

COLLABORATION - *is the new* - COMPETITION

Strategic alliances in the industry in which Sweco participates

Summary

Katrien Peters

MSc Architecture, Urbanism and Building Science
Delft University of Technology

Ing. K. (Katrien) PETERS

Student number 4340108
Address Herculesweg 139
Zipcode 2624 VV
City Delft
Country The Netherlands
Phone number (+31) 6 49 98 18 45
First email katrienpeters@hotmail.com



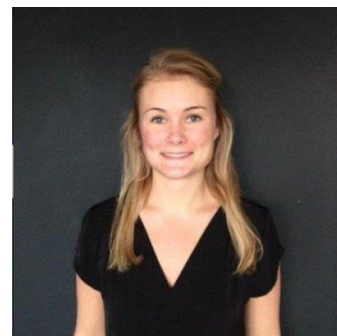
DELFT UNIVERSITY OF TECHNOLOGY

Faculty Architecture
Master track Management in the Built Environment
Address Julianalaan 134
Zipcode 2628 BL
City Delft
Country The Netherlands



Theme Collaboration & Integration in construction
1st mentor Ir. J.S.J. (Jelle) Koolwijk
2nd mentor Ir. A.J. (Agnes) Franzen
Graduation Company Sweco
Contact Sweco Ing. W. (Wendy) Roodnat

Date P5 June 24th 2016



EXECUTIVE SUMMARY

This thesis had the purpose to explore the phenomenon strategic alliances. Spekman, Forbes, Isabella and MacAvoy (1998) define a strategic alliance as;

Close, long-term, mutually beneficial agreement between two or more partners in which resources, knowledge, and capabilities are shared with the objective of enhancing the competitive position of each partner.

Due to several shifts in the construction industry, strategic alliances became a more common way to collaborate (Doree and Van der Veen, 1999). On the one hand, clients desire to be unburden (Architectenweb, 2015; BPM, 2013) and on the other hand, organisations start specializing in one service or activity (Doree and Van der Veen, 1999). These slightly contradicting shifts resulted in organisations collaborating in order to not only use internal capabilities and resources, but to reach for inter-organisational collaboration as well in order to meet the clients' requirements (figure s.1.) (Claycomb and Frankwick, 2004). There are different types of inter-organisational collaboration, however, there is a growing interest in strategic alliances (Todeva and Knoke, 2005).



Figure s.1. Occasion strategic alliances (*Own illustration, 2015/2016*)

This thesis has a grounded theory approach, which implies exploring a certain phenomenon. It is a research approach which requires an iterative process of data collation and data analysis to produce theory based on the phenomenon (Strauss & Corbin, 1990). In this case, the research is based on the sensitizing concept strategic alliances. Performing research based on the grounded theory approach has resulted in a rather rigid structure with four different stages, being preparations, an iterative process of data collection, data analysis and memoing, a theoretical outline and writing it down. Figure s.2. portrays a scheme of the grounded theory approach and its phases, combined with the main tasks during these phases.

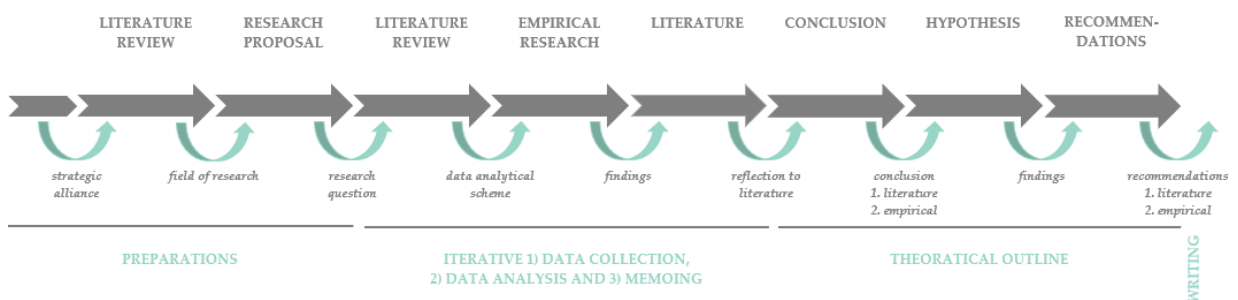


Figure s.2. Grounded theory (*Own illustration, 2015/2016*)

By and large, the four different stages of the grounded theory approach imply;

Preparation

During an orientating literature review, the field of research has been set. Main result of this phase is the research question.

