



# Partners, right? The Role of Project Management Consultants in Partnering Projects

Master of Science Thesis in the Master's Programme Design and Construction Project Management

# DĀVIS BARBARS AND THOMAS ODAMS

Department of Civil and Environmental Engineering Division of Construction Management CHALMERS UNIVERSITY OF TECHNOLOGY Göteborg, Sweden 2012 Master's Thesis 2012:38

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#### ABSTRACT

Partnering in construction projects has been a recurring subject in the last few decades among academics and practitioners of the industry. Although an extensive amount of research exists on the concept of partnering it has, however, not been fully explored in the context of project management. Introducing partnering brings several new opportunities as well as risks for project managers. How partnering affects external project management consultancies working as client representatives and possible ways of adjusting to this change are investigated in this study. More specifically, a conflict of interest project management consultancies may experience on partnering projects is highlighted. Ensuring close cooperation and trust between the client and the contractor is recognized as one of the main responsibilities of client's project management consultants but, on the other hand, creating this close relationship might threaten the position of the project management consultants themselves. Without highlighting their contributions appropriately, project management consultants risk being perceived as less valuable to a project than they actually are. Therefore, it is vital to accent the contribution of consultants in creating an equal power balance between the client and the contractor. Equality is an essence of successful partnering and, most often, especially in cases of an inexperienced client, it cannot be achieved without the assistance of project management consultants who provide the client with the necessary knowledge, experience and expertise. Additional issues, for example the difficulties in guaranteeing project outcome project management consultants representing the client may experience, are also addressed. In order to explore these issues, a case study of a partnering project in Sweden was investigated where interviews with key persons were conducted, supplemented with a review of literature connected to the topic.

*Key words*: Partnering; Client–contractor relations; Project management consultants; Roles in construction partnering

Partnering, eller hur? Projektledningskonsultens roll i partneringprojekt Examensarbete inom Design and Construction Project Management DĀVIS BARBARS OCH THOMAS ODAMS Institutionen för bygg- och miljöteknik Avdelningen för Construction Management Chalmers tekniska högskola

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# Preface

This study consists of a literature review on partnering which has been compared to results from interviews with key participants on the partnering project Brinkåsen forensic psychiatry facility in Vänersborg, Sweden. The study has been carried out from January 2012 to May 2012 at the project management division at Ramböll Sverige AB, and at the Department of Construction Management, Chalmers University of Technology, Sweden.

The study has been carried out with Malin Svedmyr and Anna Thomsen as supervisors at the project management division at Ramböll Sverige AB. Their dedication to help us completing our work has been highly appreciated. We would also like to thank our supervisor at Chalmers University of Technology, Associate Professor Göran Lindahl, for valuable feedback and assistance. Thanks also to the staff at the project management division at Ramböll Sverige AB for welcoming us at their office, where most of this work has been done. Last but not least, we wish to thank those who we interviewed, and note that without them this study would not have been possible.

Göteborg, May 2012

Dāvis Barbars and Thomas Odams

# **1** Introduction

## 1.1 Background

For a long time the construction industry has been characterized by the adversarial nature of client-contractor relationships (Larson, 1997; Ng, et al., 2002; Bygballe, et al., 2010). Furthermore, it is being more and more recognized that some previous practices, for example assigning contractor by the lowest price, are obsolete. Thus, tendencies for creating win-win situations have emerged. It has been argued that achieving win-win situations requires a transformation of mindsets towards creating dialogue and close collaboration (Egan, 1998). One method that has been recognized for improving dialogue and collaboration is partnering. Partnering has in the last couple of decades gained attention from practitioners as well as academics. However, as it is still a relatively new concept, there is a lack of in-depth research on certain issues, for example its limitations from the different points of views of the parties involved (Bresnen, 2007). In addition, as Winch (2000) argues, partnering in construction has not yet showed the same great benefits as in other industries. As one of the issues that have not yet been fully explored, partnering in the context of project management can be pointed out. Moreover, due to the concept of partnering being relatively recent, many companies in the construction sector lack experience of it and might, therefore, not be fully aware of the possible risks and opportunities with such an arrangement. When implementing a relatively new concept such as partnering, previously set roles, responsibilities and power balances between the actors in a construction project might need to be reassessed. There could, however, prove to be difficulties associated with shifting roles in an industry such as construction where change processes are slow compared to other industries. On the other hand, in an ever-changing environment it is vital to keep an open mind to overlook obstacles and see the opportunities arising above the horizon when faced with new practices. Introduction of partnering affects all the parties involved in a construction project, with project management consultants not being an exception. All in all, in order for project management consultants to successfully implement the partnering concept and benefit from it, their contributions as well as potential risks associated with it need to be assessed.

## 1.2 Aim

The aim of this thesis work is to investigate and map the contributions of the client's project management consultants in partnering projects. Moreover, it aims at examining potential risks project management consultants face in partnering projects where roles can become vague, responsibilities overlap, and the power balance between the client and contractor may shift.

The purpose is to contribute to project management consultants' understanding of their role in partnering projects and the risks associated with it, and thereby possibly contribute to developments/improvements of their business activity.

## 1.3 Method

This Master Thesis consists of two parts; the first part is based on a literature review of academic articles and books, and the second part is based on findings from interviews with key persons involved in a case study. In order to search for literature on partnering, various databases for academic articles were used, for example ScienceDirect and Emerald. In the early stages of the work process, key words and phrases were used to acquire information about partnering in general from previous studies. Much focus in this stage was put on positive versus negative aspects of partnering, as well as finding previous literature reviews. Subsequent to reviewing the articles found during the search, they were sorted and prioritized according to relevance. 18 articles were ranked as the highest category of relevance as they addressed issues specific to project management consultants in partnering. From reviewing the 18 articles further, these were used as benchmarks for expanding the search to include an increasing number of articles and other literature in the study. Moreover, the further into the work process, and the further the aim of the study was narrowed, the more precise key words and phrases were used in additional database searches. From summarizing the most relevant literature, a number of research questions connected to the aim were developed to highlight questions that were left unanswered in the literature.

In the interview part of the thesis, a structured interview approach was used in order to focus on the relevant issues revealed by the literature studies. A list of key persons from a case study, Brinkåsen forensic psychiatry facility in Vänersborg, Sweden, was developed and each person was approached individually. The first two interviews aimed at acquiring knowledge and a broader understanding of the project in general. However, some questions were still left unanswered and these, together with the research questions developed from the literature review, made the basis for the following interviews.

In order to compare the practices of the partnering arrangement at the Brinkåsen project to literature, a series of nine separate one hour long qualitative interviews were carried out with key stakeholders, including two representatives from the end user, two from the client, three from the contractor, two from the project management company and one from the architect. In addition, one interview was conducted with a project manager from another project management consultant company, focusing more on the partnering concept in general rather than a specific project. The interviews were semi-structured based on a guideline of questions (see appendix) which was modified depending on what type of organization the interviewee represented. In practice, the interviews were formed as discussions rather than interviews where the interviewee was asked to talk about the project from start to finish and give his/her opinions on how well the different stages of the project were executed as well as how roles and responsibilities were defined during the different stages. The role of the interviewer was not mainly to ask the specific questions but more specifically to steer the conversation so that all questions got covered in the interview.

A qualitative research methodology was adopted in order to gain a more in-depth understanding of the topic. This method was chosen because deep analyses of the investigated issues may be difficult to convey quantitatively. As literature within the field of research methodology has pointed out, there could be limitations for using interviews as data collection method. Interviewees might be reluctant to give accurate and completely honest answers due to lack of knowledge, confusion, memory loss, etc. (Breakwell, et al., 1995). On the other hand, opting for qualitative research gives the ability to more fully describe a phenomenon, and, in addition, it is believed to give more meaningful and comprehensible information (Stake, 1978; Lincoln & Guba, 1985).

