



Evaluation of a city project

A case study investigating success factors at a city developer

Master's thesis in Design and Construction Project Management

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DEPARTMENT OF ARCHITECTURE AND CIVIL ENGINEERING
DIVISION OF CONSTRUCTION MANAGEMENT

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ABSTRACT

The trend is moving towards public and private actors collaborating in construction projects. Public actors are striving to take advantage of the private sectors strengths, in order to achieve better performance of projects. Going from arm's length relationship to a close long-term strategic partnership, by sharing risks, costs and skills in order to create a win-win situation for both of the parties. Collaboration is a cornerstone for a successful project, where communication, teamwork, leadership, trust and common aims are some of the contributing factors for achieving successful collaboration. Quality, time and budget are also factors for a successful project. This report is investigating the collaboration and success factors for a built city area by a consortium of private and public actors. The case is at a public city developer which was working in a consortium to develop the city area and they worked by an appreciated collaboration model developed by the city developer. The empirical information has been gathered through internal documents and interviews from the involved actors. One part of the results deems the city developer as a good and experienced project leader, who knew what they wanted to achieve with the area. It existed a clear vision about the area, but that vision was forgotten during the progress of the project. The results of the report show that the communication functioned well and there was a general mutual commitment and level of ambition, except for one incident where two actors left the consortium in advance. Time and budget of the project did not reach the initial planning while the quality was high, though depending from which perspective one look at. Overall the collaboration was successful. Recommendations are presented to the case company and include; to better communicate the vision during the whole project and that all actors should be involved from beginning to the end. Regarding the quality factor, better social parameters could have been more included. Future research can investigate quality parameters in a more detailed way, together with research about the collaboration.

Key words: Partnership, successful collaboration, collaboration, successful projects, public-private-partnership, consortium

Contents

ABSTRACT	I
CONTENTS	II
PREFACE	IV
LIST OF FIGURES	VI
1 INTRODUCTION	1
1.1 Background	1
1.2 Aim	2
1.2.1 Research questions	2
1.3 Limitations	2
2 METHODOLOGY	3
2.1 Method	3
2.2 Case study	3
2.3 The case	3
2.4 Qualitative research	4
2.5 Literature	4
2.6 Empirical data	4
2.6.1 Semi-structured interviews	4
2.7 Ethics and Sustainability	5
3 THEORY	6
3.1 Partnerships	6
3.2 Collaboration in partnerships	7
3.2.1 Common aims	7
3.2.2 Power	8
3.2.3 Trust	8
3.2.4 Leadership	9
3.2.5 Membership structures	9
3.3 Factors for a successful project	10
3.4 Collaboration in projects	12
3.4.1 Communication	12
3.4.2 Teamwork	12
3.4.3 Coordination	12
3.5 Public-private-partnership	13
3.5.1 Success factors	14
3.5.2 Advantages	14
3.6 Summary of the theory	14

4	RESULTS AND ANALYSIS	16
4.1	Collaboration model by Älvstranden	16
4.2	Interviews	16
4.3	Vision and target	17
4.4	Commitment	18
4.5	Communication	18
4.6	Level of ambition	19
4.7	Coordination	19
4.8	Quality	21
4.9	Time	22
4.10	Budget	23
5	DISCUSSION	24
5.1	Collaboration	24
5.2	Quality	24
5.3	Time	25
5.4	Budget	26
5.5	Authors own critique of the report	26
6	CONCLUSION	27
6.1	Recommendations	28
6.1.1	Communication	28
6.1.2	Consortium	28
6.1.3	Quality	29
6.2	Future research	29
7	REFERENCES	30
	APPENDIX	34
	Appendix I Questions to the consortium	34
	Appendix II Questions to the private actors	36
	Appendix III Questions to the controller	38
	Appendix IV Questions to the association for the residents	39

Preface

This master's thesis has been the final part of the master's programme Design and Construction Project Management at Chalmers University of Technology. We would like to start with highly thanking our supervisor and examiner Mathias Gustafsson. Without all professional support and guidance this project would have never been finalized in a proper way. This process has been rewarding and we have gained more knowledge in how to conduct a report on advanced level.

We would also like to express our gratitude to the case company, for having us there and to our contact persons for distributing us right material and supporting us in our report. Not to mention all the interviewees for their time and opinions who answered our questions that contributed to our report. It was rewarding but also interesting to hear all opinions from the people been involved in the project.

Lastly, we would like to thank our family and friends for all support and patient during this exciting report.

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List of Figures

Table 3.1	Key characteristics of partnerships and transactional relationships	6
Figure 3.1	Themes in collaboration	7
Figure 3.2	Dimensions of the goal taxonomy	8
Table 4.1	Collaboration of the project and criteria for successful collaboration	17
Table 4.2	Project in terms of quality, time and budget	21
Table 6.1	Recommendations	28

1 Introduction

The past decade, there has been an increasing trend where the private sector is involved in the development and financing of public facilities and services. By this type of arrangements, public and private actors share the risks and rewards (Li and Akintoye, 2003). Many large infrastructure and construction projects, such as roads and urban development projects, are executed by so-called public-private-partnerships. The aim of such collaboration form is letting private actors finance construction projects by public actors, in order to resolve financial limitations in provision of public facilities and service (Tang et al, 2010).

This type of arrangement provides advantages as saved resources, improved economy and risk sharing. By spreading government's capital investment, this guarantees expected rate of return for the investments. Thus, there are also some issues about this collaboration form. The high cost in tendering, complex negotiation and conflicts and different views on the project objective among the project actors are examples of disadvantages of public-private-partnership (Akintoye et al, 2003a; Cumming, 2007).

For these partnerships and also projects to be successful, collaboration is an essential part that needs to be in place (Rahman et al, 2013). Communication, teamwork, commitment and coordination are some important factors leading to good collaboration, which in turn can lead to higher possibility of a project being successful Haaskjold et al (2020). To achieve a successful project, time, quality, client acceptance and budget needs to be fulfilled. However, there are also other factors that can lead to a project being considered as successful. For instance, the project can lead to future projects or follow high requirements in terms of ethics and sustainability (Kerzner, 2013; Pinto, 2013).

1.1 Background

Älvstranden Utveckling AB is a real estate property company owned by the municipality of Gothenburg with responsibility to realize the vision of Älvstaden, which is one of the largest city projects in Scandinavia. Vision Älvstaden is a long-term goal that has been set by the municipality of Gothenburg and is about developing areas that are located next to the river in the city of Gothenburg (Gothenburg City, 2020).

As part of the vision of Älvstaden, one area named Västra Eriksberg has just been developed by Älvstranden Utveckling. The initial start of constructing the area was in 2006 and it is not finished yet, with a few more projects to finalize. The project is a public-private-partnership and has been extensive with many involved actors. The consortium that was part of building Västra Eriksberg consisted of seven different actors in the construction sector. Since Älvstranden is planning for more city projects, there is a need to evaluate the project of Västra Eriksberg in terms of quality, time and economic. This knowledge on which success factors and obstacles exist can be brought to future city projects. In big urban development projects, many actors are involved and therefore it is of interest to evaluate and investigate how the collaboration with the consortium and involved actors in the project has functioned.

Actors in big development projects have different interests, needs and concerns. These interests can create conflicts if the actors have different views toward the project.

Furthermore, to include all internal stakeholders and facilitate participation, it is fundamental that all the actors' interests are aligned and committed (Martinez and Olander, 2015). The project performance and its results in terms of successfulness or not is strongly related to the execution of the collaboration between the actors (Um and Kim, 2018). Therefore, this study will investigate the successfulness of the collaboration with the involved actors that were part of building the area Västra Eriksberg. This will contribute Älvstranden with a guideline of success factors for the collaboration within the consortium and the involved actors for future development projects.

1.2 Aim

The aim of the report is to do an investigation of the consortium and the involved actors, in order to be able to see how the communication and collaboration have worked out. Furthermore, this report focuses on identifying factors and obstacles, what was good and what could be done better when it comes to the collaboration between involved actors. Identify these factors to Älvstranden for developments in future consortiums and developments of city projects. Evaluation of the factors of quality, time and budget of the project are also going to be investigated. Quality in terms of whether actors agreed on aspects of the quality in the project. Time, how the time frame was held and budget, how the budget was met.

1.2.1 Research questions

The following research questions will be addressed:

- What were the success factors/obstacles for this project?
- What is characterized by a successful collaboration within a project and how is that realized in the Västra Eriksberg project?
- What were the outcomes of the project in terms of budget, quality and time?