Data collection, data analysis and memoing

Iterative process of data collection, data analysis and the search to codes and the relationship between those codes.

Theoretical outline

Main activity during this phase is sorting, which implies showing the relationship between the different codes. It might result in even more data collection, due to the fact that sorting exposes relevant gaps. For this these, sorting implies creating conclusions, hypotheses and recommendations.

Writing

The last step is writing the final draft in which all phases and theory have been portrayed in a structured way.

GROUNDING THEORY | PREPARATION

As mentioned, strategic alliances become a more and more applied method of collaboration in the construction industry. However, not much research has been performed on this subject. Therefore, the concept strategic alliances has been labelled as the phenomenon which has been the occasion and starting point of this ground theory thesis. With this concept, or as literature calls it a sensitizing concept (Hoonard, 1997), an orientating literature review has been performed. During this review, exposed is that in general, fifty to sixty per cent of all alliances fail (De Man, 2006: Kalmbach and Roussel, 1999). One of the main factors for a successful alliance is senior management, which is related to the organisation (Elmuti and Kathawala, 2001). Albers, Wohlgezogen and Zajac (2013) state that the organisation of a strategic alliance is one of the most important aspects, but that not much research has been performed to the collaborative activities or organisation.

The above mentioned findings from the orientating literature review resulted in the field of research being the organisation of strategic alliances in the construction industry. This focus has been complemented with the aspects process and the critical moments during the process. The process is an important feature related to the alliance and its organisation. It portrays the development of the collaboration and the steps taken. By exposing the critical moments during the process, important lessons can be determined and even factors for success.

Due to the fact that this research has been performed based on the request of the engineering agency Sweco, the construction industry can be seen as the industry in which Sweco participates. Thereafter, the field of research has resulted in the main research question of this thesis, being;

How is a strategic alliance in the construction industry organized and what are the critical moments, both during the process of formation and the process of operationalization?

The sensitizing concept strategic alliances has been complemented with the concepts organisation and process. This has resulted in a trilogy, which has been implemented in the division of sub research questions. Figure s.3. portrays these sub questions.

LITERATURE	
<i>Strategic alliance</i>	How can a strategic alliance in general be defined?
<i>Organisation</i>	How and with whom is a strategic alliance organized?
<i>Process</i>	What different stages does a strategic alliance go through? Which aspects influence the process and can be seen as critical moments?
EMPIRICAL	
<i>Strategic alliance</i>	How can a strategic alliance in the construction industry be defined?
<i>Organisation</i>	Who are the different participating organisations? Who are the different participating actors? At what levels do the organisations collaborate? What is the content of the legal agreement between the organisations?
<i>Process</i>	Who took the initiative? How did the formation of the strategic alliance take place? What are the critical moments during the process?

Figure s.3. Sub questions (*Own illustration, 2015/2016*)

With the research proposal and the research question specifically, a new phase of the grounded theory has been reached, being the iterative process of data collection, data analysis and memoing.

GROUNDED THEORY | DATA COLLECTION, DATA ANALYSIS AND MEMOING

The method applied to this iterative process of data collection, data analysis and composing categories is both a literature review and empirical research. Based on the research proposal and its trilogy of strategic alliances, organisation and process, a more extensive literature review has been performed.

