

No relationship is an island: long-term partnering and resource adaptation across project networks

Malena I. Havenvid

*Department of Real Estate and Construction Management,
KTH Royal Institute of Technology, Stockholm, Sweden*

Åse Linné

*Department of Civil and Industrial Engineering, Uppsala University,
Uppsala, Sweden*

Viktoria Sundquist

*Department of Architecture and Civil Engineering,
Chalmers University of Technology, Gothenburg, Sweden, and*

Sofia Wagrell

*Department of Civil and Industrial Engineering, Uppsala University,
Uppsala, Sweden*

Abstract

Purpose – This study applies an interactive resource perspective to explain how collaborative project relationships may evolve into network-level structures by enabling resource adaptation and long-term development across projects.

Design/methodology/approach – The paper presents an emergent longitudinal case study covering a long-term business relationship and its development across five interrelated construction projects, during which partnering is initiated, continued and developed. The main data set consists of 57 in-depth interviews with 37 respondents in managerial roles from key project actors, as well as site visits and project documentation. The paper applies an interactive resource perspective (resource interaction approach) in tracing resource constellations across a network of project actors.

Findings – The findings demonstrate how partnering can evolve from a project-centric mechanism to a relational infrastructure supporting sustained learning and long-term collaboration across temporal and organizational boundaries. Moreover, the findings contribute to a more nuanced understanding of partnering relationships as inter-organizational resources in themselves and also highlight the critical role of economic incentives - here termed “economies of adaptation”-in enabling long-term resource development in the construction context.

Originality/value – The paper applies an interactive resource perspective to conceptualize partnering as an inter-organizational resource used to both induce and govern project networks. Rather than viewing resources, and thus partnering relationships, as static assets to be optimized within single projects, this perspective emphasizes their dynamic and relational nature, developing through interaction across project networks over time.

Keywords Partnering, Construction projects, Inter-organizational project networks, Project-based organizations, Resource interaction approach, Resource adaptation

Paper type Research article

Introduction

In construction, partnering has been promoted as a way to tackle persistent challenges related to quality, productivity, and innovation (Egan, 1998; Alderman and Ivory, 2007; Byggballe and



Swärd, 2019). These challenges are often linked to the industry's structural fragmentation and short-term, adversarial relationships, which partnering aims to overcome by facilitating closer, longer-term collaboration between actors (Bresnen *et al.*, 2025). However, both practice and scholarly inquiry into partnering have primarily concentrated on formal arrangements within single projects – typically focusing on the dyadic relationship between client and contractor, and on immediate project outcomes (Bresnen and Marshall, 2002; Bygballe *et al.*, 2010; Jacobsson and Roth, 2014; Crespín-Mazet *et al.*, 2015). As a result, less is known about how partnering unfolds within broader organizational and temporal contexts, including how it supports continuity, learning, and development across multiple projects and actor constellations (Bygballe and Swärd, 2019; Rosander and Kadefors, 2023; Kadefors *et al.*, 2024; Rosander *et al.*, 2025). Although partnering has often been promoted as a way to improve project performance, its potential to support broader and more enduring patterns of collaboration remains insufficiently explored. As Bresnen *et al.* (2025) argue, there is a pressing need to move beyond narrow, project-specific perspectives and instead examine how partnering arrangements unfold over time and across organizational settings. In the present paper, this is interpreted as including understanding how partnering may enable a more purposeful and sustained use of both tangible and intangible resources – not merely for short-term efficiency, but for the longer-term development of capabilities, relationships, and shared practices across projects.

