worden anoniem verwerkt en zijn enkel toegankelijk voor medewerkers aan dit onderzoek
- Wanneer u persoonsgegevens invult, worden deze enkel gebruikt om tijdens het onderzoek contact op te nemen (bijv. voor een interview) of u verder te informeren. Dit is niet verplicht.

Alvast bedankt voor uw bijdrage!

Voor meer informatie, vragen of suggesties: mark.kloosterboer@stadswerk.nl

*Vereist

Algemeen

1. **2.1 Bij wat voor organisatie bent u werkzaam?** *
   Markeer slechts één ovaal.
   - ◯ Gemeente
   - ◯ Provincie
   - ◯ Adviesbureau
   - ◯ Koepel- of belangenorganisatie
   - ◯ Aannemer
   - ◯ Anders: _____

2. **2.2 Hoe heet de organisatie?**
   Bijvoorbeeld: gemeente Amsterdam
   _____

3. **2.3 Wat is uw functie?** *
   Markeer slechts één ovaal.
   - ◯ Afdelingshoofd
   - ◯ Teamleider
   - ◯ Projectleider
   - ◯ Beleidsmedewerker
   - ◯ Beheerder
   - ◯ Adviseur
   - ◯ Anders: _____

4. **2.4 Bent u als (of namens) een opdrachtgever betrokken bij aanbestedingen van openbare werken/infrastructuur?** *
   Markeer slechts één ovaal.
   - ◯ Ja *Ga naar vraag 6.*
   - ◯ Nee *Ga naar vraag 5.*
   - ◯ Nee, maar als opdrachtnemer *Ga naar vraag 39.*

Kan een collega mij verder helpen?

Dank u wel voor het meedoen aan deze enquête. Ik ben op dit moment helaas op zoek naar mensen die betrokken zijn bij aanbestedingsprocessen.

Ik vraag u vriendelijk of u de uitnodiging voor deze enquête wilt doorsturen aan een afdeling of collega die mij verder kan helpen.

Heeft u vragen of opmerkingen? Neem contact met mij op via mark.kloosterboer@stadswerk.nl

Klik op 'Verzenden' om de enquête op te slaan en af te sluiten.

5. **3.1 Wilt u op de hoogte blijven van de ontwikkelingen van dit onderzoek? Vul dan hieronder uw e-mailadres in om u in te schrijven voor de Stadswerk nieuwsbrief:**
   De nieuwsbrief verschijnt 10x per jaar
   _____

Stop met het invullen van dit formulier.

Aanbesteden algemeen

Bij de volgende vragen wordt uw mening gevraagd over diverse aspecten van aan- en uitbesteden van openbare werken.

Het gaat hier om uw mening. Geen enkel antwoord is dus fout of ongewenst. Heeft u geen mening? Sla de vraag dan over.

6. **4.1 In de ontwerpfase van een project is een aannemer vaak een waardevolle partner om de kwaliteit van het project te verhogen**
   Denk bij kwaliteit bijvoorbeeld aan: doorlooptijd, kosten, uitvoerbaarheid, klanttevredenheid
   Markeer slechts één ovaal.
   - ◯ Eens
   - ◯ Oneens

7. **4.2 Een aannemer is goed in staat het gehele project te overzien en geschikte oplossingen voor te stellen**
   Bijvoorbeeld: het afwegen van diverse belangen, omgevingsmanagement, technisch management etc.
   Markeer slechts één ovaal.
   - ◯ Eens
   - ◯ Oneens

8. **4.3 Het is goed als een gemeente of provincie taken op het gebied van openbare werken geïntegreerd uitbesteedt**
   Denk aan verregaande uitbesteding van het ontwerp, onderhoud en beheer
   Markeer slechts één ovaal.

   - Eens
   - Oneens

9. **4.4 Een gemeente of provincie moet in de toekomst enkel nog een regierol hebben op het gebied van openbare werken**
   Markeer slechts één ovaal.

   - Eens
   - Oneens

10. **Wilt u iets toelichten bij de gegeven antwoorden, dan kan dat hieronder:**

Best Value Procurement

Best Value Procurement (BVP) of prestatieinkoop is uitbesteden van werk aan de de best presterende aanbieder. Enkele kenmerken:

- De aanbieder wordt gezien als de expert en heeft een leidende rol in het proces.