Strategic alliances

Based on the first orientating literature review, a definition of strategic alliances has been formulated, which is;

Close, long-term, mutually beneficial agreement between two or more partners in which resources, knowledge, and capabilities are shared with the objective of enhancing the competitive position of each partner - Spekman et al (1998)

Strategic alliances are based on a contractual agreement, which might evolve from a letter of intent. Related to the agreement is the fact that an alliance should have a clear strategy and intent. Influential to both the strategy and the intent, is the market in which the alliance operates. It can be either a developed market or an emerging market, with the letter becoming a developed market at some point. Alliances will have a more defensive approach when it comes to operating in a developed market and a more offensive approach in an emerging market.

Organisation

With a strategic alliance, a new organisational structure emerges. Albers, Wohlgezogen and Zajac (2013) state that the organisation is very complex, because what seems to be one single tie between different organisations, is actually a network of ties between different individuals. They created a scheme, which

is based on the parameters interface, intraface, formalization, specialization and centralization, and enables exploring the organisation of an alliance (Appendix I. Organisation strategic alliances).

A strategic alliance is based on collaboration between two or more organisations. Frostenson and Prenkert (2015) distinguish a focal partner and a complementary partner. Seuring and Muller (2008) define a focal organisation as the organisation that usually 1) rules or governs the supply chain, 2) provide the direct contact to the customer and/or 3) designs the product or service offered. Most important characteristic of the focal organisation is that it is the initiator (Cavusgil, Knight and Riesenberger, 2008).

Management of an alliance is based on both trust and control (De Man, 2006). Figure s.4 portrays the situations in which trust, control or a combination is desired. Both aspects are in order, but based on research performed by De Man (2006), exposed is that in most alliances, trust predominates.

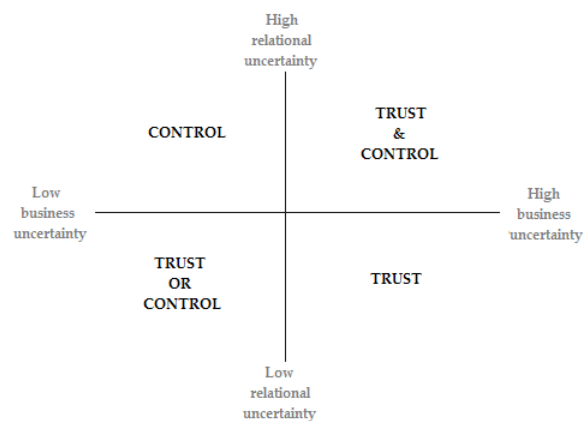


Figure s.4.. Trust and control (De Man, 2006)

Process

By and large, strategic alliances go through three different phases, being the search, formation and management or the pre-formation, formation and post-formation phase (figure s.5) (Lau, 2000). The latter two phases are an iterative process in which alterations take place. Reuer, Zollo and Singh (2002) state that 44 per cent of all alliances experience alterations like contractual alterations, changes in participants or a more formalized monitoring mechanism. For an alliance to be successful, it is important to be able to anticipate to these alterations.

De Man (2006) exposed that all three phases are more interwoven and that due to the ad-hoc approach in the construction industry, alliances in this industry have less of a long-term vision, but they do exceed a single project.

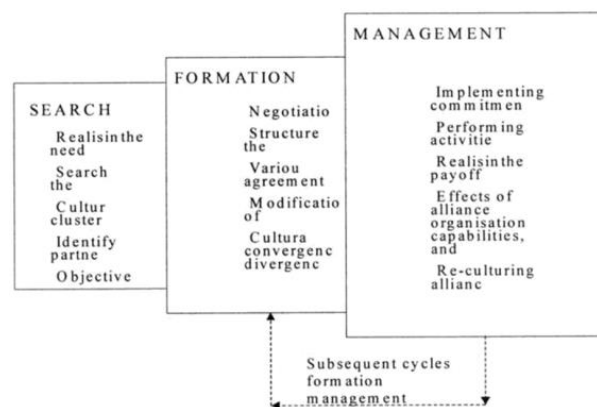


Figure s.5. Phases strategic alliance (Lau, 2000)

The findings from the literature review have been implemented in a Data Analytical Scheme (figure s.6, p. VI). The combination of these findings and a first glance at the cases which has been analysed, has resulted in an amended definition of a strategic alliance. Main amendment is the fact that Albers et al (2013) exposed that alliances are not about the organisations, but about the individuals of the organisations. Complementing is that De Man (2006) advocates that alliance do not need a very long-term vision, but that it should exceed a single project.