1.3 Limitations

This report is a case study limited to the area Västra Eriksberg. The area can be evaluated with regards to many parameters and from many aspects, but this report will focus on how the project's collaboration between the consortium and involved stakeholders have functioned. The report will also investigate the parameters: quality, time and budget. The quality can be measured from many perspectives, but this report will focus on the actors' and the interviewees' view of quality. Due to restrictions in time and resources, no comparison with other city projects made by Älvstranden will be made.

2 Methodology

This chapter will describe how the report was conducted and how ethics and sustainability is presented in the report.

2.1 Method

Definition of the report's topic and scope was the first step. The scope and research questions were discussed with the supervisor to decide an adequate level and scope. Information from the case company was investigated to get knowledge about the case. To answer the research questions, relevant theories have been searched for and are used for a base in the work and to compare with the collected empirical data. The empirical data is collected by materials got from the company, but also through interviews with relevant actors in the consortium and other actors that have been part of the project. The material by the company is mostly in the form of documents from the consortium.

2.2 Case study

This report is a case study of a specific area in a specific organization. A case study is an analysis of a single case in a focused and intensive manner. A case study is usually connected to a geographical area and a specific system. The researcher aims to investigate the case which is an interest area to learn about and to get knowledge about in depth. The case study is commonly used in the field of research design (Bryman and Bell, 2015).

2.3 The case

Älvstranden Utveckling is a municipality owned public company. They have the responsibility to develop vision Älvstaden, which includes south and north Älvstranden in Gothenburg. When they work to develop a city area, they mostly work in consortium with different construction actors, both big and small, both private and public. To create a level of structure in the process, they have developed "Samverkansmodellen", hereby called collaboration model, which they implement in the consortiums and is also used as a guidance during the project. This report is focusing on the nearly finished area Västra Eriksberg, which is an old former shipyard transformed into a residential area.

Construction of the area started in 2005 and was planned to finish in 2015-2016. The number of accommodations built in the area was 2187, which included a variation of renting, buying and owning contracts. One preschool was also built in the area. The total area stretched over 397 937 square meters of land where 133 952 square meters was covered by blocks for buildings built by the real estate developers and construction actors from the consortium. 262 958 square meters were public land and was constructed by public actors, for example, streets, parks and docks. The area was divided in areas called: Dockan, Backen, Platån, Kajen, Stapelbädden, Västra Eriksbergsgatan and one park, Färjenäsparken. Each of them contained several buildings except for the park. The park was part of the project and planned as a public park for the city.

The area was built by actors from both private and public sectors. Interviews were executed with these actors. The consortium was represented by seven actors where two

were public and the remaining five were private. The public actors consisted of Älvstranden Utveckling, which was the client and project leader for the consortium, and Egnahemsbolaget, a real estate developer. From the private sector, Ncc, Peab, Riksbyggen, JM and HSB as construction and real estate companies represented the last five places in the consortium. Several architect firms were cooperating to create the area. In this report, only the private firm White Arkitekter will be included. Other actors from the public sector were Trafikkontoret, responsible for the streets, and Park och Natur (parks and other similar areas). From Älvstranden, a person with responsibility for the financial numbers of the project was included. One consultant, Infraguide, was hired to have responsibility of the work security at the construction site. One association representing the residents of the area is also part of the report.

2.4 Qualitative research

The research method of this report has been a qualitative approach where Bryman and Bell (2011) characterize a qualitative research method as a method where words are used rather than numbers. Understanding of the social world is made by interpretation of the environment by its own members.

2.5 Literature

This report has been based on theory about collaboration in projects, successful projects and public-private-partnerships. The chosen literature for the project was gathered from databases of the university Chalmers and from Google Scholar. The theory was in form of books and scientific articles. Search words that were used when searching were: project management, collaboration in projects, successful projects, partnerships, public-private-partnership.

2.6 Empirical data

Empirical data have been collected by interviews and internal documents from Älvstranden Utveckling. The distribution of the attention to empirical information was approximately 70 percent towards the interviews and the remaining 30 percent to internal documents. The information and answers from the interviews that were relevant to the research questions were divided into categories. A pattern was searched for to find common agreements and disagreements, but also opinions of character that benefited the study.

One part of the information from the internal documents were about financial numbers in terms of budgets. Another part was documents regarding the area in general, design language of the buildings, how it was going to be and which qualities the area was going to have. Another document that was used, was about the collaboration model, that Älvstranden Utveckling is using in consortiums when developing city projects.

2.6.1 Semi-structured interviews

One of the data that was gathered and used in this report was collected from semi structured interviews. Bryman and Bell (2015) explain that semi structured interviews mean the researcher set up several quite specific questions within the area to be investigated into. The questions don't need to follow a specific order according to the

schedule during the interview. The interviewer can pursue the answers of the interviewee and ask follow-up questions based on those answers, these questions don't need to be in the schedule before the interview and creates a flexible interview process. This was one of the reasons why semi-structured interviews were chosen, to be able to ask follow-up questions to get more detailed answers and improve the quality of the answers.

The interviewees in this report were chosen from a contact information list handed from the studied company. The number of interviews and which people to interview were decided in the beginning when the authors received the contact list. All the interviewees could not answer all the questions, which depended on the different phases they were working with in the project. In that case, the interviewees gave information to another person who could answer those questions. 15 interviews in total were executed with; nine interviews with actors from the consortium, five interviews with actors outside the consortium but involved in the project and one interview with the president of a resident's association in that area. Half of them were executed face to face, and half of them were executed through video interview online due to the current pandemic. A few interviewees answered the questions from the interview sheet by themselves and sent it to us afterwards. The interviews were conducted between beginning of March and beginning of April. The questions were sent to the interviewees some days in advance. The interview questions are attached in the appendix in the report.

2.7 Ethics and Sustainability

The interviewees were anonymous and the interviewees names were hidden and not presented in the report. As well the companies represented by the actors are not presented and the answers cannot be traced to a specific actor. The interviewees were chosen based from a list of the investigated company. A person was chosen from each actor and an interview was held. No discrimination among the actors was made. Everyone understood the case study and contributed to the report and did their best to answer the questions. This report highlights the importance of social sustainability when developing city projects. That inclusion of the sustainability targets is essential and should be included.

3 Theory

This chapter presents theories that are used as a base in the report and to compare with the empirical data.

3.1 Partnerships

A relationship between two firms is, among other things, characterized by commitment over a long period of time. This commitment implies that both parties share information, share the risks and the rewards of the relationship (Duffy and Fearne, 2004; Ellram and Hendrick, 1995). Such a partnership is moving from an arm length’s relationship towards a strategic partnership, where the intention is to create mutual long-term benefits for both parties, share goals and create a collaboration relationship between each other (Gattorna and Walters, 1996; Spekman, 1988). This relationship between two firms is often characterized from two different sides, traditional arm length’s relationship and more close collaborative partnerships. These two different kinds of relationships and these characteristics are presented in Table 3.1 down below.

Table 3.1 Key characteristics of partnerships and transactional relationships.

Characteristics of traditional arms-length relationship	Characteristics of partnerships
Short-term focus on individual transactions	Commitment to long-term relationships
Buying decisions made on price	Buying decisions made on value
Many suppliers	Fewer selected suppliers
Low interdependence	High interdependence
Separate activities	Open communication
Information is proprietary	Joint decision making
Conflicting goals	Information is shared
Win-lose orientation	Win-Win orientation

(Duffy and Fearne, 2004).

In Table 3.1 Duffy and Fearne (2004) describe the traditional perspective as both parties are independent of each other and want as little relationship and communication as possible. The other party is a commodity where price is the factor of decision and there is a win-lose perspective, while on the partnership perspective, parties want to achieve a win-win situation for both parties and close communication that facilitate a long-term relationship. Trust between the parties and continuously seeking improvements to create value for both parties. The partnership characteristics seen from a behavioral point of view is the performance aspect is not only determined by the structural organization of the partnership, but also by the behavioral of the members. Also, from the behavioral aspect there are two factors which affect the performance, and these are power and conflict (Reve and Stern, 1979).

3.2 Collaboration in partnerships

Companies create partnerships with other actors for different purposes, one of them is achieving collaboration benefits. Huxham (2003) proposes two different concepts relating to collaboration, collaboration advantage and collaboration inertia. To reach collaboration advantage, the aim is to find synergy in the collaboration, and one must consider the collaboration should create more benefits than it would be to act alone. Collaboration inertia on the other hand implies that the output of the collaboration is poor. Things are taking too long time and the result can sometimes be negligible. Even if the collaboration achieved good outcomes, the process to get there can require too much effort and be painful. According to Huxham (2003), five themes are central to reach collaboration advantage, these are presented in Figure 3.1 below.