## **1.4** Scope and limitations

This thesis focuses on the project management division at the construction consultancy company Ramböll Sverige AB, and one partnering project, Brinkåsen forensic psychiatry facility in Vänersborg, Sweden. The Brinkåsen project had a public client and was funded by tax money and, thus, certain requirements in the procurement and levels of transparency differ compared to private client projects. This should be considered when comparing results to other studies. Moreover, in partnering projects, people relations are essential and, therefore, partnering practices are influenced by the culture of the country the project is carried out in. Some researchers, similarly to Hofstede (1983), argue that the Swedish construction industry has its own unique characteristics compared to other countries, for example shorter power distances (Bröchner, et al., 2002; Kadefors, 2004). Consequently, this might have implications on how partnering is implemented and needs to be considered when comparing results internationally. Also, it should be noted that the project at Brinkåsen by many is perceived as one of the most successful construction projects in Sweden during the last decade. Considering the aim of this study, investigating less successful projects could reveal additional information.

# 2 Theoretical framework

## 2.1 The concept of partnering

## 2.1.1 History and definition

The construction industry has been criticized for a long time and there have been several causes for these criticisms – for example poor project performance, low productivity and lack of innovation and cooperation. (Egan, 1998; Wood & Ellis, 2005; Fernie, et al., 2006). It could be said that most of these problems arise due to the adversarial relationships that exist between the different actors working on a construction project. As the number of parties involved in any construction project is noticeable, and every party has its own agenda and goals for the project, opportunistic behavior and adversarial attitudes often emerge (Ng, et al., 2002). To a great extent, it can be explained by the competitive nature of the construction industry and the conflicting interests and objectives of the parties involved. The reappearing conflict between client's costs and contractor's profits can be described as one of the most persistent major problems in the construction industry (Larson, 1997). As these issues have become more and more discussed, several attempts to find solutions have been made.

Partnering has been exemplified as one of the most effective modern developments in the construction industry for improving project performance (Wood & Ellis, 2005). The roots of partnering can be traced back to 1988, when the U.S. Army Corps of Engineers Mobile District and FRUCON engaged in one of the first partnering relationships for the Oliver Lock and Dam construction project (Schroer, 1994). Since then, partnering has attracted growing amount of attention and continues to do so. Partnering has been applied in the USA, the UK, Australia and in South-East Asia for some time, but the Nordic countries are just starting to fully adapt the concept and partnering there is still in its infancy stage (Bygballe, et al., 2010). Being a relatively new concept, various definitions and understandings of partnering exist (Li, et al., 2000; Bubshait, 2001; Nyström, 2005). As one of the most comprehensive and widely accepted definitions, the one provided by the Construction Industry Institute (CII) can be mentioned:

"A long-term commitment by two or more organizations for the purpose of achieving specific business objectives by maximizing the effectiveness of each participant's resources. This requires changing traditional relationships to a shared culture without regard to organization boundaries. The relationship is based upon trust, dedication to common goals, and an understanding of each other's individual expectations and values. Expected benefits include improved efficiency and cost-effectiveness, increased opportunity for innovation, and the continuous improvement of quality products and services" (CII, 1991).

Literature makes a distinction between project partnering and strategic partnering. Strategic partnering refers to a long-time partnership between two or more parties during several projects (Winch, 2000; Cheng & Li, 2001; Beach, et al., 2005; Bygballe, et al., 2010). Although some researchers describe project partnering as a first step towards strategic partnering (Kubal, 1996; Thompson & Sanders, 1998; Cheng, et al., 2000), most of the research has been focusing on project partnering (Bygballe, et al., 2010).

## 2.1.2 Benefits and drawbacks

Several researchers have stated that partnering, if implemented successfully, can have many benefits, that far outweigh the costs associated with it. By using partnering a win-win situation between the parties involved can be achieved (Kumaraswamy & Matthews, 2000). Bygballe et al. (2010) state that the main objective of partnering should be to ensure that all parties involved in a project benefit from the partnering arrangement. Moreover, literature indicates the saved costs on the tendering process (Egan, 1998), more effective risk sharing (Larson, 1997; Ng, 1997), better control of the project (Bubshait, 2001), enhanced knowledge and labor utilization, improved communication and collaboration leading to fewer conflicts, increased satisfaction, reduced project costs, improved design, increased technical performance and shorter project delivery times as the main benefits of partnering. Long term relationships and partnering also add value due to the fact that there is no need to climb the learning curve over and over again at the start of each project (MacBeth & Ferguson, 1994; Larson, 1997; Dubois & Gadde, 2000; Dubois & Gadde, 2002). In addition, Bubshait (2001) identifies the increased motivation due to the collaborative spirit and team environment as another advantage of partnering.

However, partnering could have several downsides as well, and Green (1998; 1999) points out that critical views on partnering are often overlooked. Contrary to the aforementioned views, Bresnen (2007) indicates that partnering has significant costs associated with it and that it can even hinder innovation and learning. Moreover, Bresnen (2007) notes that partnering can lead to several forms of dysfunctional group behavior, for example groupthink. Furthermore, many researchers have pointed out the lack of empirical evidence of the positive impact partnering has on construction projects and that measuring these benefits can be extremely difficult (Larson, 1997; Bresnen, 2007; Gadde & Dubois, 2010).

## 2.1.3 Prerequisites and critical success factors

Literature also highlights that there are certain requirements and prerequisites that should be met in order for partnering to succeed. As the critical success factors for partnering, commitment, trust, preparation, equity, mutual goals and objectives, involvement of appropriate parties, continuous joint evaluation, timely responsiveness, usage of partnering tools, procedures and support from the senior management are recognized (Harback, et al., 1994; Larson, 1995; CIIA, 1996; Larson, 1997; Black, et al., 2000). Ng et al. (2002) also point out the importance of leadership, improvement of communication, empowerment of stakeholders, evaluation methodology and willingness to accept mistakes.

However, it can be observed that previous research on partnering particularly stresses the importance of trust, which by many is believed to be the cornerstone of partnering. Black et al. (2000) describe partnering as more of a gentlemen's agreement based on trust than a formal contract or agreement. Bubshait (2001) supplements this view by saying that partnering relies rather on the use of common sense and a commitment to working together than unnecessary control mechanisms and paperwork. However, Larson (1997) points out that partnering is more than just a handshake, but it represents a considerable up-front investment in time as well as energy. There are opposing views on the appropriate balance between the usage of contracts and other tools in order to establish trust, and the reliance on social dynamics, cultural-structural aspects that would create trust naturally. One view argues that trust and collaboration can be engineered (Larson, 1997; Bresnen & Marshall, 2000b; Wong & Cheung, 2004), while the other view believes that trust can occur only naturally, and contracts as well as other tools can be damaging for a partnering relationship (Kadefors, 2004). Therefore, the middle-ground – flexible contracts – are often used in partnering (Rahman & Kumaraswamy, 2004). Bresnen (2007) points out that some of the tools, for example auditing, might replace trust with mistrust. In addition, he mentions the temporary nature of project environment as a significant hindrance for developing deep levels of trust.

Contradicting views also exist on the efficiency of financial incentives in partnering agreements. Rose and Manley (2010) present usage of financial incentive mechanisms as an effective tool that can exert a positive influence on construction projects by aligning the objectives of the involved parties. In contrast, Bresnen (2007) argues that the effectiveness of financial incentives in partnering is rather taken for granted than proven. He also indicates that agreeing on terms of gainsharing and painsharing in partnering projects can be a difficult task. Kadefors (2004) recognizes the potential risks of financial incentives as such incentives might diminish the perceptions of reciprocity and mutual respect and, therefore, reduce trust. Although the benefits of implementing financial incentive mechanisms can be significant they should be used with caution.