Amended definition strategic alliance I – *An agreement between individuals of two (bilateral) or more (network) organisations about collaboration that goes beyond one single project without losing their independency, in which resources, knowledge, and capabilities are shared with the objective to enhance the competitive position of each partner.*

Another feature that got noticed during the combination of the literature review and a first orientation of the cases is the fact that four aspects need to be elaborated on. Those aspects are the contract, the actors, critical moments and the market in which the alliance operates.

Contract

Type of agreement between the different participating organisations. It does not only imply the legal or formal contract, also the verbal agreements and interaction.

> Many authors have different perspectives on the legal position of a strategic alliance and the necessity of a formal agreement. During a global orientation, noticed is the absence of explicit contracts.

Actors & Sweco

The involved individuals from the participating organisations and their roles.

> An alliance is about individuals, not the entire organisation (Albers et al, 2013).

Critical moments

The moments that had a certain influence on the strategic alliance, both during the process, but also in general.

> Not only factors for success, but also certain aspects in the process of an alliance determine the remaining process.

(Served) Market

A combination of the area in which the organisations operate and compete with other organisations for a specific target group, and the number of those competitors (Best, 2005).

> An influential aspect is the market. Noticed is the diversity of market conditions in the four cases, which has a certain influence on the alliance.

Case analysis

The Data Analytical Scheme functioned as the starting point for the empirical research. Four cases in which the engineering agency Sweco Nederland participates in a strategic alliance have been explored based on the sensitizing concepts strategic alliances, organisation and process. The Data Analytical Scheme is portrayed in figure s.6. on page VI. Page VII. provides a description of the four analyzed cases, being Robuust Watersysteem, Ballast Nedam, Strukton and Dekker.

1. Alliance	2. Organisation	3. Process
1.1 Type of alliance	2.1 Actors	3.1 Phases
1.1.1 Legal	2.1.1 Number of partners	3.1.1 Emerged from
a. Joint venture	a. 2	a. Previous project
b. Contractual agreement	b. 3	b. Previous contact
c. Verbal agreement	c. > 3	c. Combination of above
1.1.2 Focus	2.1.2 Partners	3.1.2 Year of first contact
a. Marketing and sales		
b. Product and manufacturing		
c. Technology and know-how		
1.1.3 Market	2.1.3 Partner a.	3.1.3 Year of formation strategic alliance
a. Vertical	1. Organisation	3.1.4 Initiative
b. Horizontal		
c. Intersectional	2. Core business	3.1.5 Alliance experience
1.1.4 Approach		a. Collaborative
a. Offensive	3. Purpose strategic alliance	b. Technological
b. Defensive		c. Partner
1.1.5 Sector	4. More focal or complementary	3.1.6 Number of projects
a. Public		a. 1
b. Private	2.1.3 Partner b.	b. 2
c. Public / private	1. Organisation	c. > 3
1.2 Contract		3.1.7 Main project
1.2.1 Contractual agreement	2. Core business	3.2 Alterations
a. Yes,		3.2.1 Change in agreement
ba. No,	3. Purpose strategic alliance	a. Yes,
1.2.2 Year of establishment		b. No
	4. More focal or complementary	3.2.2 Change in purpose
1.2.3 Duration of contract		a. Yes,
a. Fixed	2.2 Organisation	b. No
b. Flexible	2.2.1 Type of gatherings	3.2.3 Changes in main involved people
1.3 Purpose	a. Steering group	a. Yes,
1.3.1 Categories	b. Work group	b. No
a. Increase revenues	c. No fixed gatherings	3.3 Factors for success
b. Entering new markets	2.3 Management	a. Common vision
c. Innovation	2.3.1 Involvement top management Sweco	b. Appropriate scope
d. Risk sharing	a. Only during initiative	c. Shared objectives
e. Competitive advantage	b. Initiative and moderating	d. Shared control
f. Knowledge / expertise sharing	c. Limited involvement	e. Mutual needs
g. Meet client requirements	2.3.2 Management tools	f. Team problem solving
1.3.2 Specific	a. Portfolio analysis	g. Strategic fit
	b. Partner programmes	h. Shared decision-making
	c. Database	i. Senior management
1.4 Strategy	2.4 Trust and control	j. Cultural compatibility
a. Co-option	2.4.1 Uncertainty level business	k. Shared risk
b. Co-specialisation	a. Low	l. Mutual trust
c. Internalising	b. Medium	m. Shared reward
1.5 Market	c. High	n. Measurable goals
1.5.1 Type of market	2.4.2 Uncertainty level relation	o. Partner accountability
a. Developed	a. Low	p. Partner selection
b. Emerging	b. Medium	
1.5.2 Sector	c. High	
	2.4.3 Control	
1.5.3 Market initiative taker	a. Objective control	
	Project contract	
	b. Normative control	
	Norms, experience	
	c. Self-management control	
	Personal preferences	