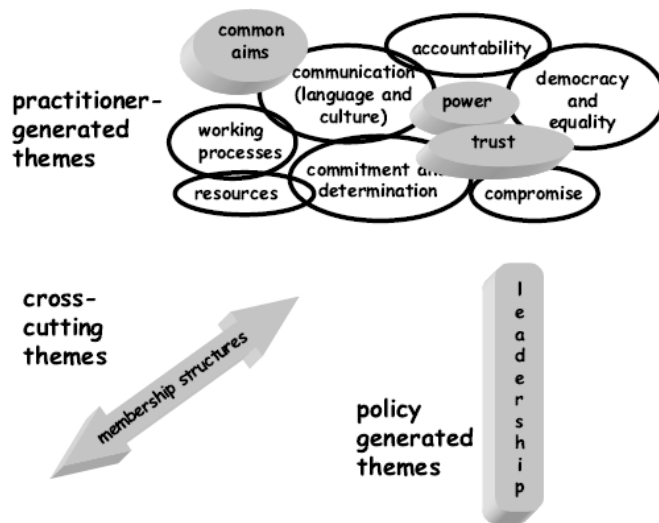


Figure 3.1 Themes in collaboration (Huxham, 2003).

3.2.1 Common aims

For most organizations that goes into collaboration there is a common practice to set aims and goals with the collaboration. But most often it can be a challenge to agree on common aims and goals because of the different agendas of the organization and the individual. The goals can be different, and Figure 3.2 below separates and visualizes the goals in a model. The model distinguishes between goals related to collaboration, organizational goals as viewed from the participant, and the individual participant's personal goals. The goals themselves can then be divided into explicit, deliberately hidden, and goals taken for granted, where it is granted for one person but not necessarily recognized by another. Sometimes it is better to take charge and act even if the aims are not agreed upon (Huxman, 2003). In a study by Massihies et al (1992), it was found that common and mutual aims were the most essential factors in order to achieve successful collaboration. The authors explain that as members of the collaborative group shares an understanding and respect for each other and their respective organizations, how they operate, their cultural norms and values, limitations, and expectations.

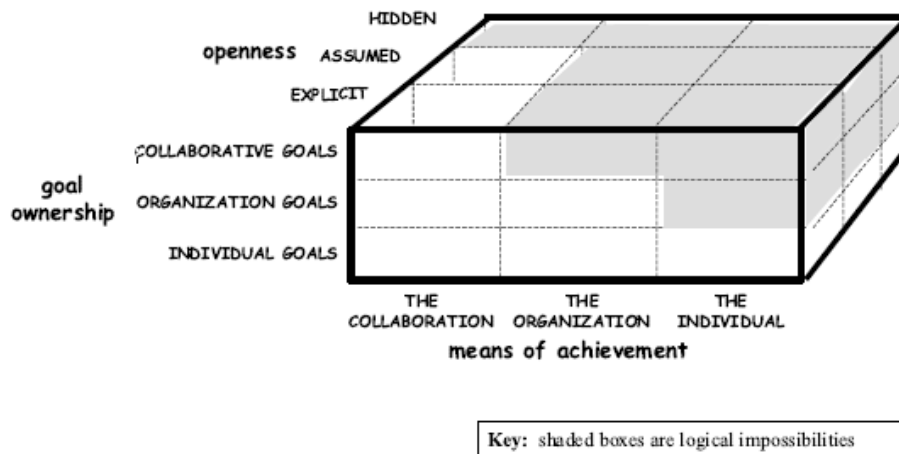


Figure 3.2 Dimensions of the goal taxonomy (Huxham, 2003).

3.2.2 Power

In collaboration units, power exists in various settings. So called points of power can be identified in collaboration situations (Huxham and Beech, 2002). These often exist on micro levels and are not so obvious for everyone to notice. Example of these points of power can be naming of the collaboration, carrying out invitations to join the collaboration, the ones who decide the process in which personal to involve in the units. Another point of power can relate to communication media and processes, such as the person that decides who will be the chairman of a meeting, where and what time the meeting will be. This power infrastructure is dynamic and not static. This power can shift when the collaboration phases developing over time. The person who is forming and structuring the bids for funding can have power, but when the funding is in place, the person who managing the collaboration has power since the influence of the direction and structure of work (Huxman, 2003).

Other points of power can be when managers are not attending meetings, since they are the only people employed by the partnership and also have access to the funding of the partnership. Consultants can be in power positions for a short period of time, for example via their specialist knowledge (Huxman, 2003).

3.2.3 Trust

Trust is not obvious in every collaboration and lack of trust and conflicts can emerge from old traditional construction contracts (Egan, 1998; Latham, 1994). Traditional trust is seen as a foundation for a successful collaboration (Dewulf and Kadefors, 2012; Huxham, 2003). Three types of trust are presented by Rousseau et al (1998): calculus-based trust, relational trust and institutional-based trust. Calculus based trust is based on rational choice perspective, where one party trusts that the other party acts with the intention for benefit for the other party. Relational trust is created between individuals that interact over a period of time. By direct contact, personal and information act as a base for the trust. Emotions and personal attachments influence this direct relational trust. Institution-based trust is trust for the institutions that makes it possible for trust to be created. This means legal system and societal norms like conflict management.

As a common practice, the beginning of a collaboration is usually characterized by suspiciousness rather than trust (Rousseau et al, 1998). The partners sometimes do not have the possibility to choose partners due to different factors, then it is important to put efforts into trust building. Two factors are essential to start building trust. First is the arrangement of the expectations about the collaboration and these are based on reputation, past behaviour or formal contracts. The second factor is risk taking. The partners need to trust each other enough to be able to take a risk to go into the collaboration. When these two factors are in place, trust can be created with progressively aims and goals of the collaboration. Massihies et al (1992) state that trust is a key factor for successful collaboration.

Malhotra and Murningham (2002) argue that trust requires a collaboration between two parties that goes beyond their own self-interest and establishes a stable purpose collaboration with the other party. The progress of trust usually follows the way of reciprocity. This implies that first steps in the collaboration in terms of communication and trust building processes are important for setting the foundation of the partnership (Kadefors, 2003; Zak, 2004). As stated before, trust is important in a collaboration. In one of Dewulf's and Kadefors' (2012) studies, two parties in collaboration were open to share their risks and their budgets. Instead of one party taking all risk, sharing the risks and have transparency facilitated a trustworthiness relationship.

3.2.4 Leadership

The leadership is the part that is pushing the collaboration or business forward. It should formulate and implement the collaboration's policy and activity agenda. The leadership should contain three media, all equally important for a successful leadership. These being structures, processes and participants. The leadership structure is only for the participants of the collaboration, other members can join and see the structure but cannot be influenced by these. The structures and processes are usually set externally, example by the funding actor, and usually not by the members inside the group. The person that takes the leadership role can also be hired from outside or come from a partnership organization (Huxham, 2003). Furthermore, the author proposes that the leadership activities mean to facilitate the collaboration by embracing, empowering, involving and mobilizing participants, to nurture the collaboration and find a balance between ideology and pragmatism for successful leadership. Massihies et al (1992) claim that the collaborative group should be perceived within the community as a leader, related to the aims and activities it intends to achieve.

3.2.5 Membership structures

Membership structures can be divided into three conceptual structures that form the collaboration (Huxman, 2003; Huxham and Vangen, 2000):

- **Ambiguity** - Studies show that organizations are not sure to which actor in terms of a person or an organization they are in collaboration with. It can be unclear if it is a person's expertise, the skills of the project leader or the organization behind that is part of the collaboration. Ambiguity in what role the person has, if it is a supporting role or a central role in the collaboration. It is also sometimes unclear if the person is part of the collaboration because of his or her distinguished skills or of other different factors. For example, if an actor

is part of the collaboration because of the expertise or if the person represents an organization that is important to keep a good relation to.

- **Complexity** - The structures of the hierarchy in the collaboration can be complex. The number of entities and collaborations an organization is part of, the more complex it gets. One example of this is when a local authority is part of regeneration partnerships and at the same time, member of community collaborations. They are in turn members of the umbrella group. When one actor is in partnerships in different collaborations and individuals, makes the hierarchy complex.
- **Dynamics** - A collaboration is a living and dynamic structure that changing over time. It should be that its members set the definition of the purpose, but it is policy setting the purpose. The purpose sets which members are needed in the collaboration, and the members can influence the purpose which in turn can change the collaboration. Which creates a circle of dynamism where the policy and the changing members affect the collaboration.

The abovementioned structures are three cornerstones of collaboration (Huxman, 2003).