- De aanbieder biedt een oplossing aan op basis van een kerndocument/inschrijvingsleidraad (projectdoelstelling, scope, globale planning, (vaak) een plafondbedrag en wegingsfactoren).

- De aanbieding bestaat uit de beschrijving van de oplossing, het risicodossier, het kansendossier, de interviews en de prijs. Dit kan worden aangevuld met een planning en/of 'prestatie-onderbouwing' waarin de aanbieder onderbouwt waarom hij geschikt is om de doelstellingen van het project te realiseren.

- De plannen zijn maximaal enkele A4'tjes.

- De beste aanbieder werkt de globale plannen verder in detail uit tijdens de concretiseringsfase. In deze fase leidt de aanbieder het proces.

11. **5.1 Heeft u of uw organisatie projecten aanbesteed/uitgevoerd met BVP?** *
    Hierbij gelden ook van de methodiek afgeleide vormen
    Markeer slechts één ovaal.

    - Ja *Na de laatste vraag in dit gedeelte ga je naar vraag 14.*
    - Nee, maar ik ben wel geïnteresseerd in de methodiek *Na de laatste vraag in dit gedeelte ga je naar vraag 24.*
    - Nee *Na de laatste vraag in dit gedeelte ga je naar vraag 25.*

12. **5.2 Heeft u of uw organisatie projecten aanbesteed waarbij een plafondbedrag is meegegeven aan de markt?** *
    Markeer slechts één ovaal.

    - Ja
    - Nee

13. **5.3 Heeft u of uw organisatie projecten aanbesteed waarbij interviews onderdeel uitmaakten van het aanbestedingsproces?** *
    Markeer slechts één ovaal.

    - Ja
    - Nee

Best Value Procurement

U heeft aangegeven ervaring te hebben met BVP

14. **6.1 Hoe vaak is BVP toegepast binnen uw organisatie in de afgelopen 3 jaar?** *
    Ongeveer
    Markeer slechts één ovaal.

    - 1 - 2 maal
    - 3 - 5 maal
    - 6 - 8 maal
    - Anders:

15. **6.2 Voor welke projectomvang werd BVP voornamelijk ingezet (aanneemsom)?** *
    Ongeveer
    Markeer slechts één ovaal.

    - < €100.000
    - €100.000 - €200.000
    - €200.000 - €500.000
    - €500.000 - €1.000.000
    - €1.000.000 - €2.000.000
    - > €2.000.000

16. **6.3 Wat waren de belangrijkste redenen om BVP toe te passen?**

17. **6.4 Hoe tevreden bent u over BVP als methodiek?** *
    Markeer slechts één ovaal.

	1	2	3	4	5	6	7	8	9	10	
Zeer ontevreden											Zeer tevreden

18. **6.5 Ik zou BVP in de toekomst...** *
Markeer slechts één ovaal.

- ◯ Meer toepassen
- ◯ Even veel toepassen
- ◯ Minder toepassen
- ◯ Niet toepassen

Best Value Procurement

Hieronder volgt een aantal stellingen over BVP. De stellingen zijn gebaseerd op de successen die BVP 'claimt' te hebben. Ik ben benieuwd naar uw mening daarover.

19. **7.1 Stelling: BVP leidt tot een betere samenwerking en afstemming in de keten**
Markeer slechts één ovaal.

	1	2	3	4	
Helemaal oneens	◯	◯	◯	◯	Helemaal eens

20. **7.2 Stelling: BVP leidt tot meer mogelijkheden voor de opdrachtnemer om zich te onderscheiden van zijn concurrenten**
Markeer slechts één ovaal.

	1	2	3	4	
Helemaal oneens	◯	◯	◯	◯	Helemaal eens

21. **7.3 Stelling: BVP leidt tot minder meerwerk en minder vertraging**
Markeer slechts één ovaal.

	1	2	3	4	
Helemaal oneens	◯	◯	◯	◯	Helemaal eens

22. **7.4 Stelling: BVP leidt tot een hogere klanttevredenheid**
Markeer slechts één ovaal.