Figure s.6. Data Analytical Scheme (Own illustration, 2015/2016)

Robuust Watersysteem

Currently, 11 organisations collaborate in order to tackle the fresh water issues in the province Zeeland, the Netherlands. What started as an initiative of DOW to exchange fresh water, resulted in a collaboration between different organisations to look beyond this problem and benefit from issues arising. In the past, a letter of intent has been designed, however, this has never been signed. In order to attract the Dutch State and to be able to have the right for subsidies, a contractual agreement is planned to be signed in the summer of 2016. Even without a contract, projects get executed. The contract – Green Deal – does create a more formalized alliance.

Due to the fact 11 organisations collaborate, certain organisations are more active than others, which resulted in a division of the more active and the less active organisations. During a yearly administrative convention, all organisations discuss previous and future projects. The active organisations also meet during work gatherings. However, even with the division of active and less-active organisations, there is no real focal organisation as would be expected based on research by Eistert (1996). Due to the flexibility within the collaboration, the organisational structure can be labelled as the limitless organisation. However, the organisations are still learning about this type of collaboration by exploring certain aspects. Therefore, it is a learning organisation as well.

Ballast Nedam

Due to a request from a client, Ballast Nedam and Sweco started collaborating in order to realize the desired detachable parking garage. Based on previous contacts between individuals from Ballast Nedam and Sweco, the two organisations found each other. This alliance is formalized in a letter of intent, which has been signed in 2010. The position of the organisations was equal at the beginning, however, at present, Sweco has a less active role. This can be explained by the fact the concept of detachable parking garages has been completed and nowadays, it is about ‘selling’ the concept. This might result in the termination of the letter of intent.

With regard to the organisation of this alliance, Ballast Nedam and Sweco do not have fixed gatherings. Especially now Sweco has less involvement in the detachable parking garages, no real organisational structure is present. At the beginning, the organisations had to explore the opportunities of collaboration. However, besides this learning organisation, Ballast had a very fixed organisational structure with its private limited company ModuPark. The structure can be labelled as a matrix organisation.

Strukton

Based on the work connection between two individuals from Sweco and Strukton, possibilities for a strategic alliance have been discussed. This has resulted in a collaboration which focusses on the asset management of public areas. Main clients for this - not yet formed - market are public parties, however, the potential clients are not ready yet. The alliance experiences some difficulties with ‘convincing’ the importance of the concept of asset management. These difficulties result in the organisations being at a crossroad which implies or changing the concept or remaining with the concept, but downgrading the level of activities.

From both organisations, individuals participate in a steering committee and a work group. Especially the work group has an active approach towards the acquisition of clients. This can be labelled as the matrix organisation.