3.3 Factors for a successful project

It is a challenge to evaluate if a project is successful or not (Gobeli and Larson, 1987; Gray et al, 1990). Pinto (2013) discusses the challenge of assessing what factors determine a successful project. It is important to decide the essential elements of the project. Four important elements are presented that should be considered and are as follow without any order, budget, time, quality/performance and client acceptance. Kerzner (2013) states that these four determinants can be primary definitions and are viewed from the customer perception about project success. Down below these are shortly described (Pinto, 2013).

- **Budget** - There are probably no projects that are infinitely funded. Follow and meet the budget is crucial to complete successful projects and to respect and use resources as efficient as possible. It is not viable to put in money in a project and hope for the best.
- **Time** - Another constraint is time. Projects are not supposed to run for infinity and have a constraint in time, which it meant the project shall be finished in a set time frame, either be finished before the deadline or at the scheduled time.
- **Quality/Performance** - A third factor is quality and all projects are developed to follow technical specifications that are set in the beginning of the project. Together with the specifications, the scope and how the project will operate to the customer are set. Measuring a project means by checking if the project is meeting the technical specifications, this is also a verification to the customer that the project is meeting the expected performance.
- **Client Acceptance** – This element can be regarded as customer satisfaction and means that the project is developed with the targeted customers in mind to fulfill

and satisfy their needs. The project should be adapted and suited to fulfill the intended customer's expectations. If customer satisfaction is not fulfilled, one can ask if the project really was successful.

Besides the primary definitions of time, quality, budget and client acceptance, Kerzner (2013) suggests additional factors that can lead to project success. These are; more future work from the same customer, bringing the developed product to the market, contributing to strengthen the company's reputation, operating according to safety requirements, having efficient operations of the workflow, following and operating according to ethical regulations, and maintaining relations with regulatory actors. Furthermore, Kerzner (2013) states that the project manager should keep to the guidelines and procedures set by the organization, the project should not change the culture of the company and any change in scope should be kept to minimum, or the change must be on mutual agreement. The beforementioned factors can all generate benefits and opportunities for the company and be viewed as indicators of project success (Kerzner, 2013).

To assess if a project is successful can also vary depending the stakeholder. The consumer can evaluate a product if it safe to use, that can be successful for the customer. From the employee's perspective it can be successful if it creates stable employment. The management is satisfied if a product/project creates high bonuses for them. From the stockholder's perspective they are satisfied if they get their return on investment. Keeping good compliance of regulation with the agencies of the government can lead to success (Kerzner, 2013).

Another possible way to characterize project success is by dividing into internal and external conditions. Internal conditions mean the internal organization to be efficient and productive with the resources and to keep good control over time and budget. The factors time, quality and budget fits into the internal perspective. The external view on the other hand, takes client acceptance into account if the project made the customer satisfied and if the project suits the needs and wants of the customer. Internally it could be a successful project, but no customer does not want the project. It is the marketplace that determines the success of the project rather than the firm's accountants. It turns the attention of the company from internal to external view, towards the customer which requires more openness and communication (Pinto, 2013).

An additional way to evaluate project success is the possibility of creating value in the future. This can be for the organization, commercial or technical (Block, 1998). A project should also be a commercial success and generate future possibilities for the company. To make this process easier, Shenhar et al (1997) propose an approach involving four dimensions for project success, challenging the traditional approach of quality, time and budget. The first one is project efficiency, meeting budget and time schedule. Second is impact on customer, fulfil the technical specifications, explore the customer needs and satisfy the customers. The third dimension is business success, if the project was a commercial success. The last dimension is preparing for the future, if the project was helping to create new markets or developed new technology.

3.4 Collaboration in projects

Research shows that high collaboration quality has a positive effect and contributes to project success in terms of quality, time and budget (Eriksson and Westerberg, 2011). However, a study from Haaskjold et al (2020) show that good collaboration, contributes to high quality but no significantly contribute to low cost or better time performance. The high quality though resulted in fewer errors and changes from specifications and fulfilled the requirements better and delivered according to customer expectations.

Cicmil and Marshall (2005) state that collaboration aid project performance. There are several definitions of what constitutes collaboration and what is it about. Agranoff and Lindsay (1983) and Wilkinson (2005) mean that collaboration is a creative process that is constituted by two or more interested individuals or actors, sharing their collective skills, expertise, understanding and knowledge in an atmosphere of openness, honesty, trust, and mutual respect and understanding, to jointly deliver the best solution that meets their common goal. Collaboration can facilitate a win-win situation between the parties (Yeung et al, 2007). In report by Dietrich et al (2010), a positive relation between collaboration quality and project success was found. Haaskjold et al (2020) propose communication, teamwork and coordination as elements to evaluate good collaboration quality.

3.4.1 Communication

One foundation is that all parties should communicate and understand the project's objectives and goals. Communication can be formal and informal. Lack of communication can result to misunderstandings and conflicts. Bierly (1988) and Massihies et al (1992) agree and pinpoint communication as an important factor for establishing successful communication. They mean that it is of importance to establish an environment that fosters an open and frequent communication of information, where members of the collaboration team interact with each other, updates about necessary and important information that is needed for going forward with the project. It is also of importance to establish a channel for information.

3.4.2 Teamwork

Good teamwork contributes to high quality of collaboration. To achieve good teamwork, a no blame culture, mutual commitment and members with right experience are important. Massihies et al (1992), state that everyone in the team should agree and then take the decision together. Further on, the authors state that a clear development of roles and responsibilities are essential as well as a mutual level of ambition in terms of that everyone know what their role is and carry out responsibility for those roles. Massihies et al (1992) also add that it is of essentiality to establish a good structure of the project team and the ongoing process of the teamwork.

3.4.3 Coordination

Coordination relates to which level the parties have a mutual understanding about the goals and which activities and actions are needed to achieve these goals. Agranoff and Lindsay, (1983); Bierly, (1988) and Massihies et al (1992) add the importance to establish purposes and goals that is clear and realistic to achieve. The ability to convene

is also of importance for coordination. It is important the one who convenes the collaborative group has organizing and interpersonal skills and carries out the roles fairly. By these characteristics, the convener is granted respect or legitimacy from the collaborative partners (Agranoff and Lindsay, 1983).

3.5 Public-private-partnership

PPP is an abbreviation for public-private-partnership and is based on a government's desire to resolve financial limitations in the provision of public facilities and services. This is usually conducted by letting the competencies of private management increase the efficiency, effectiveness and quality of the project delivery in terms of facilities and services (HM Treasury, 2000). The definition and precise meaning of the concept may vary due to different forms of PPP-projects and circumstances in different countries. A general description of PPP is letting private firms finance public construction and infrastructure projects (Tang, et al 2010). From this point of view, public-private-partnership can be seen a collaboration form where the government states its need for capital-investment. Long-lived infrastructure and the desired facility are built by using a combination of governmental and private financing and then operated by a private actor under a long-term contract or lease. The payments during the project are usually spread over 20 to 99 years and cover costs such as construction, operation, maintenance, and capital. The most common PPP-projects are roads, schools, urban development projects and municipal buildings (Savas, 2000).

Efficiency Unit, EU (2005) presents six types of public-private-partnerships as stated:

- **Creating wider markets** - Aimed at utilizing the assets in terms of skills and finance from both the public and private sectors.
- **Private Finance Initiatives** - Involves the public sector purchasing quality services while the private sector maintains or constructs the project. The private sector is aimed to deliver the design, buildings, finances and covers the costs through charges on the users of the asset. This type is the most common one that is conducted.
- **Joint ventures** - Public and private sectors share their assets, finances and expertise under joint management. This provide the private sector a possibility to participate more in management.
- **Partnerships companies** - The private sector introduce ownership into different businesses that are owned by the state through legislation, regulation, partnership agreements or retention of a special government share.
- **Partnership investments** - Ensures that the public sector shares in the return generated by investments made by private sector parties.
- **Franchises** - The private sector pays a fee during the concession period awarded by the government for the revenue that the service generates.

3.5.1 Success factors

According to a study by Li and Akintoye (2003), there are some critical success factors that need to be in place to establish a well-functioning public-private-partnership. For a successful public-private-partnership, it is important that the parties agree about the objectives and respect and understand each other's goals. Akintoye et al (2003b) and HM Treasury (1999) add that mutual commitment among the actors and good communication are important success factors. A proper allocation of risks is also a factor that is important to consider for a public-private-partnership. Furthermore, Li and Akintoye (2003) conclude that a strong consortium is the most important success factor for reaching successful public-private-partnerships. It is of importance that the private companies are aware of and explore each other's strengths and weak sides and gather to together form a consortium for the project. Lastly, it is essential that the parties in the partnership share mutual expectations towards the goal that is set and work together during the whole project (Brinie, 1999).