Important exceptions have expanded the understanding of partnering by examining how collaborative delivery models are shaped by institutional and organizational settings (Rosander and Kadefors, 2023) or institutionalized through social embeddedness (Bygballe and Swärd, 2019). In parallel, research on project capabilities has highlighted the interplay between strategic and operational levels in shaping collaboration and performance (Winch and Leiringer, 2016; Hietajärvi *et al.*, 2017; Zerjav *et al.*, 2018). Yet, while this body of work emphasizes relational dynamics and organizational change, less attention has been paid to the underlying mechanisms through which such approaches may contribute to long-term development across project settings – particularly how recurring arrangements and interdependencies are shaped and sustained over time. In turn, this requires a more fine-grained analysis of which key resources actors themselves perceive as valuable to develop, combine, and adapt in order to promote learning and improved project outcomes. Such an approach allows for a reconceptualization of partnering – not merely as a governance tool or relational model, but as a potential mechanism for long-term resource development within project-based settings.

Against this background, the industrial network approach (INA), also known as the Industrial Marketing and Purchasing (IMP) perspective, offers valuable conceptual tools for analyzing how partnering arrangements intersect with resource use and development. From this perspective, resources are not static or stand-alone, but evolve in interaction with other resources across organizational boundaries (Håkansson and Waluszewski, 2002; Gadde *et al.*, 2003). A construction project can therefore be seen as a “temporary resource constellation” (Havenvid *et al.*, 2016b) in which firms combine and adapt resources in ways that may influence outcomes far beyond the individual project, both intentionally and unintentionally. Research applying this perspective to the construction context has shown that even under conditions of temporal and organizational boundedness, actors may attempt to bridge projects by reusing solutions and maintaining continuity (Gadde and Dubois, 2010; Dubois and Gadde, 2002b; Havenvid *et al.*, 2017; Sundqvist *et al.*, 2018). Studies by Havenvid *et al.* (2016a) and Crespín-Mazet *et al.* (2015) demonstrate that partnering can support resource coordination and adaptation through long-term relationships, even if this potential remains underutilized in practice. Although these contributions have incorporated a resource lens, they have typically done so as part of a broader interest in collaboration, innovation, and relational governance. In contrast, this study places more explicit analytical focus on resource development itself, examining how partnering arrangements contribute to the mobilization, re-use, and adaption of resources across multiple projects and over time. By applying an interactive resource perspective (Håkansson and Waluszewski, 2002; Prenkert *et al.*, 2019), this study seeks to uncover the mechanisms through which partnering may support more systematic and long-

term capability building within and between organizations, with implications on project, organizational and industry levels.

The aim of the study is to deepen the understanding of how an interactive resource perspective can shed new light on the dynamics through which partnering enables continuity and long-term development within and across project networks. By conceptualizing partnering not just as a contractual or relational arrangement but as a mechanism for resource adaptation and development, this study explores how partnering both shapes and is shaped by the long-term use, combination, and development of resources in the construction context. Specifically, the following research question guides the study:

How does partnering both contribute to and evolve with resource development across multiple projects?

Throughout the paper, the term “partnering” refers to project partnering, i.e. partnering on individual projects, while long-term partnering arrangements formally involving several projects is addressed as “strategic partnering”. The paper presents an emergent longitudinal case study covering a long-term business relationship and its development across five interrelated construction projects, a multi-project study, during which partnering is initiated, continued and developed. The study includes the directly involved actors and resources in the interrelated projects, in terms of the focal business relationship evolving into partnering and related business relationships with several re-occurring as well as new project actors and resources. The remainder of the paper is structured as follows. The theoretical section following this introduction present relevant current literature on partnering in construction, the organizational specificities of project-based organizations (PBOs), along with the theoretical basis for the investigation – an interactive resource perspective based on the INA (i.e. the IMP perspective) (Håkansson *et al.*, 2009). The method and emergent longitudinal approach to the case study is outlined, followed by the results presented as two detailed illustrations of how key resources are systematically interrelated across projects through an evolving partnering relationship. Finally, the findings are discussed, and conclusions are drawn regarding the implications of an interactive resource perspective on partnering in construction.