Another success factor often highlighted in literature is the involvement of appropriate parties. A number of researchers indicate that involving consultants, sub-contractors and suppliers in the partnering agreements is vital (Lewis, 1995; Dainty, et al., 2001; Miller, et al., 2002). It is believed that early involvement of these parties is essential for effective knowledge utilization (Lewis, 1995; Beach, et al., 2005). It can help minimize risks (Black, et al., 2000) and contribute to innovation (Håkansson & However, this is often neglected, and consultants, sub-Waluszewski, 2002). contractors and suppliers are not always fully involved in the partnering agreement (Bygballe, et al., 2010). A study by Fortune and Setiawan (2005) confirmed this by reporting that 30% of the partnering agreements investigated in the study did not include design and consultancy firms. There are different views on who benefits the most from partnering agreements. Bygballe et al. (2010) recognize the contractor as the driver and main beneficiary of partnering, but, in contrast, Ng et al. (2002) perceive the client as the one who should take the leadership role as clients often are in the position of being head facilitator of the partnering arrangement. Several researchers note that contractors might try to take advantage of sub-contractors by engaging in a partnering relationship with the client, but excluding sub-contractors from this agreement (Bresnen & Marshall, 2000a; Packham, et al., 2003; Bresnen, 2007). Black et al. (2000) and Bresnen (2007) also argue that clients often prefer the traditional power they possess over their suppliers and, therefore, do not believe that consultants and contractors should create partnerships. Due to these issues, subcontractors and suppliers often are skeptical about the partnering concept (Dainty, et al., 2001; Humphreys, et al., 2003). Consultants are believed to benefit the least from partnering and often are not as interested in it as the client and the contractor (Black, et al., 2000). A reason for this could be that consultants usually are less affected by the adversarial relationships in construction projects (MacBeth & Ferguson, 1994). Consultants also often feel less involved once the construction phase starts (Black, et al., 2000). The main benefit of partnering for consultants is the opportunity to create

better and longer-lasting relationships (Black, et al., 2000). In contrast to the aforementioned view, Griffiths (1992) argues that the number of partners should be kept to a minimum due to the investments required to create partnering relationship.

## 2.1.4 Obstacles for implementation

Research also indicates that there are several barriers that should be overcome, in order to successfully implement partnering – the corporate culture (Bubshait, 2001; Ng, et al., 2002), the traditional client-contractor-engineer roles and the time required to develop the partnership (Bubshait, 2001). If these requirements are not fulfilled and the obstacles are not dealt with appropriately, it can result in various problematic issues of partnering. Such issues include lack of stakeholder commitment, absence of win-win attitude, lack of empowerment, lack of technical knowledge, exclusion of parties, commercial pressures that compromise partnering attitude, etc. (Ng, et al., 2002). Furthermore, when considering partnering as an option for public projects, legal restrictions such as the Public Procurement Act should be considered. It is argued that easing these regulations and putting less emphasis on lowest price as a tendering assessment criteria might benefit public clients due to the opportunities associated with partnering (Ng, et al., 2002; Bygballe, et al., 2010). Several researchers argue that the tendering procedures and public procurement regulations are the main factors that contribute to the maintenance of the traditional short-term relationships in construction, which are often adversarial (Loraine, 1994; Ng, et al., 2002; Bygballe, et al., 2010).

## 2.2 **Project management in the context of partnering**

## 2.2.1 Aspects of consultant involvement

During the recent decades, there has been a tendency of using external project management consultants to manage projects on behalf of the client on an increasing number of projects around the world (Wilkinson, 2001). Several advantages as well as disadvantages for employing project management consultants have been identified in literature. The main benefits recognized by researchers include utilization of the consultants' knowledge and previous experience, particularly suitable for clients who lack knowledge and experience of construction or working in a project environment. As one of several advantages, Walker (1998) has identified consultants' ability to manage confrontations and act as a mediator in times of conflict between the client and other stakeholders. Moreover, in situations where inexperienced clients have difficulties in expressing their needs and technical requirements in briefs and tendering documents, consultants' ability to do so more accurately improves communication in the client-contractor relationship (Kometa, et al., 1996). Wilkinson (2001) reported that there are advantages for the client in having an independent and accessible contact point, as the client project management consultant works as a reference hub for the client. In addition, Wilkinson addresses the advantages in freeing the architect from the responsibilities of project management. It should, however, be pointed out that this is not applicable in the Swedish construction industry as the role of the architect to Sweden differs compared to several other countries where the architect has responsibility for project management tasks in addition to design (Bröchner, et al., 2002). Furthermore, research indicates that professional project management consultants can better understand, formulate and communicate the priorities and objectives of the client than the client himself, especially in cases where the client is inexperienced (Kometa, et al., 1996; Bowen, et al., 1999). All in all, Wilkinson (2001) summarizes the advantages of employing project management consultants in the way that "[the project management consultant] provides for the client clear definition of roles of parties involved, ensures accurate and adequate supervision of consultants, reduces in-house squabbles and fiddling, provides clear leadership".

In literature, project managers are often described as the party who is responsible for ensuring that the overall outcome of a project is successful. Some authors state that the skills and knowledge of project management directly correlates to the success of projects (Anderson, 1992). Research conducted by Anderson (1992) confirms that the highly skilled and experienced project managers tend to use the key project management practices and principles more, and it is believed to be empirically related to project performance. In contrast, several other researchers point out that a distinction between project success and project management success should be made (de Wit, 1988; Munns & Bjeirmi, 1996). It is argued that a project can be a success despite poor project management performance and vice versa – the project can be a failure despite highly skilled project management. Munns and Bjeirmi (1996) argue that project management is only one small part of the project and it is affected by many other factors outside the direct control of the project manager. They state that successful project management can contribute to success but is unlikely to prevent failure. It is recognized that all involved parties have a role in achieving project success, they all have specific tasks and responsibilities they must fulfill in order for the project to be successful. However, it is often stated that clients solely perceive project management as being responsible for ensuring a successful outcome of the project.

Literature also describes the key characteristics that project management consultant/client representative should possess to bring the above said advantages to the project. Walker (1998) mentions communication, team-building and interpersonal skills as the most vital ones for client representatives, as well as the ability to clearly communicate the priorities of the client's objectives. As another essential skill for client representatives, Walker (1998) states that they should be sophisticated in terms of knowing what is involved with the project regarding scope and level of complexity. Client's representatives should also be able to offer and accept advice concerning the design and construction. Wilkinson (2001) stresses the importance of having authority and respect among the other parties involved in the project. She indicates that, despite the highly qualified staff project management consultancies most often employ, they are still often perceived as lacking engineering knowledge and understanding. However, it needs to be noted that often project management consultants are a part of an engineering company. She also mentions lack of legal liability and inability to listen to other professionals, especially contractors, as the main problematic issues with project management consultants as perceived by other parties. In order to deal with this skepticism, it is crucial to build up sufficient credibility among the project actors, because the professional disrespect can be a major source of disagreement in construction projects (Wilkinson, 2001). However, it can be argued that in complex projects where the client has an insufficient experience and expertise, and/or his inhouse capabilities do not allow to manage projects without external help, project management consultants should be employed.

On the contrary, literature has presented other views on how employing an external project management consultant affects communication and collaboration between the

client and other parties involved. A study by Akintoye and Fitzgerald (1995) revealed that project management companies sometimes are perceived as "agents acting as uneducated blocks between architect and client", a view that is shared by Chapell (1991) who argued that a middle party, such as a project manager, can worsen communication between the client and the design team. This implies that they contribute to creating a silo effect in the partnering organization. This refers to a lack of communication and collaboration between parties, a state that is the opposite of the basic idea about partnering and which may seriously harm the project. Moreover, relations within project teams can be harmed as actors who usually have a direct access to the client can be resistant to involvement of external project management consultants (Wilkinson, 2001).

Several other drawbacks associated with employing external project management consultants are described in literature where an increased management cost is the most frequently mentioned. Wilkinson (2001) reveals that project management consultants are sometimes even viewed as "expensive parasites", "paper pushers in the middle of a project" or a "highly paid post box". These opinions could, at least partially, be explained by the bad reputation that sometimes is associated with the construction industry, as the bad image results in clients being suspicious of other actors in the industry. Another explanation could be that the role of project management is difficult to clearly define, and that the project manager's contributions become difficult to pinpoint due to an overlap of responsibilities with other actors.