3.5.2 Advantages

Cumming (2007) claims that one of the main advantages with PPP is that resources can be saved. This is possible by the government who can focus on its main competencies and do not need to depend on its own resources for unfamiliar projects. Due to the participation of the private sector, government assets, data and intellectual property can be utilized more efficiently, which can improve the quality of public facilities and services. By proper use of the private sector's skills, experiences, technology and innovation, public services and projects can be delivered more satisfactorily (Edkins and Smyth, 2006).

A further advantage with public-private-partnership is that the public and private sector can share the risks at different stages (Shen et al, 2006). This is possible since the private sector brings commercial disciplines into public projects, which reduce the risk of cost overruns and project delays (Ho, 2006; Li and Akintoye, 2003). To finish the design, build and operation stages through PPP, the private sector can help to make a leaner civil service structure with a more efficient hierarchy of responsibility for services delivery (EU, 2005). One additional advantage is that the economy can be improved by using public-private-partnership. This collaboration type may lead to reducing the lifecycle costs since these kinds of projects spread government capital investment over the lifetime of a project, which guarantees the expected rate of return for governmental investment (Li and Akintoye, 2003).

3.6 Summary of the theory

Many sources in the theory agree about common factors which can be related to collaboration and projects. The trend is moving from short-term arm's length relationship to a more strategic long-term partnership between involved actors. With the intention to create a win-win situation for the parties. To create a level of collaboration in partnerships, factors have been identified such as: common aims, power, trust, membership structures, commitment and leadership. These factors contribute to a successful collaboration. To achieve a successful project, time, quality, client acceptance and budget needs to be fulfilled. However, there are also other factors that can lead to a project being considered as successful. For instance, the project can

lead to future projects or follow high requirements of ethics and sustainability. To achieve successful collaboration in projects, there are other sources that deem that communication, teamwork, mutual goal and coordination are essential factors. All these factors lead to good collaboration, which in turn can lead to higher possibility of a project being successful. When public and private actors work in collaboration, benefits can be gained. These public-private-partnerships can lead to saving in resources, sharing of the risks and improved economy.

4 Results and Analysis

This chapter presents empirical information. First, a collaboration model used and collected by the company is presented. After the model, a compilation of interviews will be presented.

4.1 Collaboration model by Älvstranden

The company has created their own collaboration model when working in consortium with public and private actors. It is presented as a model that is inspired by public-private-partnership. All the actors are involved in the process of design and qualities in order to achieve a common agreement. Älvstranden states the reason working behind the model is to create commitment in the group, sharing resources, access to a wider base of ideas and take advantage of earlier experiences from the actors. Älvstranden states that factors for achieving a well-functioning collaboration are flexibility, create a win-win situation, transparency, clear responsibilities and what the actors will get out of the project. There are also challenges working with the model, these can be the number of involved actors, turnover of employees, too much resources and competences, balance between business interests and sustainable city development, sharing knowledges and return experiences to the organization after the project. The model can then also lead to obstacles and not only success factors.

All the construction actors are involved from the beginning and create the area without being assigned a place to build. Once that phase is finished, then the actors get assigned where they are going to build in the area and then the implementation phase takes place. Different groups had responsibility for different parts, for example sustainability, communication, costs, social diverse accommodation, mobility and businesses.

4.2 Interviews

These results will be presented in two tables with different criteria. Table 4.1 will present the collaboration of the project and some criteria that are important for a successful collaboration. Table 4.2 will present the project in terms of quality, budget and time. Inside every table the answers will be presented as short sentences of what the majority of interviewees have said and also what the minority have said.

Table 4.1 Collaboration of the project and criteria for successful collaboration.

Criteria	Majority of answers	Minority of answers
Common target and vision	Common agreement about the target and vision Clear picture of what was expected to achieve	No clear vision about the area A clear target of what was should be achieved of the residential area project
Commitment	High commitment The actors were on the same page on what should be achieved	When two were done with their projects, they withdrew from the consortium Different timephases
Communication	The communication was experienced as well Good web portal	Good webpage
Level of ambition	Experienced there was a mutual level of ambition to achieve the expected projects	Some actors are well known for deliver higher quality than others, which can affect the ambitious level
Coordination	Älvstranden's collaboration model was appreciated Changes of personal, employees and project leaders were a disadvantage The client and project leader were a success factor	Poor collaboration with the municipality with the ferry stop

4.3 Vision and target

When the design for the area was decided, all the actors put up their blueprints for their constructions in the area on a table. This provided possibilities for everyone in the group to evaluate and comment on each other's final designs on the buildings. This created a higher level of quality said some interviewees. It was much focus on accommodations/apartments in the area. Five interviewees said that it was more focus

on the design on the houses rather than the vision about the area and how that was going to be. In the startup phase, it was a clear target. But when all actors started to build, they shifted the focus from the city area towards their own buildings and in turn forgot about the vision and neighborhood. The vision about the area disappeared during the project time. One interviewee said: “The vision about the area should be a part of every meeting to remind everyone to not forget the vision, remind the actors that they are part of building and creating a whole city area, and not just building their own buildings”. One more interviewee expressed that all actors had their own agenda about the project, they created their own interpretation about the vision and then adapted that to their own production targets and ability.

Overall, all the interviewees agreed on there being a clear target about what should be achieved, which is indicative of there being a shared goal. According to most of the interviewees, there was a design program that stated and gathered information and content of the area in a detailed way. This made it easy for everyone in the team to understand the object and purpose of the project. Thus, five of the interviewees stated that they missed a clear overall vision of the area. Furthermore, all interviewees expressed that the content was clearly described by the client about what they wanted to achieve. All the interviewees mentioned that this was a success factor for the project. Eight interviewees stated there was no vision about sustainability of the area and that was something they missed. The interviewee representing the association of the residents, stated the actors had a mutual vision about the area and did not experienced that every actor had their own vision.

4.4 Commitment

Commitment to the project was found to be high. There were five interviewees mentioning that two of the project actors withdrew from the collaboration when they were finished with their part of the project. Two of the interviewees said that their action went against the essential core of what constitutes a teamwork and expressed: “All for one, one for all”. Two of the interviewees also expressed that when one of the actors withdrew from the collaboration, bad atmosphere was created in the group since their action was seen as selfish. By that action, the interviewees expressed that they experienced the members who exited the collaboration as showing a lack of commitment to the consortium and stressed that in a successful collaboration everyone are supposed to work together from the beginning to the end. The fact that two team members withdrew from the collaboration can be indicated as an obstacle for achieving fully exploited collaboration. According to five interviewees, there was a lack of engagement during the project when all the actors had different time phases in constructing their buildings. This led to a lack of commitment among actors which had a starting building phase a few years in the project. These actors were not engaged in the beginning when the first actors started to build and those in turn had to take a heavier effort to start up the project. But the engagement was higher when big actors had several projects running at the same time in the area, stated some of the interviewees.

4.5 Communication

Communication during the collaboration in the project worked well according to all of the interviewees. The project team had a web portal for the project team where the communication was carried out, which was appreciated by the participants of the

collaboration. For example, in the web portal the actors could log their deliveries with material to the construction sites during the construction phase, so everyone could see when and where those were going to happen in the schedule.

Furthermore, regular meetings with the involved actors were executed and done in a pleasant way and were clear for everyone during the meeting. A webpage was created for the whole city project. This webpage contains information of what was going on now, what was in the pipeline and the buildings was projected in a 3D-fashion (BIM). This was a good tool, stated five interviewees, and it facilitated the communication where everyone could get a good overview of the city project. The satisfaction that was expressed by the interviewees regarding the communication seem to be due to the web portal being a successful tool for executing the communication, which can tend to be one success factor of the project and the collaboration. Even between Älvstranden and the association of the residents the communication functioned well, with one contact person from Älvstranden for managing the all communication. During the construction, signs inside the area helped to show what was going to be built in the area. So, the communication towards future citizens was managed in a good manner and contributed to positive communication.

4.6 Level of ambition

According to the interviewees, the level of ambition for delivering the expected products was found to be overall good among the actors. Five of the interviewees mentioned that the actors who withdrew from the collaboration as not having the same level of ambition as the other actors since they left the collaboration at an early stage. Six of the interviewees also mentioned that some actors are well known for delivering more high qualitative products than other actors, which affect the level of ambition among the actors. Even though it was a good overall agreement, two interviewees said that everyone had different level of ambition regarding the material, it differed depending if the actors were private or public. Further on, the level of ambition in quality on the buildings was uneven over the area. The same with construction security at site, it was varying much between actors how well they kept to the security at the construction site, stated a few of the interviewees.