	1	2	3	4	
Helemaal oneens	◯	◯	◯	◯	Helemaal eens

23. **7.5 Wilt u iets toelichten bij uw gegeven antwoorden, dan kan dat hieronder**

_____

_____

_____

_____

_____

Ga naar vraag 26.

Best Value Procurement

U heeft aangegeven geen ervaring te hebben met BVP maar wel interesse te hebben in de methodiek.

24. **8.1 Wat maakt dat u wel geïnteresseerd bent?**
Meerdere antwoorden mogelijk
Vink alle toepasselijke opties aan.

- ☐ Ik wil onderzoeken of BVP interessant is voor mijn organisatie
- ☐ De mogelijke voordelen van BVP
- ☐ Ik wil graag iets nieuws te weten komen
- ☐ Ik wil BVP introduceren in mijn organisatie
- ☐ Ik krijg er (binnenkort) mee te maken
- ☐ Anders: _____

Ga naar vraag 26.

Best Value Procurement

U heeft aangegeven geen ervaring te hebben met BVP en geen interesse te hebben in de methodiek.

25. **9.1 Kunt u aangeven waarom niet?**
Meerdere antwoorden mogelijk
Vink alle toepasselijke opties aan.

- ☐ Ik denk dat het mij of mijn organisatie niets oplevert
- ☐ BVP heeft voor mij geen goed imago
- ☐ Er zijn al genoeg andere bouworganisatievormen
- ☐ Ik wil me hier niet in verdiepen
- ☐ Er zijn al genoeg andere aanbestedingsmethoden
- ☐ Ik ben onbekend met BVP
- ☐ Het is niet mijn vakgebied
- ☐ Anders: _____

Ga naar vraag 26.

Het bouwteam

Het bouwteam is een bouworganisatievorm waarin diverse partijen samenwerken aan een ontwerp. De betrokken partijen zijn (vaak) de opdrachtgever, aannemer, architect en/of adviesbureau. Een bouwteam werkt een programma van eisen of voorontwerp verder uit. De samenwerking in het proces moet de afstemming tussen de partijen optimaliseren waardoor een integrale aanpak kan ontstaan.

26. **10.1 Heeft u of uw organisatie projecten uitgevoerd op basis van een bouwteam?** *
Hierbij gelden ook van de methodiek afgeleide vormen
Markeer slechts één ovaal.

- ◯ Ja *Ga naar vraag 27.*
- ◯ Nee, maar ik ben wel geïnteresseerd in de methodiek *Ga naar vraag 37.*
- ◯ Nee *Ga naar vraag 38.*

Ga naar vraag 27.

Het bouwteam

U heeft aangegeven ervaring te hebben met het bouwteam

27. **11.1 Hoe vaak is het bouwteam toegepast door uw organisatie in de afgelopen 3 jaar?** *
Ongeveer
Markeer slechts één ovaal.

- ◯ 1 - 2 maal
- ◯ 3 - 5 maal
- ◯ 6 - 8 maal
- ◯ Anders: _____

28. **11.2 Voor welke projectomvang werd het bouwteam voornamelijk ingezet (aanneemsom)?** *
Markeer slechts één ovaal.

- ◯ < €100.000
- ◯ €100.000 - €200.000
- ◯ €200.000 - €500.000
- ◯ €500.000 - €1.000.000
- ◯ €1.000.000 - €2.000.000
- ◯ > €2.000.000

29. **11.3 Wat waren de belangrijkste redenen om het bouwteam toe te passen?**

_____
_____
_____
_____
_____

30. **11.4 Hoe tevreden bent u over het bouwteam als methodiek?** *
Markeer slechts één ovaal.

	1	2	3	4	5	6	7	8	9	10	
Zeer ontevreden	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	Zeer tevreden

31. **11.5 Ik zou het bouwteam in de toekomst...** *
Markeer slechts één ovaal.

- ◯ Meer toepassen
- ◯ Even veel toepassen
- ◯ Minder toepassen
- ◯ Niet toepassen

Het bouwteam
Hieronder volgt een aantal stellingen over het bouwteam.

32. **12.1 Stelling: het bouwteam leidt tot meer mogelijkheden voor de opdrachtnemer om zich te onderscheiden van zijn concurrenten**
Markeer slechts één ovaal.