Theoretical background

Partnering in construction

Over the past three decades, partnering has become a recognized form of collaboration in the construction industry. Initially introduced to facilitate closer and more long-term relationships in a fragmented sector (Bresnen and Marshall, 2000; Crespín-Mazet and Ghauri, 2007; Hong *et al.*, 2012), partnering was expected to mitigate adversarial relationships by promoting risk-sharing, trust, and joint problem-solving. However, despite its widespread adoption, questions remain regarding whether partnering has delivered on these promises and to what extent it can drive long-term collaboration and mutual orientation in an industry characterized by short-term engagements and competitive dynamics. Instead of enhancing continued collaboration across projects, partnering frequently remains confined to single-project agreements, limiting its potential to transform how the industry operates (Bresnen *et al.*, 2025).

Bresnen *et al.* (2025) highlight that addressing this limitation requires acknowledging the fundamental characteristics of the construction industry, where temporary coalitions, cost pressures, and fragmented responsibilities often hinder the development of sustained inter-organizational relationships. In a study of the development of collaborative contracting in the Nordic countries, Kadefors *et al.* (2024) point to the need for learning about collaborative practices on an industry level, which is currently lacking. This raises the question of whether partnering can truly function as a long-term collaborative mechanism without structural changes in how projects are procured, governed, and executed, and how learning on an industry level can be facilitated. In addition, rather than focusing on formalized partnering

agreements, recent research suggests a need to investigate the dynamics of partnering as an emergent and interactive process, shaped by relationships, context, and learning over time (Bygballe and Svård, 2019; Rosander and Kadefors, 2023; Rosander *et al.*, 2025). As such, there is a call for research that addresses both the formal and informal aspects of partnering, and the interplay between them over time and organizational space.

One way to address these challenges is to adopt an interactive resource perspective, which allows for a more integrated understanding of both the formal and informal dimensions of partnering. Rather than focusing solely on contractual frameworks or governance models, this perspective draws attention to how resources – both tangible and intangible – are developed, combined, and adapted through interaction over time. It highlights not only the structural and procedural elements of partnering but also the emergent, relational, and contextual dynamics that shape its implementation in practice. From this view, partnering is not simply a predefined agreement, but an evolving mechanism through which organizations engage in mutual adjustment and co-development of resources across projects (Crespin-Mazet *et al.*, 2015).

However, the dominant focus on partnering within single projects has led to an implicit assumption that resources are fixed assets to be managed within a specific contractual framework, rather than evolving entities shaped by long-term inter-organizational engagement. This perspective limits the ability to understand how partnering might contribute to resource development and value creation beyond the immediate project setting. The construction industry's prevailing short-term focus fortifies this issue. Given the competitive pressures and cost-driven procurement models, partnering arrangements tend to prioritize efficiency gains and immediate project outcomes rather than long-term resource development (Bygballe *et al.*, 2010). This means that while partnering, at best, may facilitate knowledge exchange and coordination within a project, the mechanisms by which resources are cultivated and developed across projects remain poorly understood. In a wider interpretation of Bresnen *et al.* (2025), it can be argued that without recognizing how resources evolve through iterative interactions, the understanding and practice of partnering will remain as a temporary coordination mechanism rather than a driver of broader industry change.

Furthermore, much of the existing research on partnering has centered on the client-contractor dyad, often neglecting the broader network of actors involved in construction projects (Crespin-Mazet *et al.*, 2015; Eriksson, 2015; Sundquist *et al.*, 2018). While some studies indicate that repeated interactions between clients and contractors can support the development of mutual knowledge and joint decision-making (Eriksson and Nilsson, 2008; Crespin-Mazet *et al.*, 2015), there is less emphasis on how partnering relationships extend beyond this core relationship to include suppliers, consultants, and subcontractors. This narrow focus limits the understanding of how resources are adapted and combined across a wider network, affecting the ability of firms and organizations to build cumulative resource advantages over time.