4.7 Coordination

Eight interviewees expressed that the actors took advantage of the consortium by creating common market events together in the area. These events were aimed at marketing the area in general to create awareness of what was coming and targeting potential customers for the apartments that were going to be built. All interviewees said these events were successful since everyone came together in the consortium, they shared the costs of the events, but it also created good atmosphere among the actors. This can be seen as good teamwork by all actors, leading to better collaboration within the consortium. One interviewee, though, said that there were too many of these events and that led to over exceeding the budget, which created some frustration among the actors in terms of who shall cover these expenses. These activities contributed to the budget overrun.

According to 13 of the interviewees, Älvstranden's collaboration model was a successful model to work by. They expressed that in the beginning every actor

contributed to the area without knowing which areas they were going to be built on. Five interviewees stated that this was creating a more even quality and focus from everyone on all the land and content of the whole area. This to avoid sub optimizing from every actor on the area.

A majority of the interviewees complained about change of personal, employees and project leaders in the consortium. This was experienced as sometimes badly managed when new employees were coming onboard. Eight interviewees agreed about that new staff was not communicated and briefed about the vision of the project, which resulted in loss of drive and pace in the project. There was no clear picture of how this was going to be managed. This can be a factor that impedes collaboration. One interviewee said: “It should consist a short document about the area and vision about it that every new employee should read through to get knowledge about the vision of the area”.

The majority of the interviewees expressed that the client and project leader, Älvstranden, was a good leader of the project and that had the right experience of leading and driving similar city project forward. The collaboration with Älvstranden was experienced as trustful, according to the interviewees. “The project leader was a key person for the progress of the whole project” said one interviewee. “The project leader gathered everyone together and had a good structure” stated another interviewee. A majority of the interviewees also stated the Älvstranden had little turnover of employees during the project, which they saw as advantageous. These statements, related to Älvstranden, from the interviewees can be indicated as success factors of the project and contributed to keep a good level of collaboration.

During the interviews, some complaints emerged about that the area did not have the ferry stop that was planned in the beginning. Five interviewees expressed that the municipality should have been part from the beginning in the project to assure the ferry stop would be finished in a good manner in time. The ferry stop should be in place there by a time ago, this is a failure that it has not been realized yet, stated some interviewees. This can be seen as bad collaboration and communication with the municipality. Since they have the responsibility of the public transport, they should have been part in the beginning and promised to build the ferry stop.

From the opinion of the person representing the residents, the coordination with Älvstranden was good, but it was too much and heavy administration from the public sector to contact sometimes when information was needed about something. This association of the residents took over the webpage the consortium let create in the beginning of the project. This webpage is appreciated among the citizens and today it is used to market the area, act as a meeting point to connect different small businesses, and is seen as a good channel for communication, according to the interviewee from the residents. The webpage is also showing a schedule of what is going on in the area. This can be seen as a successful tool for coordination. A coordination and market channel that was created of the consortium but then can continue to live and create value for the citizens must be a valuable product.

Table 4.2 Project in terms of quality, time and budget.

Criteria	Majority of answers	Minority of answers
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Quality	Everyone agreed it was a high-quality area	Cheaper materials in some buildings
	Closeness to the water created a desirable area	Only build luxury apartments
	High quality in facade material and interior	Too few offices - few people around in the day
Time	Delays due to the financial crisis	Building the streets was delayed
Budget	Consortium's budget was not held	Bad estimation of the budget of the project from the beginning
	The actors' own budget of their projects was profitable	

4.8 Quality

All interviewees stated that there existed a common agreement that Västra Eriksberg was a location where high quality was going to be implemented in the area. From all the interviewees of the consortium, the area was described as: “Its closeness to the river and an old former shipyard was going to be transformed into a living mixed city area”. From the answers, many interviewees saw its potential and understood the apartments could be sold to a high price to the end customers. This led actors to build with lavish space in some apartments and overall high material and good facilities, for example some buildings had pools on top of the roofs. High standard and high quality were implemented in the facade and the interior of the buildings, were common statements from the interviewees. The area contains many balconies on the buildings in comparison with other city districts, stated one interviewee. One interviewee said: “This area is one of the city’s best location and therefore we want to build with high quality to offer our customers the best our company can offer, this even includes customer designed top apartments”. But according to that interviewee, it was not a successful move because the customers had bad knowledge about how they wanted their apartments. From this information, a good agreement about the quality of the buildings and the apartments were implemented by everyone.

One interviewee saw potential in establishing a stronger brand of its company by building with high quality, in order to market itself and its products. In some buildings, there wasn't the highest quality overall. Many interviewees stated that one actor started low and increased the quality from the first building to the last building, while another actor reduced the quality when the financial crisis hit the market to save money. Two actors did not want to build with bricks and instead chose a shortcut, deciding for cheaper material in the facade. This can be seen as the level of quality and ambition differed when it really came to the point.

The actors built mostly accommodations in the area, with a few facilities for shops, restaurants and small office companies. Some interviewees saw a downside with too

few facilities for businesses, which leads to few people in the daytime in the area. This in turn makes it hard for day businesses to survive. Together with few businesses in the area, six interviewee's opinion was about the lack of social meeting points in the physical environment and the environmental aspect of the area. "The buildings were prioritized and first built in the area, but not the social physical meeting points and the flow of people, these became as it became" described one interviewee. The downside point of this was that there was more focus on the buildings rather than social aspect and the social meeting points in the area. One interviewee stated that: "It was too many residential developers in the planning phase in the beginning, it should have been less residential developers and more commercial developers". One interviewee said: "If the intention with the area was to build a vibrant mixed city area with flourishing streets with businesses and a variation in citizens living there, then it is a complete failure with the whole project". Another interviewee said: "It feels like the area is just halfway finished; something is missing". The interviewee pointed on the lack of businesses and small everyday shops in the area. When summarizing these comments and looking from this social perspective, the quality standard of the area is insufficient.

Opinions from the citizens living in the area, represented by the person of the association, gave a general positive feeling about the area. Common statements were that there are many sun hours, the dock life is fantastic, and the area invites people to a healthy lifestyle as seen by many people jogging or walking. People from other parts of the city are also coming to enjoy the water and docks. But the buildings are a bit square shaped and are built too close to each other. There is a wish for "more easily accessible 24-hour parking along the streets in the area and not only short term". "Better utilization of the roofs on the buildings, for example plantation areas, a common terrace or solar panels would have utilized the buildings better and felt more adapted to modern time" expressed the interviewee. More long-term daytime businesses on the ground level that pays rent over a long time period would benefit the area, and an overall better overview over the local businesses are things that should been in place according to the interviewee. To evaluate the level of quality, one can see it varies depending on which factors are looked on. Some factors seem to be well satisfied and some factors are not satisfied.

4.9 Time

The construction of the area started in 2005 and was planned to finish in 2015-2016. Seen from most of the answers, the timeframe of the area did not reach the initial plan to finish the area. The financial crisis in 2008 was a factor that delayed the project and slowed the process of the area according to the interviewees. Optimistic estimation of the time frame from the beginning was another factor. All the interviewees answered that their own projects were completed in time and according to schedule. The whole area is still not completed today with small details left to complete. One interviewee said it was not a problem that the area was delayed with several years and it did not create any problems. Four of the interviewees said the streets took time to complete and it was problem with the foundation under the roads after they been built. The roads were needed to be rebuilt and that created irritation among the actors, especially when people were going to move in in the buildings and the streets were not yet finished which in turn created irritation of the inhabitants. "How can it take so long time to complete the streets?" said two interviewees. "It would have been better to finalize everything in one move instead of taking it part by part" commented the person

representing the residents about the time to completeness. Two interviewees said that late changes in the design program created irritation and prolonged the project. The planned ferry stop is also one factor why the area is not completed yet. The person representing the residents agreed with the ferry stop. These are all factors that contributed to that the area is still not finished today and slowed the progress of the project.

4.10 Budget

The consortium had their own budget where every actor shared costs and rewards that were connected to the area. Some of the costs that the consortium shared were marketing costs, events connected to showings, construction of the docks, roads for construction of the area and parking space. In addition, every actor had their own budget when they were constructing their buildings. Information from documents about the budget and interviewees show the expenses for the consortium was over the initial budget set for the project. It was overrun by almost 100%. The budget was poorly estimated from the beginning. During the project the budget has been recalculated a few times to balance and mirror the costs and income. Marketing costs, safety measures for the ground next to the water and small additional costs contributed the overrun of the budget. Lack of knowledge how to build the protection at the docks from sailing boats made it more expensive than expected and the marketing costs became higher than expected from the beginning. Four interviewees said that the budget should have been better estimated, accounted for and followed up with the plans better than it did. This in turn created irritation in the consortium, people were upset when it turned out the budget was overrun by 100% and it created a discussion and dispute about who shall be accounted for these costs. In the end it was divided equally among the actors in the consortium. One interviewee said: "If that management team that was responsible for the budget was in a private company, that whole team would have been fired and replaced". The same interviewee continues: "Private companies usually accept a 10-15 % increase of the estimated expenses but definitely not 100 %". One interviewee said: "There is a high risk in such a large project which makes it hard to estimate the budget when it lasts for so long time, it would have been easier to divide the construction of the area into parts to easier have better control over the budget". All these factors are contributing that the consortium expenses went beyond the budget and should have been either better estimated for or better controlled, or both.