#### 2.2.2 Partnering-specific reasons for consultant involvement

A successful implementation of partnering is characterized by close collaboration, trust and mutual objectives between all partners (Bubshait, 2001; Ng, et al., 2002). This cooperation and awareness of working towards a common goal might, however, result in overlapping and, sometimes, less distinguishable and partially mixed roles. As Bresnen et al. (2002) point out, this could, in turn, lead to confusion and ineffectiveness. Furthermore, contemporary partnering literature to a great extent stresses the importance of the client and the contractor working close together (Black, et al., 2000; Bubshait, 2001), but often does not recognize that this close relationship could lead to exclusion of sub-contractors and consultants. As a consequence of mutual understanding, trust and clear communication, responsibilities might not be as strictly distinguishable and the use for a mediator and controller diminishes. For example, Lindahl and Josephson (2003) have noted that in partnering projects, there is a possibility that a strong relationship between two partners can exclude other participants from influencing the project.

Even though it has been argued that partnering in its truest form should exclude any adversarial attitudes (Bubshait, 2001), in reality it might not be the case. As Alderman et al. (2007) point out, a certain amount of control should be exercised in order to assure that parties involved in the partnering agreement fulfill their assignments and that the project objectives are met. However, it has been stressed in literature that the essence of partnering projects is equity and equality between the client and the contractor and, thus, control mechanisms should target both parties (Black, et al., 2000; Li, et al., 2001; Wood & Ellis, 2005). Equality does not only refer to the ability of influencing decision, but also the extent of knowledge and expertise each party possesses. This was stressed by Crowley and Karim (1995) who stated that partnering ideally should be "equal partners working co-operatively to pursue a common set of goals", but also argued that the partnering concept might still mask the inherent power

inequalities in the relationship between client and contractor as well as contractor and sub-contractor. The unequal power balances might encourage opportunistic behavior and exploitation (Alderman & Ivory, 2007; Bresnen, 2007). This is seen in practice when one party tries to increase their gain and give prominence to their project objectives at the expense of other parties' gains and objectives. For example, if a client does not have adequate knowledge or possess the necessary experience to carry out their tasks in a construction project, it could become tempting for a contractor to take advantage of the situation. Therefore, if the client does not recognize and deal with his lack of knowledge and inexperience, the same conditions that result in adversarial relationships in traditional projects can be seen in partnering arrangements. However, as Bresnen (2007) points out, it might just as well be the other way around. Especially in times of economic recession, clients might take advantage of the contractor's dependence on him for future work. Still, the most commonly referred example, is that of the contractor taking advantage of the weakness of the client (Mohamed, et al., 2011; Vee & Skitmore, 2003), and in order to deflect the adversarial attitudes and opportunistic behavior that may arise, it is essential for the client to assure that he possesses the necessary expertise. In many cases, construction is not the main business area for the client, and therefore he has a need to hire external consultants that have the knowledge he lacks (Richter & Niewiem, 2009). With this knowledge, the client can be more involved in decisionmaking, ensuring that his prerequisites and objectives are met. Furthermore, when all aspects of the partnering agreement are implemented successfully such an arrangement is beneficial for the contractor as well, as client involvement is one of the cornerstones of partnering, thus moving towards a win-win situation for all parties within the partnering arrangement (Ng, et al., 2002).

## 2.3 The client–contractor relationship in construction

The following section relates to the roles of the client and the contractor in construction projects as well as the relationship between them. Construction projects are here divided into traditional design-bid-build projects and design-bid-build projects with a partnering agreement.

## 2.3.1 Traditional design-bid-build projects

#### 2.3.1.1 Role of the client

The role of the client in a construction project varies depending on several factors, for example uniqueness and complexity of the project, previous experience and need for consultants and sub-contractors. However, literature (Loosemore, 1999; Swedish Construction Clients Forum, 2006; Winch, 2010) shows that there are a few responsibilities that lie with the client on all projects. First, the client must control the competence of all stakeholders that are directly involved in the project. Second, the client should ensure that the user's needs and requirements are understood by those stakeholders. Third, the client needs to ensure that a well-functioning, project specific organizational structure is set up with suitable management arrangements. Fourth, the client should make sure that sufficient time and resources are available for the completion of the project. Finally, the client is responsible for transferring information from the planning stage to designers and information from the planning and design stages to the contractor.

#### 2.3.1.2 Role of the contractor

The contractor is an entity that the client hires to carry out the construction work. The contractor has to carry out the project according to client's specifications, deadlines, quality and cost provisions stated in a contract. Usually general contractors are also responsible for hiring and maintaining relationships with sub-contractors and suppliers who are responsible for certain parts of the project. In traditional design-bid-build contracts the contractor is responsible only for actual construction and not for design. This distinction between responsibilities of design and construction often leads to disputes regarding who has responsibility for defects. It could even result in opportunistic bidding behavior where contractors reduce the bidding price and try to profit from potential claims recovery for performing changes later in the project (Kadefors, 2004; Mohamed, et al., 2011). Contractors are sometimes described as having a bad reputation and willing to exploit the loopholes in the contract to their own advantage, due to the fact that contractors' profits are clients' costs (Larson, 1997). Thus, when using traditional contracts, contractors are not interested in looking for ways to save money for the client (Eriksson, et al., 2008).

#### 2.3.1.3 The interaction between client and contractor

In the interaction between client and contractor there are certain responsibilities that may overlap in traditional design-bid-build contracts. Bresnen and Marshall (2002) mention cost control and division of labour as the main overlap whilst other authors have emphasized risk management and safety control (Walker & Hampson, 2008). Furthermore, depending on type of project and client experience there may be overlaps regarding acquisition of permits and procurement of sub-contractors and suppliers.

As mentioned previously, client-contractor relationships often have been criticized for being adversarial and competitive. A study by Eriksson (2008) showed that Swedish construction clients' procurement procedures had a focus on competition rather than cooperation. He concluded that adversarial relationships often start even before the construction phase of the project starts, and that this notion of competitiveness persists throughout the whole project. Furthermore, he prescribes more openness and cooperation in general between clients and contractors.

Although there has been much emphasis on the negative aspects of the clientcontractor relationship, it has been recognized that the most important task for the client in a construction project is choosing the right contractor (Singh & Tiong, 2006). Thus, there have in recent years been attempts to improve the relations, for example through developing mutual objectives, establishing financial incentives and setting up trust-building activities (Kadefors, 2004).

## 2.3.2 Design-bid-build partnering projects

In partnering projects, the contractor usually gets involved at an earlier stage in the project than would have been the case in a traditional design-bid-build contract. This may lead to greater contractor involvement in planning and appointment of subcontractors as well as greater influence over project management in general. Moreover, a greater number of man-hours are often spent on team-building activities such as workshops in order to enhance collaboration. As a result of closer collaboration, the roles of the client and the contractor to some extent often change and overlap in partnering projects. As mentioned previously, the client-contractor interaction in partnering projects is supposed to be characterized by cooperation and abundant information sharing. This is one of the most significant differences partnering entails compared to traditional design-bid-build contracts. Moreover, trust-building activities and inter-organizational objectives together with an open books policy bring the client and the contractor closer than when working under traditional contracts. Some literature, for example Bubshait (2001), has pointed out this as the main reason for partnering to be superior to traditional contracts. However, if not clarified at an early stage, introducing partnering may lead to a greater overlap of roles and responsibilities which, in turn, could lead to ineffectiveness, and confusion about responsibility and authority (Bresnen & Marshall, 2002).

# 3 Case study

## 3.1 Project facts

Brinkåsen forensic psychiatry clinic is located a few kilometers south of Vänersborg, Sweden. With a gross floor area of approximately 16 500 m<sup>2</sup> it consists of 16 individual buildings built in a circle creating a yard with the buildings acting as an outer barrier which prevents the need for walls or fences (see Figure 1). 14 of the buildings are for patient rooms, one building contains common areas for patients such as a cafeteria and a gym, and one building is for staff and administration. The 16 buildings are connected by an underground tunnel in the cellar only accessible for staff and for transportation of goods as well as for movement of patients.



**Figure 1** 3D-model overview of the Brinkåsen facility.

The facility has approximately 200 staff and 82 patients in total, of which 54 are for forensic psychiatry and 28 are for general psychiatry. The most usual conditions for patients include psychosis, autism, attention deficit hyperactive disorder (ADHD), and personality disorder. Moreover, patients with personality disorders are divided on different blocks according to state of recovery, gender, and possible addictions. The facility is generally considered to be top of the line of its kind in Sweden.