Another challenge identified in both literature and practice is the difficulty of institutionalizing partnering as a long-term practice. While strategic partnering—where formal collaboration extends across multiple projects—has been proposed as a way to overcome the limitations of partnering (Sundquist *et al.*, 2018), such arrangements remain relatively rare. Even when efforts are made to sustain collaboration beyond a single project, they often rely on individual relationships and informal mechanisms rather than structured processes for long-term resource development (Bresnen *et al.*, 2025). This raises concerns about the scalability and durability of partnering as a model for collaboration, and ultimately innovation and enhanced performance, in the construction industry.

Moving forward, partnering needs to be explored not just as a formalized contractual arrangement or contained to single projects but as an evolving resource part of a broader network of actors and resources. This requires shifting the focus from formal agreements and short-term project benefits to how partnering facilitates (or limits) resource development through the combination and re-combination of resources across projects. Thus, to better understand partnering as a driver of long-term change in the construction industry, research need to examine the interactive processes that shape resource development over time and across projects in this context.

Resource development in PBOs

The literature on PBOs has shown that while organizing in projects is a way of temporarily assembling actors and resources in an inter-organizational setting to solve a particular task (Lundin and Söderholm, 1995), projects are inherently contingent upon historical, parallel, and future events and the participants, organizations, and technologies involved in them (Engwall, 2003; Hartmann and Dorée, 2015). Furthermore, projects exist within and are shaped by a broader institutional context (Ekstedt *et al.*, 1999; Grabher, 2004). As in any form of organization, boundaries in projects can range from tangible structures to social and cognitive processes (Hernes, 2004). Thus, while projects are bounded as temporary organizations, they are also deeply connected through interdependencies that span temporal, organizational, technological, and institutional dimensions.

This dual organizational condition – bounded and connected – creates specific conditions for actors operating in PBOs to develop and combine material and immaterial resources over time. More specifically, such actors must navigate two organizational levels that are both bounded and connected in relation to each other: the temporary context of the project and the permanent context of the firm or parent organization (Gann and Salter, 2000; Shibeika and Harty, 2015; Havenvid *et al.*, 2019). Regardless of sector, this dual structure has been shown to create challenges in transferring learning across the two levels (Scarborough *et al.*, 2004; Bakker, 2010; Prado and Sapsed, 2016; Saukko *et al.*, 2020; Ahlström, 2024).

In construction, it has been argued to result in a specific “logic of innovation” that prioritizes exploiting established resource combinations, while constantly exploring new ones in individual projects that are rarely scaled up (Bygballé and Ingemansson, 2014). In addition, the adversarial type of relationships commonly practiced and the competitive type of bidding procedures for each construction project deepen the divide between the temporary and the permanent forms of organization and create further barriers for resource development over time (Bygballé *et al.*, 2010). As a result, Dubois and Gadde (2002a) characterized the construction industry as a “loosely coupled system,” where interaction within temporary project networks is intense, but long-term interaction within the permanent organizational network remains weak. This fragmentation limits the ability of firms to achieve sustained inter-organizational resource adaptations – i.e. adapting their resources in relation to one another for economic efficiency and productive outcomes, which can be considered a core objective of project partnering. Gadde and Dubois (2010) later described construction relationships as typically “low involvement,” characterized by limited mutual orientation and weak resource adaptation mechanisms. They noted that the temporary and competitive nature of projects make it difficult to establish the joint interest and long-term commitment needed for sustained resource development.

How resources are developed and combined over time is central to the understanding of industrial dynamics. From an interactive network perspective, i.e. the INA, or the IMP perspective (Håkansson *et al.*, 2009), firms are seen as embedded in networks of interdependent relationships through which they access, adapt, and develop resources (Håkansson and Snehota, 1995; Gadde *et al.*, 2003). The resource interaction approach (RIA) builds on this view by emphasizing that resources are not static assets, but gain value through combinations with other resources in specific contexts (Penrose, 1959; Håkansson and Waluszewski, 2002). These resources may be *physical* (e.g. equipment, products, systems) or *organizational* (e.g. competencies, routines, relationships), where the latter – especially inter-organizational relationships – play a key role in enabling adaptation over time (Jahre *et al.*, 2006; Gadde and Håkansson, 2008). Accordingly, the economic value of a resource depends not on its intrinsic qualities, but on how it is used in interaction with other resources (Håkansson and Waluszewski, 2004).