Dekker

In a very developed market, Sweco and the contractor Dekker decided to investigate the possibilities of collaboration that goes beyond single projects. However, currently there are no fixed agreements between the two organisations. There is no clear organisational structure (yet), but there is a common vision, which implies a learning organisation.

Cross case analysis

Besides the analysis per case, a cross case analysis has been performed as well. This has been based on the four aspects 1) contract, 3) actors, 4) critical moments and 5) the market. Those findings have been reflected to the existing literature in order to expose the differences.

Contract

In two of the cases, the agreement between the different participating organisations has been formalized in a letter of intent. The two remaining alliances are based on a verbal agreement purely. The content of the letters of intent remain very basic and is really about the overall intent of the collaboration. More specific agreements are formalized in the contract which are signed per project. Related to the contract is the formation of the alliance. All alliances are formed based on previous projects or work contacts. However, the alliance between Sweco and Strukton differs, due to the fact the organisations decided to collaborate without having an intentional business plan.

> In literature, a strategic alliance has been defined as a contractual agreement. However, the case study exposes that letters of intent and even verbal agreements can be sufficient as well. Where many sources claim that alliances are intentional, most derive from previous contacts and/or projects, which has been advocated by Bennet and Jayes (1998) as well.

Actors & Sweco

It is remarkable that per organisation, not many individuals participate in the alliance. Most individuals operate at the tactical level, however, every layer is involved somehow. Gatherings between individuals of the participating organisations mainly take place at the tactical level as well. Probably related to the relative small number of individuals is the observation that in most cases, there is no clear organisational structure or focal organisation.

> Albers et al (2013) advocate that an alliance is about the individuals of the organisations, not the organisations themselves. No further research to this statement has been performed, however, the case study confirms it. The fact that the alliance is about individuals, not about the organisations, might have resulted in the fact that there is no real focal partner. Eistert (1996) states that in an alliance with two organisations, both are the focal partner. The case study exposed that the commitment of the organisations, results in the role – focal or complementary – of the respective organisation.

Critical moments

The critical moments related to the four cases are mostly related to people. This implies people not functioning as they should, both during previous projects or in the alliance itself, and the rotation of the involved people. However, those critical moments are more moments the involved people desire to avoid rather than moments that really occurred.

> Rotation of people and adapting to changes has been mentioned as a critical moment. However, Reuer, Zolla and Singh (2002) exposed that 44 per cent of the alliances will be exposed to alterations. Alliances should be able to deal with the alterations rather than be focused on avoiding them.

(Served) Market

The market in which the alliance operates has a big influence on the success of the alliance. The alliance between Sweco and Dekker operates in a very developed market in which both organisations are easily replaceable. In the case of Strukton, the market might not be ready yet, which results in an alliance that needs to adapt to the demand from the market.

> In literature, a distinction has been made between a developed market and an emerging market which will become a developed market. However, the case study exposed that not even emerging market will become a developed market. In the case of Strukton, the client is not ready yet and might never will. This has an effect on the alliance, which might not survive. The market has a large influence on the success of an alliance and can be labelled as a critical aspect.

The most important findings of the reflection of theory to existing literature;

1. Strategic alliances in the construction industry are not about the organisations, but about the individuals of those organisations. This has been advocated by Albers et al (2013); they state that it is about a network of ties between different individuals rather than one single tie between the organisations.
2. Where many sources speak of intentional alliance, both practice and Bennet and Jayes (1998) expose that the establishment of an alliance is based on project partnering or a previous experience which evolves into strategic partnering. So not only the phases pre-formation, formation and post-formation can be distinguished, but also the pre-alliance phase.
3. With regard to the organisation of the strategic alliances in the construction industry, not much attention has been paid to the structure. Some alliances have a division between a steering group and a work group. However, due to the relative small scale of some alliances, no clear organisational structure has been applied.