	1	2	3	4	
Helemaal oneens	◯	◯	◯	◯	Helemaal eens

33. **12.2 Stelling: het bouwteam leidt tot minder meerwerk en minder vertraging**
Markeer slechts één ovaal.

	1	2	3	4	
Helemaal oneens	◯	◯	◯	◯	Helemaal eens

34. **12.3 Stelling: het bouwteam leidt tot een hogere klanttevredenheid**
Markeer slechts één ovaal.

	1	2	3	4	
Helemaal oneens	◯	◯	◯	◯	Helemaal eens

35. **12.4 Stelling: het bouwteam leidt tot een betere samenwerking en afstemming in de keten**
Markeer slechts één ovaal.

	1	2	3	4	
Helemaal oneens	◯	◯	◯	◯	Helemaal eens

36. **12.5 Wilt u iets toelichten bij uw gegeven antwoorden, dan kan dat hieronder**

_____
_____
_____
_____
_____

Ga naar vraag 52.

Het bouwteam
U heeft aangegeven geen ervaring te hebben met bouwteams maar wel interesse te hebben in de methodiek.

37. **13.1 Wat maakt dat u wel geïnteresseerd bent?**
Meerdere antwoorden mogelijk
Vink alle toepasselijke opties aan.

- ☐ Ik krijg er (binnenkort) mee te maken
- ☐ Ik wil het bouwteam introduceren in mijn organisatie
- ☐ Ik wil graag iets nieuws te weten komen
- ☐ De mogelijke voordelen van het bouwteam
- ☐ Ik wil onderzoeken of het bouwteam interessant is voor mijn organisatie
- ☐ Anders: _____

Ga naar vraag 52.

Het bouwteam

U heeft aangegeven geen ervaring te hebben met bouwteams en geen interesse te hebben in de methodiek.

38. **14.1 Kunt u aangeven waarom niet?**
Meerdere antwoorden mogelijk
Vink alle toepasselijke opties aan.

- [ ] Er zijn al genoeg andere methoden
- [ ] Het is niet mijn vakgebied
- [ ] Het bouwteam heeft voor mij geen goed imago
- [ ] Ik wil me hier niet in verdiepen
- [ ] Ik ben onbekend met het bouwteam
- [ ] Ik denk dat het mij of mijn organisatie niets oplevert
- [ ] Anders: _____

Ga naar vraag 52.

Aanbesteden algemeen - opdrachtnemer

Bij de volgende vragen wordt uw mening gevraagd over diverse aspecten van aan- en uitbesteden van openbare werken.
Het gaat hier om uw mening. Geen enkel antwoord is dus fout of ongewenst. Heeft u geen mening? Sla de vraag dan over.

39. **15.1 In de ontwerpfase van een project is een aannemer vaak een waardevolle partner om de kwaliteit van het project te verhogen**
Denk bij kwaliteit bijvoorbeeld aan: doorlooptijd, kosten, uitvoerbaarheid, klanttevredenheid
Markeer slechts één ovaal.

- ◯ Eens
- ◯ Oneens

40. **15.2 Een aannemer is goed in staat het gehele project te overzien en geschikte oplossingen voor te stellen**
Bijvoorbeeld: het afwegen van diverse belangen, omgevingsmanagement, technisch management etc.
Markeer slechts één ovaal.

- ◯ Eens
- ◯ Oneens

41. **15.3 Het is goed als een gemeente of provincie taken op het gebied van openbare werken geïntegreerd uitbesteedt**
Denk aan verregaande uitbesteding van het ontwerp, onderhoud en beheer
Markeer slechts één ovaal.

- ◯ Eens
- ◯ Oneens

42. **15.4 Wilt u iets toelichten bij de gegeven antwoorden, dan kan dat hieronder:**

_____
_____
_____
_____
_____

Best Value Procurement - opdrachtnemer

Best Value Procurement (BVP) of prestatieinkoop is uitbesteden van werk aan de de best presterende aanbieder. Enkele kenmerken:

- De aanbieder wordt gezien als de expert en heeft een leidende rol in het proces.

- De aanbieder biedt een oplossing aan op basis van een kerndocument/inschrijvingsleidraad (projectdoelstelling, scope, globale planning, (vaak) een plafondbedrag en wegingsfactoren).