Through the use of RIA, numerous empirical studies of resource adaptation have shown that this is an ongoing process where firms continuously modify, eliminate, and/or re-combine resources based on changing conditions in order to maintain or achieve effectiveness and efficiency in operations (Prenekert *et al.*, 2019). Another important contribution of RIA is its recognition that resource development through interaction has both direct and indirect effects. Since resource development happens through interaction, its impact stretches beyond individual

firms and projects, affecting broader resource constellations. Direct effects can be understood as immediate implications for resource efficiency or functionality, and indirect effects as longer-term changes that influence a broader network of resources (Håkansson and Waluszewski, 2004).

This perspective underscores that resource-related decisions in one project can have ripple effects that shape future resource constellations across multiple projects and organizations. The RIA suggests that resources are embedded in networks where their development is influenced by past interactions as well as expectations of future use (Prenkert *et al.*, 2019). Earlier studies of partnering in construction projects suggest that resource combinations made in a single project are not isolated events; instead, they can reflect and contribute to ongoing patterns of adaptation across projects (Crespin-Mazet *et al.*, 2015; Havenvid *et al.*, 2016b, 2017). However, despite such examples, the broader tendency in construction projects remains one of mobilizing and adapting resources primarily for short-term efficiency within individual projects – making sustained resource development across projects both difficult and uncommon (Havenvid *et al.*, 2016a).

Viewing partnering as a resource means considering how it facilitates resource adaptation across multiple projects, influencing both immediate project outcomes and long-term developments. Applying RIA to the study of partnering enables tracing and understanding how key resources interact across projects and how these interactions contribute to long-term value creation. This perspective shifts the focus from isolated resource adaptations in temporary projects to the broader networked processes that shape resource development in the construction context *across* projects. In doing so, it provides a more dynamic understanding of how actors in the construction industry, and in other project-based industries, can engage in strategic resource development despite the temporary and fragmented nature of their operations. Next, the emergent longitudinal approach of tracing such long-term resource development is outlined.

Method

Introducing the case – five interrelated construction projects

The aim of this study is to explore how an interactive resource perspective can enhance understanding of how partnering enables continuity and long-term development across project networks. The guiding research question is how partnering both contributes to and evolves through resource development across multiple projects. To achieve this aim, we draw on a revelatory case study (Yin, 1994) encompassing five consecutive construction projects during which partnering is initiated and sustained. The case study approach is particularly effective for examining complex phenomena and the interactions among various actors (Dubois and Gadde, 2002b; Halinen and Törnroos, 2005; Dubois and Araujo, 2007; Easton, 2010), and is well-suited for uncovering change over time (Halinen *et al.*, 2013; Langley *et al.*, 2013). The projects are linked through an established relationship between a public property owner (i.e. client), AcaH, and a major construction company (i.e. main contractor), BuCon. Although their business relationship dates back over 30 years, the case study focuses on five projects (P1 to P5) carried out over a 15-year period, from 2007 to 2022, during which a first partnering project was initiated and subsequent partnering projects followed. Table 1 below outlines key characteristics of these projects, including contract type, time period, function, size, and cost.

The study was, however, initially focused on identifying and investigating innovation in construction projects in the Swedish construction sector. With the help of the contractor, BuCon, the authors were directed to a particularly innovative project, P3 (see Table 1), which involved the construction of a unique health care facility containing cutting-edge radiation technology for cancer therapy. One of the identified innovations in the project was the way the client and contractor developed their relationship into a partnering arrangement, driven by the complexity and uncertainty of constructing this kind of facility. Joint responsibility for the economic outcomes, joint procurement, collaborative design, early contractor involvement and use of building information modelling (BIM) ensured the delivery of P3 on time and