The actors' own project budgets were within projections. All the interviewees mentioned that the actors' projects in the area were profitable even when the financial crisis came in the middle of the project. Four interviewees mentioned that the owner of the land should have waited to sell the land to the builders instead of selling to a low price in the beginning of the project to fund the budget. Instead have waited for the market prices to get higher with time and made a profit of the land. From the actors' perspective, their own budget and their financials were profitable, and it was a successful project to be part of and build on Västra Eriksberg.

5 Discussion

This chapter discusses and compares the empirical data with the theory. Lastly, a criticism of the report done by the authors is presented.

5.1 Collaboration

Comparing Älvstranden's collaboration model with the theories one can see similarities. Duffy and Fearné (2004) support the move from arm's length partnership to a more strategic partnership that can be identified in the collaboration model from Älvstranden, where all the actors are working together to shape and create the area that is under development. The intention of the model is to create long-term mutual benefits for the actors, share goals and create a collaborative environment. Sharing risks, information and rewards are also a part of the collaboration model to create a close partnership, which the theory about partnership is supported by Ellram and Hendrick, (1995) and Gattorna and Walters, (1996). This can be seen in the collaboration model by Älvstranden, where everyone showed what they were going to build, and risks were shared in the consortium.

The theory about trust by Rousseau et al (1998) can be related to the collaboration model where the actors trust that the other actors take rational decisions in benefit for the consortium. In the consortium, both private and public actors are working together. HM Treasury (2000) describes this as a good way of taking advantage of the private sectors skills, competence and the more efficient way of delivering projects. Huxham (2003) and Wilkinson (2005) agrees to this view of collaboration, it creates an open environment where trust, honesty, mutual respect and understanding act as foundation.

From the interviewees, it got clear that there was a high commitment overall, same level of ambition, a good communication and a shared goal during the project which contributed to good collaboration. All being factors are supported by previous research (Birnie, 1999; Haajskoold et al, 2020; Massihie et al, 1992). The interviewees did not appreciate the fact that two actors withdrew the collaboration and that the municipality was not involved in an early stage. These facts can be factors that prevented the members in the collaboration from working together during the whole project time.

In line with Huxham (2003), a majority of the interviewees pinpointed that a success factor related to the collaboration was the good leadership from Älvstranden. Change of personal, employees and project leaders in the consortium were many interviewees complaining about and could be one obstacle of achieving a successful collaboration during the project. The interviewees experienced that this was badly managed when new employees were coming onboard and that it affected the collaboration in a bad way. When new members are leaving and joining the collaboration frequently, it can be hard to establish a team that is part from the beginning to the end of the project.

5.2 Quality

According to Kerzner (2013) and Pinto (2013), quality is one of the factors for achieving a successful project and the finished project should meet the specifications. However, what is good quality? Every actor followed the design program over the area, and everyone understood and agreed about it was a good location in the city. These

buildings were worth to build with high quality and would generate a decent return on the investment. There is a common agreement from the theory about importance to agree about the objectives (Bring and Akintoye, 2005; Haaskjold et al, 2020). Everyone needs to be agreed about the level of quality to create an attractive area. On the big picture, everyone agreed about the level of quality of the area. But on a more detailed level, the answers from the interviews implied that there was an uneven level of quality, especially in the material on facades and on the buildings. This can be indicative that quality can be interpreted and perceived differently from actor to actor. An effect the financial crisis had was that the financials became a more important part. Actors took shortcuts in the material and built smaller and more apartments to save the budget. The collaboration goals can be related to the goals of the consortium or the area, and the organization goals to the specific actor which resonates with the theory about collaboration in partnerships by Huxham (2003). When the financial crisis came, the actors changed the focus from the collaboration to their own organization, to focus more on to build apartments that were easy to sell and secure a decent profit.

Block (1998) proposes a different way of creating value for the future. If the consortium carried out the project in a successful manner, it can probably in turn lead to more future development projects when the recent project can act as a reference project, which can help the business to grow. On the organization level, to create desirable and high-quality apartments can help to grow the actor's brand awareness, as one interviewee stated, and attract customers for future building projects.

From the interviewees, it came complaints about the lack of living streets and local businesses making the area lively in the daytime. It might not affect the actors that built the area, but the citizens that are going to live in the area. Kerzner (2013) and Shenhar et al (1997) present different perspectives on how looking at project success. From the citizens perspective, considering the level of quality by flourishing streets and a lively area, the project might not be so successful from the social and local businesses perspectives. This can be seen as a result of the developers were focusing more on the actual buildings rather on the whole area. This in turn created that the social flow and meeting points got sub prioritized in favor for the buildings. The project's success can then variate depending from which perspective to look on.

5.3 Time

Both Kerzner (2013) and Pinto (2013) deem that time is a factor for project success, the project shall be finished according to schedule. Some actors finished their productions in time and according to schedule, while the whole construction project did not finish in time. This can be seen as a project failure according to these above-mentioned sources. From the interviews, some factors disturbed the time schedule which resulted in delays for the whole project. The roads took time to complete, much longer than it should take, said some interviewees. This can be derived to collaboration matters in the consortium. The financial crisis impacted the schedule, this was an unpredictable factor that had a major impact. The ferry stop is still not running and can be claimed as a contribution factor that the area is still not finished.

5.4 Budget

One of the factors for a successful project is when the estimated budget is held, according to Kerzner (2013) and Pinto (2013). The consortium budget was overrun by the double of the estimated. This can be due to bad estimation, lack of inspection or too many unexpected expenses that arose during the project. This created irritation among the actors and spread in the consortium. This budget overrun can also lead to other problems among the actors, such as lower trust and commitment.

Looking on the actors' budgets, most of them made a profit of the project, even when the financial crisis interrupted the market in the middle of the project. This can indicate that it was a popular location to live in and it was a good business to build with high quality in the apartments.

5.5 Authors own critique of the report

Looking with critical eyes on this report we identify some factors that can be important to have in mind. Restrictions in time and resources is a limitation and can affect how deep the analysis of the topic can go in the report. Benchmarking this consortium and city project with other projects might have offered a better evaluation of the performance. By comparing with other projects would have created a more reliable evaluation. Next factor is that the answers of the interviews can be biased. Since the actors answering about their own projects, it can be hard to criticize your own work, and this should be considered. Another important factor is the evaluation of time and budget. These are based on interviews and documents from the company. The numbers are sure right, but to really investigate, a more deeply investigation needs to be done in these documents, together with more time spent with the CFO and controller that have more knowledge about this information. Looking on the quality factor, information has been taken from documents and from interviews of actors and residents living in the area. To really answering the quality level, a definition about the quality and what this is should have been done from beginning. Because the quality can be hard to describe and be perceived differently depending the stakeholder, this would help to answer that question and in turn more easily measure if the quality aspects have been reached. An alternative method to semi-structured interviews could be to use a questionnaire instead or as a combination, this could have shortened the time consumption to compile the answers and to easier quantify the answers.

6 Conclusion

The conclusion chapter answer the research questions and offer recommendations.

- **What were the success factors/obstacles for this project?**

Success factors are good leadership by the project leader Älvstranden, in combination with that they had the right experience and were clear about what they wanted to achieve with the project. The obstacles can be the fact all actors were not involved in the project from the beginning to the end and high turnover of employees and project leaders. These success factors and obstacles are related to the organization and collaboration of the work. Further on, Älvstranden's collaboration model in itself can be seen as one success factor.

- **What is characterized by a successful collaboration within a project and how is that realized in the Västra Eriksberg?**

This study has shown that important factors for achieving a good collaboration are mutual view of the goal, good communication, mutual commitment and same level of ambition. All these factors have been realized in the Västra Eriksberg project, but the commitment and level of ambition that were experienced as partly poor. The webpage, web portal and the mutual market events by the consortium created a well-functioning manner of communication.