The empirical research has resulted in the statement that an alliance can be based on any agreement – contractual or verbal. Another aspect related to the first amended definition of strategic alliances is the fact that not all alliances have the purpose of enhancing the competitive position of each partner. In the case of Robuust Watersysteem, collaborating is more of a necessity rather than an intention to improve the positions of each partner. These findings resulted in a second amended definition of a strategic alliance, being;

Amended definition strategic alliance II – *An agreement – verbal or contractual – between individuals of two (bilateral) or more (network) organisations about collaboration that goes beyond one single project without losing their independency, in which resources, knowledge, and capabilities are shared.*

GROUNDED THEORY | THEORETICAL OUTLINE

The third step in the grounded theory approach is sorting the gathered data. For this research, sorting implies combining the findings from the literature review and the empirical research in conclusions, hypotheses and recommendations.

Conclusion

This thesis focused on strategic alliances in the industry in which the engineering agency Sweco operates. The main research question related to this topic is;

How is a strategic alliance in the construction industry organized and what are the critical moments, both during the process of formation and the process of operationalization?

The strategic alliances in which Sweco participates appear to be based on coincidence. Leifer and Mills (1996) state that with a strategic alliance, an emerging organisational structure evolves. However, there is actually no real organisational structure when it comes to the explored strategic alliances. A recurring organisational structure, or actually organisation philosophy is the learning organisation. This implies organisations being capable of adjusting to changes and having a common vision with regard to the alliance. The fact that there is no clear organisational structure might be related to the relative small number of participants. With regard to the organisational division within the alliances, recurring is the distinction between a steering group and a work group. This division is based on the mirrored structure of De Man (2006), which implies an equal role for both organisations and in this case, an equal role for the individuals of the participating organisations. In some cases, (yearly) conventions take place in order to evaluate the alliance. However, a clear management approach has not been applied. This might be related to the lack of organisational structure, combined with the project-based focus of the construction industry. Leifer and Mills (1996) advocate that due to the organisational differences between both the organisations and the individuals of those organisations, control should be introduced, which will increase predictability and introduces standards. One aspect of control is objective control, which implies contracts and constraints (Leifer and Mills, 1996). Remarkable is that in the alliances in which Sweco participates, contracts are not a priority.

The overall conclusion is that it seems that the strategic alliances in which Sweco operates, do not have the 'umbrella' vision that is expected. Instead of multiple projects 'underneath' an umbrella vision or contract, a more linear process based on several projects seems to be the reality. However, the projects are linked, due to the fact that there is an overall vision.

Besides the organisation of strategic alliances, the process and the critical moments during this process have been explored as well. With regard to the process; the formation and operationalization are not two very separated phases. This is related to the fact that there is no real distinction between these two phases, due to the fact there is no 'clear' formation process. It seems rather logical that a contract creates a formal collaboration, however, in the construction industry contracts are signed per project.

The critical moments during the entire process are almost all related to people and alterations; rotation of involved people or the wrong people at a certain position. However, Reuer, Zolla and Singh (2002) state that 44 per cent of all alliances experience alterations like contractual changes, rotation in the composition of participants or more formalized monitoring mechanisms. Participants of strategic alliances should be able to manage alterations rather than label them as threats. The fact that the human aspect has been labelled as the most important critical aspect is related to the statement of Spekman et al (1998), which is that partner selection is one of the most important factors for success. The two observations combined results in the statement that the selection of suitable individuals of the participating organisations is the most important factor for success.

Hypotheses

Based on the findings from both the literature review and empirical research, three hypotheses have been composed.

H1. Strategic alliances in which Dutch engineering agencies participate are formed and operated at the tactical level and therefore tactical alliances.

> Demarcation is that the tactical level of an engineering agency involves the team leader and/or the senior project manager.

H2. There is a relation between the number of participants of a strategic alliance and its organisational structure.

> The organisational structure can be a 1) line organisation, 2) line-staff organisation, 3) project organisation, 4) matrix organisation, 5) limitless organisation and 6) learning organisation (Cantens, 2014). Recommended is to explore the different organisational structures specifically for strategic alliances and even more specific for small scale alliances.

H3. Due to the project-based focus of the construction industry, strategic alliances are less likely to succeed in this industry than in other - more - continuous based industries.