Table 1. An overview of the five consecutive projects

	P1	P2	P3	P4	P5
Time	2007–2009	2009–2011	2011–2015	2015–2017	2018–2022
Type of contract and collaboration model	Construction contract: Design-Bid-Build (DBB)	Construction contract: DBB	Construction contract: DBB, with partnering	Construction contract: DBB, with partnering	Construction contract: DBB, with partnering
Purpose of building	Higher education	Higher education	Healthcare treatment	Higher education	Higher education
Size	25,000 sqM	22,500 sqM	14,000 sqM	23,000 sqM	29,000 sqM
Cost	180 Million Swedish kronor (SEK)	60 Million SEK	500 Million SEK	500 Million SEK	900 Million SEK

Source(s): Authors' own work

within budget. Early in the investigation of P3, the authors became aware of that P3 was interconnected to two prior projects, P1 and P2, particularly in terms of why and how the first partnering project, P3, was initiated and carried out. This led the authors to retrospectively gather data related to P1 and P2 to gain a deeper understanding of the relationship between the client and the contractor and how it influenced the development of new solutions in P3.

In both P1 and P2, a traditional Design-Bid-Build (DBB) contract guided the responsibility of the client to manage the design, while the contractor was responsible for production. Despite the contractual separation of design and production, the client encouraged the contractor to propose changes, leading to new material uses, revised scheduling, and enhanced installation processes. The same key subcontractors and suppliers were used across both projects (P1 and P2) to enhance learning and efficiency. Later during the investigation of P3, yet another partnering project, P4, was initiated between the two parties. In P4 the learnings from engaging in partnering in P3 was used to involve several of the same actors as in the prior projects, such as the pre-fab supplier and some of the subcontractors. Furthermore, during P4, the project managers of both parties were engaged in planning for yet another partnering project, P5, where a similar project organization as in P3 and P4 was planned for. As with the study of P3 and P4, the research focus was placed on investigating how new solutions were implemented and/or further developed in the project as an effect of the sustained relationship. In P5, partnering was re-used and developed, and new cost-efficient solutions were developed and tested, and once again the same pre-fab supplier as in the previous projects was used. Consequently, the study came to capture five projects through which a relationship between the client and main contractor evolved along with the development of several joint activities and resources, including the (re-)activation and development of other relationships across the projects.

As such, the case study evolved into a longitudinal inquiry as the empirical material was gradually extended over time, following the development of the client–contractor relationship and related relationships across a series of interconnected projects. As the study progressed, important traces of resource adaptations were also uncovered retrospectively, necessitating a broader temporal scope. This reflects an abductive, emergent, and iterative research process (Dubois and Gadde, 2002b), in which empirical insights and theoretical framing were continuously refined in relation to one another. The study was informed by the IMP perspective and, more specifically, the RIA (Håkansson and Waluszewski, 2002; Håkansson *et al.*, 2009), which guided the analysis toward uncovering how resource interactions unfolded among the participating organizations. Through the lens of RIA, the projects were viewed as embedded in networks of resource constellations that were both maintained and transformed over time and across organizational boundaries through a long-term relationship spanning 15 years (cf. Havenvid *et al.*, 2016a). As Abrahamsen *et al.* (2017) note, studying change in

business relationships poses methodological challenges -particularly regarding how to define the boundaries of the study and determine relevant data collection points. In this case, the first partnering project (P3) served as an empirical anchor from which the authors iteratively explored earlier and later projects, with a focus on tracing patterns of resource adaptation and the emergence of resource constellations associated with the partnering arrangement. Ultimately, this abductive approach enabled not only the empirical mapping of resource adaptations, but also the theoretical advancement of conceptualizing partnering as a resource in its own right – one that co-evolves with other resources over time and actively shapes, as well as is shaped by, ongoing processes of resource development.