- De aanbieding bestaat uit de beschrijving van de oplossing, het risicodossier, het kansendossier, de interviews en de prijs. Dit kan worden aangevuld met een planning en/of 'prestatie-onderbouwing' waarin de aanbieder onderbouwt waarom hij geschikt is om de doelstellingen van het project te realiseren.

- De plannen zijn maximaal enkele A4'tjes.

- De beste aanbieder werkt de globale plannen verder in detail uit tijdens de concretiseringsfase. In deze fase leidt de aanbieder het proces.

43. **16.1 Heeft u ervaring met projecten op basis van Best Value Procurement?** *
Markeer slechts één ovaal.

- ◯ Ja *Ga naar vraag 44.*
- ◯ Nee *Ga naar vraag 52.*

Best Value Procurement - opdrachtnemer

U heeft aangegeven ervaring te hebben met BVP

44. **Hoe vaak heeft u projecten uitgevoerd op basis van BVP in de afgelopen 3 jaar?** *
ongeveer
Markeer slechts één ovaal.

- ◯ 1 - 2 maal
- ◯ 3 - 5 maal
- ◯ 6 - 8 maal
- ◯ Anders: _____

45. **Hoe tevreden bent u over BVP als methodiek?** *
Markeer slechts één ovaal.

	1	2	3	4	5	6	7	8	9	10	
Zeer ontevreden	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	Zeer tevreden

Best Value Procurement - opdrachtnemer

Hieronder volgt een aantal stellingen over BVP. De stellingen zijn gebaseerd op de successen die BVP 'claimt' te hebben. Ik ben benieuwd naar uw mening daarover.

46. **18.1 Stelling: BVP leidt tot een beter samenwerking en afstemming in de keten**
Markeer slechts één ovaal.

	1	2	3	4	
Helemaal oneens	◯	◯	◯	◯	Helemaal eens

47. **18.2 Stelling: BVP leidt tot meer mogelijkheden voor opdrachtnemers om zicht te onderscheiden van zijn concurrenten**
Markeer slechts één ovaal.

	1	2	3	4	
Helemaal oneens	◯	◯	◯	◯	Helemaal eens

48. **18.3 Stelling: BVP leidt tot minder meerwerk en minder vertraging**
Markeer slechts één ovaal.

	1	2	3	4	
Helemaal oneens	◯	◯	◯	◯	Helemaal eens

49. **18.4 Stelling: BVP leidt tot een hogere klanttevredenheid**
Markeer slechts één ovaal.

	1	2	3	4	
Helemaal oneens	◯	◯	◯	◯	Helemaal eens

50. **18.5 Stelling: BVP leidt tot betere marges voor de opdrachtnemer**
Markeer slechts één ovaal.

	1	2	3	4	
Helemaal oneens	◯	◯	◯	◯	Helemaal eens

51. **18.6 Wilt u iets toelichten bij uw gegeven antwoorden, dan kan dat hieronder**

Ga naar vraag 52.

Vervolg van het onderzoek

Let op! Het formulier is nog niet opgeslagen. Druk op 'Verzenden' om uw antwoorden op te slaan.

52. **19.1 Mag ik u benaderen voor het verdere onderzoek? Vul dan hier uw e-mailadres in:**
Bijvoorbeeld voor een interview of case study

53. **19.2 Wilt u op de hoogte blijven van de ontwikkelingen van dit onderzoek? Vul hieronder uw e-mailadres in om u in te schrijven voor de Stadswerk nieuwsbrief:**

54. **19.3 Heeft u nog opmerkingen naar aanleiding van dit onderzoek?**

Appendix 4 Interview script (in Dutch)

Algemeen Deel

Geïnterviewde

Wat was precies uw functie/rol in dit project?
Van wanneer tot wanneer bent u betrokken geweest (fasen)?

Heeft u voor dit project ervaring opgedaan met BVP?
Heeft u voor dit project ervaring opgedaan met geïntegreerde contracten?

OG

Voorbereiding

- Op welk moment voor BVP gekozen in het project?
- Waarom BVP?
- Was de eigen organisatie overtuigd van de aanpak?