A number of different views on the concept of project success exist among academics and practitioners. Often the so called "iron triangle" – time, cost and quality is used as the predominant criteria for measuring project success. However, it has been argued that the definition of success is more complex and a broader perspective should be considered. In order to examine if the Brinkåsen could be considered as successful, a framework consisting of eight components developed by Chan and Chan (2004) (see Figure 2) was used.



Figure 2 Consolidated framework for measuring project success (Chan & Chan, 2004).

With an estimated running cost of 153 million SEK per year, the facility opened in October 2011 after a construction phase that commenced in October 2009 and ended in September 2011. Budgeted cost for the project, including the planning and design phase was 556 million SEK. The total cost for the project when the facility was operational in October 2011 ended at 519 million SEK. Furthermore, apart from the savings of 37 million SEK, the project was finished to the day according to schedule. In addition, the end user's objectives of providing a safe facility both for staff and patients are considered to be met, as well as the client's objective for the facility to have an energy consumption of 80 kW/m<sup>2</sup> and year. Lastly, the Brinkåsen project has been signified by the high level of satisfaction of the participants involved. On the whole, all eight components of Chan and Chan's framework are met, and it can be concluded that the project can be considered as successful.

In the planning and design phase, it was decided that the project should be carried out according to a design-bid-build partnering contract with a cost plus payment form. In early 2008, main contractors in Sweden were invited to bid on the project, and in 2008 PEAB won the contract. In the procurement, much emphasis was put on soft values such as the organization as a whole and key persons (40%), the company's business model for partnering (20%), and the company values (10%). Economy was valued 30%. Subsequent to PEAB winning the contract, sub-contractors were appointed. The main sub-contractors as well as suppliers were invited to participate in the partnering agreement.

# **3.2 Project partners**

## 3.2.1 End user

The end user, NU-sjukvården, is a hospital group in the regional healthcare organization Västra Götalandsregionen in Sweden. NU-sjukvården includes five hospitals in the region stretching approximately from, but not including, Göteborg in the south, to the southern border of Norway in the north, and to the lake of Vänern in the east. With 5 000 coworkers, the organization offers specialized emergency as well as scheduled healthcare to 270 000 citizens, and have an annual turnover of 3.5 billion SEK.

## 3.2.2 Client

The client, Västfastigheter, is the main actor for accommodating organizations included in Västra Götalandsregionen, both through leasing facilities they own and through leasing property from an external owner, acting as a middle-hand between an owner and a tenant. Though healthcare institutions are their main tenants, they also house high schools and museums. In 2010, Västfastigheter owned properties with a total area of 1 740 000 m<sup>2</sup> and leased an area of 640 000 m<sup>2</sup>. The same year, Västfastigheter made investments in buildings of 1.3 billion SEK and had a turnover of 2 billion SEK.

## 3.2.3 Project management consultant

The project management consultant, Ramböll, is a major engineering, design and project management consultancy company. Ramböll employs around 10 000 employees and the company has a strong presence in Northern Europe, Russia, India and the Middle East. Ramböll is present in 23 countries with 200 offices worldwide. In 2010, the company accounted for a net profit of 215 million SEK and the company's revenue in 2010 was 8.2 billion SEK.

Construction project management is one of the divisions of Ramböll. Their main clients are, for example, public institutions or private client companies who do not have sufficient project management capability in-house or need additional competence on management tasks. Ramböll has main project management divisions in three locations in Sweden – Stockholm, Göteborg and Malmö – and several local branches across the country.

## 3.2.4 Contractor

The contractor, PEAB, is one of the leading construction and civil engineering companies in the Nordic region. PEAB operates nationwide in Sweden, and also conducts business in Norway and Finland. The company operates five construction business divisions in Sweden, one division in Norway, one division in Finland and one Nordic division that handles property development. At the end of year 2011, the company had 14 830 employees.

During 2011, PEAB received orders of approximately 38 billion SEK, and the company's operative net sales amounted to around 44 billion SEK. Trust-based contracts and collaboration with the customer is stated as some of the main values of PEAB. PEAB has done several partnering projects since 2007.

## 3.2.5 Other partners

In addition to the aforementioned partners, sub-contractors, other consultants and some main suppliers were included in the partnering arrangement. Most of these were procured according to a fixed price contract. The decision on which sub-contractors to procure was made collectively by the client, the project management consultant and the contractor.

Architect – Frenning & Sjögren Arkitekter Landscaping architect – Algren & Bruun Geotechnics – Ramböll Sverige AB Structural engineering – ELU HVAC – Bengt Dahlgren AB Fire safety – Bengt Dahlgren AB Electrics – Probeco/Sweco Safety – WSP

## 3.3 Organizational structure

In the design phase, before PEAB was involved in the project, the organization comprised of the end user, the client, the client's project management consultant, and some of the sub-contractors. The project was organized into a steering committee, a working committee, and a reference group with the objective to create involvement from all parties, see Figure 3. Proposals and solutions to problems that arose were developed in the working committee and brought to the steering committee where decisions were made. Decisions were then implemented by staff in the reference group according to what department was concerned. At this stage of the project, much emphasis was put on creating trust and building up positive relationships between staff involved. Apart from regular meetings, the working committee and the reference group participated in three workshops as well as other team-building activities.



Figure 3 Organizational structure before the contractor was procured.

After the procurement process, when PEAB had won the contract, the organization was re-structured with managerial staff from PEAB being integrated into the

partnering organization. At this stage, the partnering organization was named AB Brinkåsen and in practice acted as an independent fictional organization. The steering committee and working committee were kept but acted outside the partnering organization, see Figure 4. Moreover, the partnering organization included a project management team comprising of the contractor's project manager and the client's project management consultant. Acting as a hub in the organization, the project management team reported to an executive committee with representatives from the client, and had responsibility for planning, production and economy teams and actors downwards in the organization as well as contact with the steering committee and working committee.



Figure 4 Structure of the fictional organization AB Brinkåsen which was created after the contractor was procured.

## 4 Findings from interviews

## 4.1 Success factors and applicability of partnering

During the interviews, the perceived success of the project was often highlighted by interviewees representing all partners. Consequently, the reasons contributing to the success were sought after. The most recurring factor, stressed by all interviewees as a key success factor, was the importance of assigning the right persons for the right positions. Honesty, humbleness, trustfulness and commitment were described as the most important traits sought after when assigning key persons to the partnering organization. In the process of selecting people with these traits, much emphasis was put on the personality tests that were conducted in the procurement of contractor as well as sub-contractors. Moreover, the success at Brinkåsen was, to a large extent, attributed to the creation of the fictional organization AB Brinkåsen, which was denoted as a way of letting representatives from all partners contribute with opinions on decisions. This temporary organization was used to obtain specialist knowledge from every partner, to break down possible adversarial attitudes and to work as a team towards the common objectives. One interviewee described one of the main prerequisites for a well-functioning partnering relationship by stating that "It is important to utilize the contractor's knowledge and realize that he is not an opponent".

According to several interviewees, there was very little need to talk about monetary issues as the close relationship enabled partners to work in the best interest of the project as a whole. However, the interview series revealed that there were opposing views regarding payment principles. Several of the interviewees advocated a fixed price as a payment while others, in contrast, expressed concerns that fixed price contracts are not the most suitable way of rewarding technical and design consultants as their work includes a lot of uncertainty and the total work load can be difficult to predict on beforehand. The advocates of fixed price perceived the absence of financial incentives as positive and facilitating for the overall outcome of the project. One of the contractor's representatives described the fixed price contract and the inexistence of financial incentives as two of the key success factors for the project. He described using a fixed price contract as an excellent way of reducing one of the main sources of conflict in construction projects - pricing on construction works. With a fixed price, there are no reasons for the contractor to search for the cheapest possible solution, even if that solution is not the best of the project. This, however, assumes that the client has a project manager who is able to perform proper cost control. A representative from the client summarized the partnering relationship with "We could focus on getting the building built". However, it was also pointed out that due to closer interaction and more focus on the team as an entity, more governing is required in partnering projects compared to traditional projects. Furthermore, it was noted by several, especially by representatives from the contractor, that partnering cannot succeed if the client does not dare to implement the concept fully and does not believe that it could be a way to improve chances of a successful outcome.