> Both an explorative research to the project-based focus of the construction industry and a comparison with the more continuous based industry will provide a more concise insight in the success factors of strategic alliances in the construction industry.

Recommendations

For both practice and literature, recommendations for further research have been set. Practice has been divided into recommendations specific for the cases in question and the more general recommendations.

> Robuust Watersysteem

This alliance consists of 11 organisations. Based on the statement of Duysters, De Man and Wildeman (1999) about network alliances and the division of key players and complementary players, it might be a good solution to create a team of key strategic partners and a couple of short-term partners for the more specific scope objectives. This is in line with the statement of the Province of Zeeland advocating that occasional alliances may work better than one alliance with the 11 organisations. Another recommendation is that the organisations do select a more focal partner, which might be DOW (Eistert, 1996). This does not imply that DOW is the 'leader', but they might guide the alliance in the correct direction.

> Ballast Nedam

Sweco and Ballast Nedam started collaborating in 1999. Now, many years later, the concept of detachable parking garages has been designed and the focus is on 'selling' the concept. However, Sweco is not required anymore. This implies that this alliance is in the post-formation phase and might need to go to the post-alliance phase. The collaboration of the two organisations exceeds ModuPark, so an alteration of the current letter of intent might be a good solution.

> Strukton

Currently, this collaboration experiences two different issues, being a difficult market and the fact that the individuals from Sweco start to have less involvement in the PMC. As mentioned by the

interviewees, this alliance is on a crossroads whether to continue with the same concept, but downgrade the activity, or to adapt the concept and be more active in attracting new clients. Perhaps due to the reduced involvement of Sweco, the decision which way to go has not been made yet. Recommended is to agree on the road to take in order to have a more clear view for the future.

> Dekker

The main issue for the possible strategic alliance between Sweco and Dekker is the formalization. Dekker on the one hand is not very interested in a letter of intent, whereas Sweco is. The reason for Sweco her interest in a contractual agreement, is the fact that it might improve the internal efficiency of legal and/or insurance aspects. In case Dekker is not interested in a letter of intent, Sweco might need to state certain internal agreements about legal and/or insurance related aspects.

> Overall

1. Based on the alliance phases of Lau (2000), recommended is to see the alliance as an iterative process. Attention should be paid to adjustments and fixed conventions can contribute to the quality of the alliance.
2. The main feature of a strategic alliance is that the collaboration goes beyond one single project. However, the construction industry is mainly project based. This might indicate that strategic alliances in the construction industry can exist, but in a reduced way. Connecting certain projects might be a better solution than to create an 'umbrella', which only consists of the intention of the alliance. With regard to the contract, it seems more important for the organisations internally to increase efficiency. Recommended is to set clear agreements internally about the collaboration with certain organisations.
3. Rotation of people and the commitment of people has been an issue in all cases. Conventions can increase the commitment of certain people, due to the fact the importance of the alliance gets mentioned. When commitment is reduced due to rotation within organisations, it might be convenient to have more conventions and create more support within the organisations. As Reuer, Zollo and Singh (2002) state, alterations in participants is not rare.

Recommended for further academic research is that the quality of the findings of this thesis will be improved if more research will be performed to the project-based orientation of the construction industry. Does the ad-hoc approach of this industry influence the difficulties of the formation of strategic alliances? More research should be performed to the scale of the alliances as well. Is the scale of the alliance related to the lack of organisational structure?

The last recommendation for literature is to include empirical research as well. Exposed during this thesis research is that there is an entire different 'picture' of strategic alliances based on literature. By performing and including empirical research as well, a more specific definition of a strategic alliance in the construction industry could be made.

GROUNDING THEORY | WRITING

The final draft of this thesis implies a first attempt of exploring the phenomenon strategic alliances and especially strategic alliances in the industry in which the engineering agency Sweco operates. Besides the first attempt of providing an insight in strategic alliances, it also enables further research on this topic. This further research can be for strategic alliances in the construction industry, but also alliances in other sectors.