- **What were the outcomes of the project in terms of quality, time and budget?**

Quality:

In many ways, the area has reached a high level of quality. The buildings, the materials and the environment inside the area have all contributed to a popular city area for the residents according to the residents. They seem to enjoy the area with the river and the docks. Adjacent to the river, the docks and a city park show that the actors have managed to create a popular district to the city. The consortium mutually agreed on it being an area that had a chance to become one of the best areas in the city, with its history and location by the river. But there are things that could be better; the uneven quality in the materials and buildings, more social life on the streets and utilizing the roofs better.

Time:

The project's time frame had an initial frame of 10 years from start of construction to completion of the district. It should have been completed round 4-5 years ago, and it's still not finished today. So, the time frame of the area was not completed in time even though some of the actors completed their constructions in time. Optimistic estimation of the time frame, financial crisis and the construction of streets contributed to exceeding the time frame.

Budget:

The budget of the consortium was exceeded, optimistic estimation of the expenses and some costs higher than anticipated can summarize the budget. Two major factors that contributed to this, were marketing costs and the protection at the docks from sailing

boats. Even though the consortium budget was not held the actors made a decent profit out of the project.

6.1 Recommendations

The way Älvstranden is working in consortium are similar to concepts that previous research has shown to be successful. However, there are ways to improve the consortium and make the collaboration work better during the project. The following recommendations can improve the consortium and add value for future projects (See Table 6.1).

Table 6.1 Recommendations.

Improvements	Explanation
Communication	Not lose the vision of the project
Consortium	Make sure the actors are together from the beginning to the end of the project
Quality	A better overview over local businesses and social aspects

6.1.1 Communication

In the beginning of the project, every actor was clear about the vision of the project and the area. But when all actors were starting to build their objects, they forgot the vision about the project and focused on their own objects. They adapted the vision to their own organization's production targets and abilities and forgot that they were part of developing and creating a whole district for the city. To not lose sight of the larger vision, the vision needs to be communicated during the whole project to everyone involved in the project. One way could have been to visualize it in every meeting the actors had. It could be the introduction on the meetings so everyone would have been reminded of the vision and how the area should be.

During such a large project, there is a turnover in project leaders and employees. When the actors introduce a new project leader or other relevant employee, they should be reading about and/or introduced to the project vision. It can be a short document that has a summarized version of the vision and the project. This would inform everyone how the area will look like and how their own buildings fit into the vision and contribute to fulfill the city area.

6.1.2 Consortium

One improvement that was identified and would have a big effect on the consortium involves even distribution of the actors' building times in the project. This is related to the fact that some of the actors withdraw from the collaboration when they were finished with their projects. One way to make sure everyone is still active in the consortium from the beginning to the end is by a contract that is structured in such a

way to prevent leaving or making it costly to leave. The construction part of the project should be structured that everyone has a part of the project during the whole construction time, and it is not possible to leave when you are finished with your buildings. This would facilitate the collaboration spirit in the group and make it fairer to everyone involved.

In this project some of the actors start building some years in the project and a few had to make a bigger effort to start up the construction site. All actors should start at the same time with their projects in the beginning. Initiate the project together in order to share the effort of the starting up phase on the construction site. In turn avoid that a couple of the actors must start up the first phase which needs a bigger effort. This would also increase the engagement among the actors when everyone builds at the same time.

6.1.3 Quality

One way to increase the level of quality would be to increase the attention towards local businesses and social aspects. At the planning stage, it was a big focus on the buildings. More focus on the commercial perspective could have created a better mix and a more pleasant area. Get an overall and including view on what the area should have for commercial and local businesses. Increase the share of office spaces would add a stable income in terms of rent to the owners of the facilities, but also more people in movement during the daytime. This would help restaurants and cafés to survive in the area which have much residential today. Together with the commercial aspects, better planning for the flow of people and physical meeting points in the district, would benefit the level of quality in terms of liveliness and higher attraction in the environment.

6.2 Future research

Due to limitations in time and resources, the scope is restricted. However, if there was a possibility to proceed this report or other researchers to continue, a few of all possible directions are explained here. Do more interviews with all the actors involved in the project and go deeper and more in detail about how the consortium has functioned and how the involved actors perceived the progress of the project. A wider base of interviews would create a more extensive view of the consortium. One direction is to compare and benchmark this consortium that built Västra Eriksberg with a different city-built project by Älvstranden Utveckling. To identify pros and cons and better evaluate the performance and content of the project. Do more interviews with the residents would be helpful to evaluate more broadly how the area turned out. It would be interesting to connect the vision with the quality levels set from the beginning with the opinions of the residents on how they perceive the area. By having this, more detailed report could be conducted on what is good, what is bad and what the residents are missing in the area. This information can help to develop future projects in terms of what the developer should focus on. Another direction would be to go deeper in the quality, time and budget aspects. To conclude in more detail on why the time and budget schedule was not kept. The quality aspect could be addressed by investigating the initial definition of the quality, to measure if the facilities in the area are used as intended and if the people living there today are the target group that the area was built for.

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Appendix

Appendix I Questions to the consortium

Questions to the consortium.

Which role have you had in the Västra Eriksberg-project?	
During which period have you participated in the project?	
Can you explain how it was to work with the different actors in this project?	Good: Bad: Summary:
Compared with other consortium you have been part of, how did this perform?	Good: Bad: Summary:
Was there a common vision of the area Västra Eriksberg and what content it should be in the beginning of the process?	Yes: No: Summary:
Do you think all the actors had the same initial target picture of how the area should be like?	Yes: No: Summary:
What did you want to achieve in terms of quality as a building actor of the project? To which extent did you fulfill the quality ambitions? (Did you build what was planned from the beginning of the project?)	First question: Second question:
Did you experience that the quality was communicated and shared among the actors in a pleasant way?	Good: Bad: Summary:
Do you think all the actors had the same level of ambition to deliver the quality that was expected?	Good:

	Bad: Summary:
Can you explain how the communicated functioned among the actors during the project?	Good: Bad: Summary:
What was experienced as problematic and good with the collaboration according to you?	Good: Bad: Summary:
Was the project executed within budget? If no, what were the reason for that?	Yes: No: Summary:
Was the project finished within time? If no, what were the reasons for that?	Yes: No: Summary:
Did all the actors have the same amount of responsibility to fulfill the goal of the area? Was the risks shared?	Yes: No: Summary:
If you would have the possibility to redo Västra Eriksberg today, how would you do then?	

Appendix II Questions to the private actors

Questions to the private actors

Which role have you had in the Västra Eriksberg-project?	
During which period have you participated in the project?	
How did the collaboration go with the consortium and the construction actors who built Västra Eriksberg?	Good: Bad: Summary:
Comparing with other consortiums that you have been part of, how did this perform?	Good: Bad: Summary:
Was there a clear communication about the goal and qualities the area was going to have? Which were they?	Yes: No: Summary:
Did the public space in the area get much attention in the design program?	
Was it prioritized with social space and passages for pedestrians?	
What factors were good and bad, respectively?	Good: Bad: Summary:
Did the process go as planned with the area of Västra Eriksberg?	Yes: No: Summary:
Was it something that distinguished the project Västra Eriksberg in comparison with other projects?	Yes: No: Summary:

If you look at Västra Eriksberg today, did the public space become as it was originally thought?	
If you had the opportunity to redo Västra Eriksberg, how would you like to do content wise then?	

Appendix III Questions to the controller

Questions to the controller.

What role have you had in working with Västra Eriksberg?	
When did you come in and during what period / time have you participated?	
Was the project implemented within budget? Why / why not?	Yes: No: Summary:
Was it planned that Älvstranden would make a profit or incur costs?	Yes: No: Summary:
So far in the project, has it been a profit or a loss?	
Was the construction project finished in time? Why / why not?	Yes: No: Summary:
Was it something that distinguished the project Västra Eriksberg in comparison with other projects? Economically and in terms of time.	Good: Bad: Summary:
Marketing costs and the ground protection from boats exceeded by about double, what could it be?	
Were there any events in the progress of the project that affected the budget positively or negatively?	
Other comments or thoughts about Västra Eriksberg?	

Appendix IV Questions to the association for the residents

Questions to the association for the residents.

How did the cooperation with the consortium and the construction actors who built Västra Eriksberg go?	Good: Bad: Summary:
Was it clearly communicated what goals and qualities the area would have? What were these?	Yes: No: Summary:
Did the process go as planned with the Västra Eriksberg area?	Yes: No: Summary:
Did the actors build how it was planned from the start?	Yes: No: Summary:
How do you experience the area today? What is good and bad, respectively?	Good: Bad: Summary:
Is there anything missing in the area?	
Can you tell us about the material you sent us in advance?	
If you had the opportunity to redo Västra Eriksberg today, how would you like to do content wise then?	
Other comments or thoughts about Västra Eriksberg?	



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