Some interviewees commented on the possibility that there might be external key success factors influencing the outcome of the project. Examples that were mentioned include the economic recession that took place in Sweden during the time of the project and the fact that the project had a client from the public sector. However, some

mentioned the possibility that a public client may inhibit partnering agreements due to bureaucracy and the Public Procurement Act, and rather stressed the relatively long time available for planning to be the major success factor. In addition, the size of the project was mentioned as a contributor to implementing partnering successfully. As the budget on Brinkåsen was substantially larger compared to a lot of other projects, plenty of workshops and social activities to bring team participants close to each other were possible without having to spend a large percentage of the budget on it. Some of those who reflected on this mentioned a value between 20 and 50 million SEK as the lower limit where partnering could be implemented successfully. Below these numbers, introducing partnering would not be financially sustainable as a too great portion of the total budget would be spent on forming the team and the fictional organization. Thus, a design-bid-build or design-build contract without partnering would be preferred under such conditions. On the contrary, a few interviewees were of the opinion that partnering could be successfully implemented on every project, however small it is, as long as the partnering relationship is developed and adjusted to existing conditions.

# 4.2 Contributions of project management consultants in partnering

A recurring argument throughout the interviews for employing external project management consultants referred to the aforementioned views that partnering requires more governance due to the increased amount of interaction and overlapping of roles between the actors in the project. Moreover, other reasons mentioned for involving project management consultants in a partnering project were if a client lacks knowledge or expertise within partnering, construction, economy or law; client lack of time or ability to provide project managers from its own organization; the ability to use the consultants' contact network; and the respect a client may gain by letting an experienced actor represent him. In addition, a representative from the client pointed out that it is important for them not to have specialist competences in-house as employing consultants could be a way to get in contact with top of the line experts and broaden the contact network – something that may prove to be useful on future projects. It was also noted by the client that there are expectations that the project management consultant should assist in procuring a contractor that is suitable for a partnering relationship. Later in the project, this would also apply to procurement of sub-contractors.

Findings from the interviews indicate that the client expects project management consultants to bring a number of partnering-specific benefits to the project. As a project manager, creating a structure and organizing the way of working was often recognized as one of the main responsibilities. Additionally, it was recognized that the project management consultant is expected to provide the client with the knowledge and experience needed to procure the most suitable contractor to carry out the construction. Representatives from the client stressed the importance of the project management consultant assisting in ensuring an equal power balance between the client and contractor, especially as the contractor at many times has far more experience and knowledge about construction in general. The interviews also revealed that there can be expectations from the contractor pointed out that these expectations especially included seeing to that every partner works for the greater good of the project, including sub-contractors. An issue pointed out by several interviewees was that it at times throughout the project happened that a partner tried to influence more than entitled to. It was recognized that this could disturb the power balance and thereby the whole essence of the partnering agreement. In these situations, there were expectations that the project management consultant, as one of the more experienced in project-based work, should act as the one solving the situation in the way that would be the best for the project. For a summary of project management consultants' contributions specific to partnering, see Figure 5.

#### PARTNERING-SPECIFIC CONTRIBUTIONS OF PROJECT MANAGEMENT CONSULTANTS

Ensuring an equal power balance between client and contractor

**Governing** the increased amount of interaction and overlapping roles

Educating partners about partnering

Creating a partnering structure and organizing the way of working

Ensuring that partners work for the greater good of the project including conflict resolution

Assisting the client in procurement of most suitable contractor and sub-contractors for partnering

Figure 5 Summary of contributions project management consultants bring to partnering projects.

## 4.3 Issues of role interpretation in partnering

#### 4.3.1 Power balance

The majority of interviewees mentioned equality as the essence of partnering and that all partners should strive to achieve equality within the fictional partnering organization. For example, it was argued by a project management consultant that without equality in power between the contractor and the client (including the client's project management consultant), successful partnering is not possible. One interviewee even considered achieving this equality as the main responsibility of project management consultants in partnering projects. This derived from the belief that this power equality eases all other tasks on a project. A representative from the contractor stressed the importance of achieving a power balance between all partners, including every sub-contractor and supplier that is part of the partnering agreement. He repeatedly stressed the importance of democracy in partnering projects and stated that "all partners should have one vote each, even the smallest sub-contractor", and by this meaning that all partners should be equal in terms of influence and, to a large extent, decision making. Another interviewee from the contractor's side argued that equality, in fact, leads to a better utilization of everyone's knowledge and experience. Moreover, not specifically for the Brinkåsen project, but in general, as one of the arguments why equality is a cornerstone for successful partnering, the risk that other parties might try to take advantage of an inexperienced client was brought up. As

stated by several interviewees, it is under such circumstances a project management consultant representing the client becomes essential. From the client's side it was also agreed that every partner in the project should have their voice heard, but, however, at the same time it must be recognized that the client should have veto rights as he is the one initiating and financing the project. A different perspective on power balance was brought up by another representative from the client who stated that the balance should be shifting dependent on the current stage in which the project is in. It was argued that during the planning phase, the client should have more influence in decision-making, and in the construction phase, the contractor should be the one with most influence.

## 4.3.2 Overlapping roles

As one of the characteristics of partnering projects, overlapping roles and responsibilities was often mentioned in interviews. It was recognized that in traditional projects, overlapping roles may cause confusion and lead to misunderstandings and mistakes. In the Brinkåsen project, however, the overlap of roles was not seen as something negative by interviewees. On the contrary, it was perceived as a sign of close cooperation. The client confirmed that roles in the Brinkåsen project sometimes overlapped, and stated that "roles are vague when partnering works as it should". Representatives from the end user also indicated that there were situations when roles overlapped and responsibilities became partially unclear. At the same time they argued that it did not harm the project in any way and that the involved actors complemented each other in the fictional organization AB Brinkåsen. An interviewee from the contractor explained the overlap in roles as a symptom of people trying to help each other and work for the greater good of the project and the common objectives. Project management consultants also recognized roles being mixed up, and stated that it did not affect the Brinkåsen project in a harmful way. Nevertheless, it was mentioned that, in some partnering projects, responsibilities tend to become mixed, and that it is not unusual that clients misinterpret the role of a project management consultant. This misunderstanding from the client's side can lead to a belief that project management consultants are responsible for tasks that actually lie within the field of the contractor's or a subcontractor's responsibilities, for example supervision of construction works and calculations.

# 4.4 Risks and opportunities for project management consultants in partnering

During the interviews, concerns were expressed by project management consultants that a partnering arrangement in some cases may pose several risks for their business activity. Although the overlap of roles and responsibilities was not perceived as a threat for the Brinkåsen project by any of the involved parties, a representative from the consultants stated that it can become a problem on other projects. This was mainly associated with the misunderstandings that may arise when lines of responsibility are unclear, and that misunderstandings could turn out to be difficult to track and solve under such circumstances.

As an additional potential threat partnering poses for project management consultants, the risk of getting "squeezed out" from the cooperation when the contractor enters the project was mentioned. After the contractor is assigned, the close cooperation between

the contractor and the client may result in perceiving the contributions of project management consultants as less important or even unnecessary. On the other hand, several interviewees denied this by stating that, in the Brinkåsen project, project management consultants were equally significant during the whole project. However, when asked at what stage of the project the contributions were most noticeable, most of the interviewees stated that it was in the planning phase, before the contractor entered the project. One of the client's representative believed that after the contractor entered the project, the contributions of consultants became vague and more difficult to pinpoint, at the same time stressing that consultants' assistance was needed throughout the whole project.