Data collection and analysis

The main data was collected through semi-structured interviews (Hesse-Biber and Leavy, 2011) with several organizations and individuals involved in the five projects. In total 57 interviews were performed with 37 individuals in key managerial roles of different actors in the projects, such as project managers, site managers, planning coordinators, project engineers, building directors etc. Among the 57 interviews; 12 interviews represents the client, 15 interviews represents the contractor, 10 interviews represents consultant organizations, 6 interviews represents architect organizations, 9 interviews represents the tenants and 5 interviews represents suppliers. The interview time ranged between 25 min and 2h, with an average of 70 min. Table 2 summarizes the interviews conducted by type of organization, professional role of the respondent (note that some respondents have two positions reflecting shifting positions over time), number of interviews with the respondents and data collection periods of the interviews.

The data collection for this study took place over an extended time period, from 2012 to 2024, and was conducted in three main phases aligned with the projects being investigated. The first phase (C1) occurred between 2012 and 2013, primarily focusing on data collection related to P3, but also capturing data and information about projects P1 and P2. In 2019, four follow-up interviews were conducted to assess the outcome of P3 after the healthcare facility had become fully operational. The second phase (C2) took place between 2016 and 2017, focusing specifically on project P4. The third phase (C3) occurred from 2019 to 2021, concentrating on P5, with additional follow-up interviews conducted in 2024. Figure 1 provides an overview of the studied projects' time line and the data collection phases.

In addition to the interviews, the authors conducted five site visits. For P3, two visits were made: one in 2012 and another in 2013, to observe the construction progress. A site visit to P4 was carried out in 2016, while P5 was visited twice, in 2019 and 2021. Furthermore, two of the authors were based at the same location as P5, allowing them to observe the construction progress and experience the outcome of P5 in real time. The authors were also granted varying levels of access to internal project documentation. For P3, organizational plans, tender documents, and the partnering contracts were included. In P4, access was given to the project documentation system, which included meeting minutes, protocols, organizational plans, and partnering documents. Access to internal documentation for projects P1, P2, and P5 was more limited, with some internal documentation provided during interviews related to P5.

Thus, the emergent longitudinal study involves a large data set including interviews, documentation as well as site visits covering the multi-project setting. As mentioned, the authors used an abductive approach – moving iteratively between insights on partnering and resource interaction in relation to the empirical case (Dubois and Gadde, 2002b). The focus of the study was not to follow partnering in isolation, but to track the resources associated with partnering across projects, investigating and mapping the “multilevel interactions” (Langley *et al.*, 2013). Due to the large data set it was challenging for the authors to structure the data. Initially the authors used RIA very broadly by identify key resources in each project based particularly on the interviews, sorting them into physical and organizational type of resources. During this process the authors identified several key resources stretching several project such

Table 2. Table of interviews

Organization	Position	Identity	#Interviews	Data collection periods
Client	Project manager	R1	6	DC1: 2012-2013, 2019
Client	Head of projects	R9	1	DC1: 2013
Client	Manager technical maintenance	R14	1	DC1: 2019
Client	Project manager	R17	3	DC2: 2016, 2019 and DC3: 2024
Client	Head of real estate	R18	1	DC2: 2017
Contractor	Project manager	R2	3	DC1: 2012-2013 and DC2: 2016
Contractor	Project engineer	R4	1	DC1: 2012
Contractor	Site manager	R7	3	DC1: 2012-2013 and DC2: 2016
Contractor	Project engineer, Assistant site manager	R19	5	DC2: 2016, 2019 and DC3: 2021 and 2024
Contractor	Project engineer	R20	2	DC2: 2016 and DC3: 2019
Contractor	Digital expert	R24	1	DC2: 2017
Consultant	Planning coordinator	R3	2	DC1: 2012-2013
Consultant	Art consultant	R11	1	DC1: 2013
Consultant	BIM specialist	R22	1	DC2: 2017
Consultant	Construction consultant	R23	2	DC2: 2017 and DC3: 2019
Consultant	Construction design engineer	R25	1	DC2: 2017
Consultant	Planning coordinator	R27	1	DC2: 2017
Consultant	BIM specialist	R34	1	DC3: 2024
Consultant	Design coordinator	R35	1	DC3: 2024
Architect	Main architect	R10	1	DC1: 2013
Architect	BIM coordinator	R13	1	DC1: 2013
Architect	Landscape architect	R28	1	DC2: 2017
Architect	Main architect	R29	1	DC2: 2017
Architect	Assistant architect	R30	1	DC2: 2017
Architect	Main architect	R33	1	DC3: 2019
Tenant	Chief physicist	R5	1	DC1: 2012
Tenant	Director of health	R12	1	DC1: 2013
Tenant	Operations manager	R15	1	DC1: 2019
Tenant	Director	R16	1	DC1: 2019
Tenant	Assisting building director, Building director	R21	2	DC2: 2017-2019
Tenant	Project manager	R26	1	DC2: 2017
Tenant	Head of faculty	R31	1	DC3: 2019
Tenant	Project manager	R32	1	DC3: 2019
Supplier	Project manager medical equipment	R6	2	DC1: 2012-2013
Subcontractor	Project manager ventilation	R8	1	DC1: 2012
Subcontractor	Project manager electricity	R36	1	DC1: 2012
Supplier	Project manager frame	R38	1	DC1: 2013
			57 in total	