Over BVP

- Wat was er nu precies 'anders dan anders'?
    - Verschil met hoe anders door de gemeente wordt aanbesteed?
        - Voorbereidingstijd tot aanbesteding
    - Binnen de eigen organisatie
        - Samenstelling en grootte van het projectteam
    - Persoonlijk
- Wat voegt deze methode toe?
    - Specifiek: Wat voegen de interviews in het aanbestedingsproces toe?
- Vaker zo doen?

Uitleg over onderzoek. Gericht op samenwerking.
Balans tussen risico, vertrouwen en beheersing

Projectspecifiek:

Risico

- Wat waren de grootste (verwachtte) risico's bij de start van het project (moment van aanbesteden)?
- Waren dit achteraf de grootste risico's?
- Hoe veranderde dit tijdens het project?
- Hoe waren risico's verdeeld? In balans?
    - Bijv. m.b.t. ontwerp, vergunningenproces

Vertrouwen

- Is het vertrouwen altijd even groot geweest in de opdrachtnemer
    - In competentie (expertrol)
    - In het gezamenlijk belang voorop stellen
- Vertrouwen in projectkwaliteit (tijd, kosten, kwaliteit werk)
- Meer het gevoel van kennen van de mensen i.p.v. een bedrijfsnaam

Controle/beheersing

- Is er veel vrijheid / verantwoordelijkheid geboden aan de aannemer
    - In de uitvraag
    - Ontwerp
    - Uitvoering
- Achteraf: goed, meer of minder vrijheid bieden?
- Gevoel van beheersing van risico's
- Gevoel van financiële beheersing
- Gevoel van controle over uitvoering
- Mate van controleren in uitvoering (opzichter, nameten etc.)
- Hoe verliep de communicatie tijdens het project?
    - Op wiens initiatief?
    - Hoe vaak?
    - Formeel/informeel

ON

Over BVP

- Wat was er nu precies 'anders dan anders'?
    - De aanpak in de aanbestedingsfase?
        - Projectteam
        - Externe partij
        - Moeite/tijd om een aanbieding voor te bereiden
    - Onderscheiden t.o.v. andere aanbieders (expert zijn loont), laten zien wat je in huis hebt, mee eens?
    - In de uitvoeringsfase?
    - Gezondere winstmarge?
    - Persoonlijk?
        - Meer gevoel persoonlijk eigenaar/verantwoordelijk te zijn?
        - Trotser op aanbieding/resultaat?
- Moet BVP vaker worden ingezet?
- Wat is volgens u de belangrijkste toevoeging van BVP?
    - Interviews
- Was dit project geschikt voor BVP?
    - Wanneer is een project geschikt voor BVP?

Uitleg over onderzoek. Gericht op samenwerking.
Balans tussen risico, vertrouwen en beheersing

Projectspecifiek:

Risico

- Wat waren de grootste risico's bij start?
    - Voor ON
    - Voor OG
- Waren dit achteraf de grootste risico's?
- Hoe veranderde dit tijdens het project?
- Hoe waren risico's verdeeld? In balans?
    - Bijv. m.b.t. ontwerp, vergunningenproces

Vertrouwen

- Vertrouwen in opdrachtgever?
    - In kennis
        - snapt wat er gebeurt
    - In willen/intentie
        - Durft uit handen te geven
        - Kan/durft beslissingen te nemen (voldoende mandaat)
- Was er vanuit de opdrachtgever vertrouwen/wantrouwen
    - Veranderde dit gedurende het project?
- Gevoel de mensen van OG meer persoonlijk te kennen door BVP?

Controle/beheersing

- Is er veel vrijheid / verantwoordelijkheid geboden aan de aannemer
    - In de uitvraag
    - Ontwerp
    - Uitvoering
- Achteraf: goed, meer of minder vrijheid (dus verantwoordelijkheid) bieden?
- Is er door de opdrachtgever veel gecontroleerd tijdens de uitvoering? (opzichter op het werk, nameten etc.)
- Hoe verliep de communicatie tijdens het project
    - Op wiens initiatief?
    - Hoe vaak
    - Formeel/informeel?
- Wilt u nog iets kwijt?

Cases specifieke vragen

Appendix 5 Case study results in detail (in Dutch)

Left out of this version for confidentiality reasons.