The aforementioned problem of getting "squeezed out" from the cooperation may result in another potential threat for project management consultants. As stated by one of the interviewees from the consultant's side, in partnering projects (not specifically in the Brinkåsen project) it becomes more difficult for consultants to guarantee the client the outcome of the project due to the increased interference in decision-making by the contractor (and potentially sub-contractors). As an example, a project management consultant representative mentioned a situation where a certain subcontractor is suggested to the client, but the contractor disagrees and advocates for assigning another sub-contractor. In partnering there is a need to establish consensus, whereas in traditional projects decisions can be more one-sided, guaranteeing consultants the necessary influence to make certain decisions. In context of the Brinkåsen project, a contractor's representative stated that it usually pays off to select sub-contractors with whom they have experience working together with before, even though it might be a more expensive alternative. In general, consultant's representatives perceived this as a problematic issue in partnering projects and indicated that it makes guaranteeing the outcome of the project more difficult, as all parties have the right to influence and the decisions and overall outcome depend on all parties involved. For a summary of risks indicated during interviews, see Figure 6.

#### PARTNERING-SPECIFIC RISKS FOR PROJECT MANAGEMENT CONSULTANTS

Misunderstandings due to poorly defined responsibilities

**Getting squeezed out** from the cooperation when a close relationship is established between the client and the contractor

**Difficulties in guaranteeing project outcome** due to increased interference of other parties

Figure 6 Summary of risks project management consultants may face when engaging in partnering projects.

Project management consultants recognized that partnering also can bring certain opportunities. As the partnering concept is relatively new in Sweden and some of the parties involved in construction projects are not familiar with it, it opens doors for educating the actors involved, thereby creating opportunities for offering the client additional services. Another opportunity recognized by project management consultants is the new tasks associated with the partnering leader role. The emergence of this new role in construction projects creates an additional opportunity to provide and market a new type of service. However, it was recognized by one of the interviewees that this role usually lasts for two to three weeks in total on large projects and that the partnering leader role barely exists at all on small-scale projects. Therefore, the gains from taking on the role of the partnering leader are not significant in comparison to the whole budget of the project.

# 5 Discussion

It has been argued that the construction industry is conservative in its nature, meaning that development processes are slow. However, it is also an industry characterized by continuous change. New concepts and ways of working are sought after and introduced at times. In the last few decades partnering arises as one of the most recurring topics in the minds of academics and practitioners. Introducing the partnering concept significantly affects the actors involved in construction projects and their ways of working. It might be necessary to reassess the responsibilities and contributions of the different parties in a construction project. It has been recognized that partnering brings several benefits and new opportunities, but there are also several risks that come with it. Project management consultancies are one of the actors that might face several threats the partnering concept poses, therefore, the potential risks need to be assessed accordingly as well.

The study reveals that there are certain success factors that need to be in place in order for partnering to succeed. As highlighted in both literature and interviews, human factors and social dimensions are important in a tight cooperation. Interactions, and clashes between different personalities, to some extent, determine the success of the whole project. Assigning right persons in the right positions was stressed by all the interviewees as the key to success in partnering projects. Involvement, dedication and equality between the partners involved are also recognized as vital in partnering arrangements. As pointed out by several interviewees, many of the success factors for partnering influence and should be taken into consideration on every project, but due to the often adversarial nature of traditional projects it does not happen.

One of the prerequisites for successful partnering is competent project management. The role of project management consultants and their contributions in partnering projects slightly differ from their role in traditional projects. Project management tasks on any project, whether it is a partnering project or not, include documenting, controlling, setting procedures in place and other activities aimed at ensuring that the project goals are met within the given restrictions and technical specifications. Moreover, it was found out during the interviews that it is perceived to be the role of the project management consultant to also handle conflicts between the parties. It could be argued that this responsibility could be even more important in traditional projects due to adversarial attitudes, but it does indeed not lose its significance in partnering arrangements. Furthermore, employing an external project management consultant might result in benefits for the client in terms of respect from other parties due to the consultant's proved knowledge and experience. As a consequence, this might diminish opportunistic behaviour from the contractor's side. There are also several contributions of project management consultants that are less visible and often get overlooked by clients. It can be said that consultants provide the client with security about decisions made on the project and degree of professionalism due to their knowledge and experience in the construction industry. Project management consultants often manage and avoid risks that could occur on the project, but inexperienced clients often lack knowledge about construction and, therefore, might not be fully aware of this contribution. It is apparent that marketing something that the buyer is not aware of can be a rather difficult task. Explaining the possible risks and how they could affect the project might be beneficial for project management consultants, as this would make their contributions more visible.

As mentioned before, most of these tasks are not strictly partnering-specific, but there are several differences associated with partnering that need to be considered. One of the issues that are more partnering-specific is the overlapping roles of the actors involved in the project. The interview findings supported the view expressed in literature that one of the key contributions of project management consultants in partnering is making the roles and responsibilities clear to everyone involved. Even though initial contracts can be used in order to clarify the roles and responsibilities of the actors, the interview findings as well as the literature study revealed that in partnering projects, there is less emphasis on contractual agreements and often the formalities are overlooked for the sake of a better outcome of the project. The risk of overlapping roles is more evident in partnering arrangements than in traditional projects, which can be explained by the willingness to assist other partners when working in close cooperation and to contribute to the project as a whole. However, the overlap of roles and responsibilities is not necessarily always damaging for a project. An argument in favour of making roles overlap could be that it makes the project team less vulnerable to changes in staff. As several actors often possess similar knowledge about the project and share certain responsibilities, the knowledge is spread out across the whole project team, thereby making certain roles of actors, to some extent, more interchangeable. However, in some cases, the mixed responsibilities and the increased vagueness of roles can be dangerous as it might lead to responsibility confusion among the parties.

Moreover, it was a common view among interviewees that in partnering it is important that the client and the contractor are equally powerful and have the same influence in decision-making on the project. It can be said that construction clients often do not fully recognize the importance of equal power balance, and therefore do not appreciate one of the most significant contributions of project management consultants – providing the client with the necessary expertise and knowledge in order to ensure the equality between the client and the contractor. If there is no equality and one of the partners is less powerful than the other, it might encourage opportunistic behaviour and lead to the same adversarial attitudes that can be observed in many traditional projects. The equal power balance can be described as a type of warranty against adversarial relationships in construction projects.

On the whole, it can be observed that the contributions of project management consultants can be divided into two categories. The first group of contributions is procedure related – improving ways of working, structuring work, etc. This is not necessarily unique for partnering projects, but there are several additional responsibilities and differences in partnering projects. In partnering projects, project management consultants are responsible for assuring that the involved parties fully understand the concept of partnering and what it requires from each party. Project managers also need to ensure that each party fulfils their obligations, cooperates in order to create close relationships, and builds trust to maintain a win-win situation. The second group of client's project management consultant's contributions aims at ensuring an even power balance between contractor and client is achieved and maintained. These contributions are more specific to partnering than the first group. It includes providing the client with technical expertise, knowledge and experience. As found out during the interviews, an equal power balance is the essence of partnering and therefore is vital to maintain throughout a project.

However, to some extent, it seems that a conflict of interests exists between the two aforementioned groups of client's project management consultant's contributions.

From one point of view, the project management consultant's task is to ensure the close cooperation and build trust between the contractor and the client, because this is the cornerstone of successful partnering. On the other hand, creating a close relationship and deep trust between the client and the contractor might threaten the position of project management consultants themselves. If there is a deep understanding and close relationship between two actors, the need for the third party acting as a mediator is reduced. Project management consultants might be perceived as unnecessary, as a "third wheel", and get squeezed out of the cooperation. This problem can be illustrated if the partnering relationship is viewed as an element consisting of two pieces - a client and a contractor, see Figure 7. In this situation project management consultants are acting as glue which ensures close cooperation and understanding between the two actors. Project management consultants provide the client with the necessary expertise to be equally powerful to the contractor, but when this close cooperation is ensured and the elements are put together, the glue between the two elements gets squeezed out. However, it can be observed that the exclusion of consultants reduces the influence and power of the client. Therefore, it is vital for project management consultants to highlight their contributions to the project and make clients understand these contributions. By providing the client with the necessary knowledge, experience and expertise, project management consultants make the client equally powerful to the contractor, and without this equality, it is likely that successful partnering would not be possible.



Figure 7 Illustration of project management consultants' changing position.

However, the need for an equal power balance between the client and the contractor can be an interesting topic for discussion. Although literature as well as most interviewees stressed the importance of equality in partnering, several benefits can be recognized in one partner taking the leading role and having more influence in a certain stage of a project. For example, if a contractor has more influence in the construction phase, the whole project could benefit from better utilization of his knowledge and expertise. However, there is a thin line between using this influence to bring benefits for the project and using it for maximizing personal gains by taking advantage of other parties. Making sure that this line is not crossed can be viewed as an additional responsibility of project management consultants. It is apparent that contractors often prefer not to be managed, but to manage themselves, therefore gaining more control over the economy of the project. In order to ensure that adversarial attitudes are avoided, clients should be aware that a partnering agreement does not automatically exclude opportunistic behaviour, and that contractors might have an agenda that takes advantage of client's lack of experience to maximize personal gains. The unwillingness of contractors to be controlled is a powerful business driver that can turn out to be costly for the client and the whole project if not enough attention is paid to it.

If the partnering concept continues to gain more attention and becomes even more common in the construction industry, there are several challenges for all actors, including project management consultancies. Moreover, discussions during interviews confirmed that financial aspects do not lose their significance in partnering projects. Even if partners are willing to ensure their decisions are most beneficial for the project as a whole, at the end of the day, it still is a business model that is used in order to make profit. Although the Brinkåsen project at completion did not experience any major financial problems, an interviewee noted that financial issues potentially can threaten a partnering arrangement and be a potential risk for partners. Moreover, the interview findings highlighted the risk of reduced ability to guarantee the project outcome to the client. The need for consensus and increased interference of other actors in decision making might make ensuring the planned project outcome more difficult. Of course, it can be argued that one-sided decisions and one party dominating decision-making in a project might not be the most beneficial way of working for the project as a whole, but, to certain extent, project management consultants' are expected to provide the client with security about how the project will turn out. For inexperienced clients, the inability to ensure the predicted outcome of a project might result in a perception that project management consultants do not provide high quality services.

However, partnering also creates new opportunities for project management consultancies. As assigning the right persons on partnering projects is essential, experienced project management consultants might help with staff screening tasks based on the consultants' previous experience and knowledge about partnering they possess. As noted during interviews, partnering also creates a new role that project management consultancies might undertake - the emergence of the partnering leader role opens doors for new types of services to market. However, this role might not bring remarkable benefits due to the short period of time it is apparent in projects. In addition, in projects where a client experiences successful partnering, an opportunity emerges for a project management consultant to build a long-term relationship with that client. This opportunity is not absent in traditional projects, but it could be argued to be even easier to build such a relationship and make multi-contract agreements after a successful partnering project, as these types of projects often involve parties working close together for a relatively long time period. Building a strong team that works well together on an almost daily basis could create a sense of unwillingness to let go of the project and the project team, and at this point the opportunity for creating multi-project agreements arises.

# 6 Conclusion

It is believed that the partnering concept in the future will become even more widespread in the construction industry. Therefore, the need for change in practices of actors in the industry becomes more and more apparent. This study reveals that the external project management consultants representing the client are not exempted from being affected by the shift in practices partnering in construction projects brings. Thus, there is a need to adapt to the new environment and promote their contributions in context of the new ways of working. The findings revealed that the contributions of clients' project management consultants in partnering projects slightly differ from their contributions in traditional projects. As one of the most significant contributions that differ, ensuring an equal power balance between the client and the contractor should be noted. It can be argued that without equality, successful partnering most likely is not possible due to the fact that imbalance in power and influence might result in adapting the same opportunistic behaviours and adversarial attitudes that characterize many traditional projects. However, if clients are not fully aware of and do not appreciate this contribution, the role of project management consultants could be diminished.

To some extent, project management consultancies face a conflict of interests in partnering projects. From one perspective, their responsibility is to ensure close cooperation and a trusting relationship between the client and the contractor, but on the other hand, by doing so, they might threaten their own position. In conditions of tight relationship and deep understanding between a client and a contractor, the need for external project management consultants acting as a mediator and middleman is reduced, and therefore, they might get squeezed out of the cooperation. To avoid this, it is vital for project management consultants to highlight their contributions, with emphasis on ensuring the equal power balance by providing the client with the necessary knowledge and expertise. In addition, there are financial risks for project management consultancies inherited in partnering, as well as increased complexity and difficulties in guaranteeing project outcome for the client. These stem from the increased influence of other actors and the need for establishing consensus in decision-making, which at many occasions lead to project management consultants having less influence.

On the other hand, partnering might bring certain benefits for project management consultancies. There could be a need for educating the parties involved in partnering, which might lead to an increased demand of an external and partnering-experienced actor being involved in a project. In addition, due to the partnering concept being more and more accepted as an alternative way of working, a new role has emerged – the one of the partnering leader. Consultants may overtake this role and broaden their service portfolio. However, in order to avoid the potential risks and take advantage of the benefits partnering can bring, project management consultancies might need to re-evaluate their role and adapt their ways of working in construction projects.

The amount of research on how partnering affects project management consultants is still modest and the field is relatively unexplored. Future research should focus on how project management consultancies could adapt their business model in order to avoid the pitfalls of engaging in partnering projects and instead benefit from it. As the contributions of project management consultants in partnering slightly differ from the ones in traditional projects, this could include new types of services and a reassessment of the competences they market. An additional issue to be explored in more depth is the power balance between the different actors in partnering projects. This should include not only the client and the contractor, but also subcontractors, end users and other stakeholders who influence the project. Exploring the possible power balance shifts in different phases of a partnering project could provide the involved parties with useful insights and assist in better understanding of the partnering relationship.

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# Appendix

#### **Structure of interviews**

The questions below were used as a guideline for structuring interviews. According to who was interviewed, some questions were modified or deleted.

#### Background/general information

- 1) Please tell us briefly about your background.
- 2) What experience do you/your organization have from previous work on similar projects, with and without partnering agreement?
- 3) What was your role in the Brinkåsen project?
- 4) Were you involved throughout the whole project?
- 5) What were the major differences on this project compared to the previous projects you have been involved in?
- 6) Have you been involved in projects where an external project management consultant was not employed? What are the most significant differences?

#### Partnering in general

- 7) Please describe what you consider to be the main characteristics of a partnering agreement.
- 8) What are the key factors for partnering to be successful?
- 9) In partnering projects, should the client and the contractor have equal power and influence? Why?
- 10) What reasons are there for client's to hire external project management consultants?
- 11) Are there any specific personal characteristics staff in partnering projects should possess?
- 12) What are the main competences a client with less construction project experience needs to have in order to make sure other parties do not take advantage of him?
- 13) Are there any threats a partnering arrangement poses to a project?
- 14) In general, do you perceive partnering as a successful concept? Why/why not?

#### Specific to the Brinkåsen project

- 15) Please describe the roles and responsibilities of those involved in the design and planning phase.Were roles and responsibilities affected by the partnering approach?
- 16) How did the client's role in the project differ from the client's project management consultant's role?
- 17) What were the main contributions of the project management consultants?
- 18) At what stage in the project were the contributions of the project management consultant most visible?
- 19) Please describe the role of the partnering leader.
- 20) Why was a representative from the contractor chosen to be partnering leader?
- 21) After the contractor got involved in the project, did the client's roles and responsibilities shift?In your opinion, how would this have differed if it would not have been a partnering project?
- 22) Because of the partnering arrangement, were roles overlapping or mixed up?
- 23) Did you experience equality between the project actors in the project?
- 24) Did any party try to exercise their power in order to become more influential?
- 25) Did any unexpected problems occur during the project? How was the problem solved? Would the problem have been solved in a different way if it would not have been a partnering project? Please explain.
- 26) What were your organizations goals with the project?
- 27) What were the joint project goals?How are/were these monitored and measured?
- 28) Do you feel that your organization's goals fit with the joint goals?
- 29) Do you feel that there were understanding between partners of each other's goals and organizational culture? How did this influence the partnering process?
- 30) Were there any social activities to build up a team-spirit?
- 31) In hindsight, what could have been done differently (at any stage of the project) to improve the outcome of the project?