Source(s): Authors' own work

as the relationship between the client and contractor, a recurring frame supplier, a new frame solution, a recurring BIM handbook etc. However, these examples seemed disparate and not necessarily part of a systematic effort to create a more efficient use of resources within partnering. Therefore, as part of the abductive approach, the authors revisited the data of the first partnering project, P3, with the aim to trace such systematic efforts of the involved actors.

In this revisiting of the data, the authors began to systematically group the previously identified resources by examining how they influenced core project activities and outcomes. Initially, the resources – such as a new frame solution, a BIM handbook, or recurring supplier relationships – had been identified as significant but lacking an obvious strategic connection.

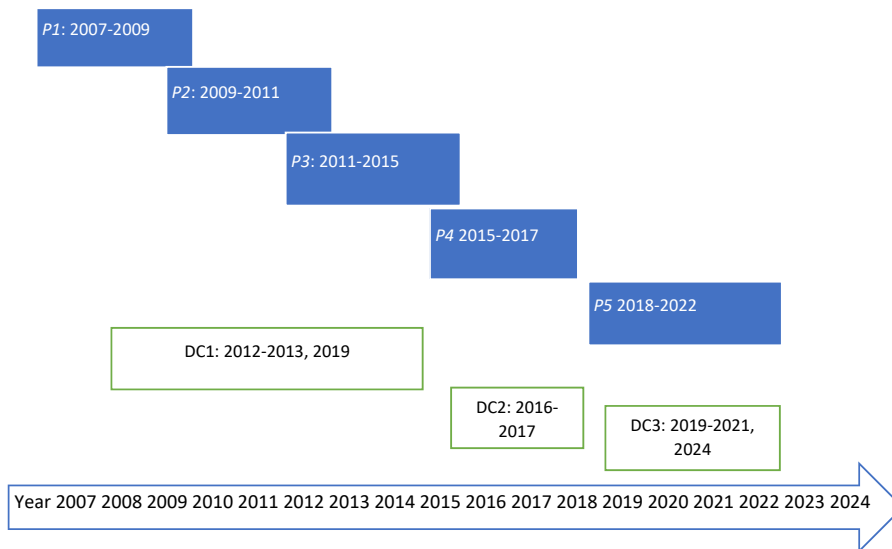


Figure 1. Timeline of the execution periods of the studied projects along with the empirical scope of the three data collection phases (DC1, DC2, and DC3). The placing of the data collection phases reflect which projects were included in each phase data-wise, not the chronological timing of the data collection. Source: Authors' own work

By shifting focus from the resources themselves to how they were activated and interacted within specific project activities, particularly across multiple projects, a clearer structure began to emerge. Rather than viewing the resources in isolation, the authors focused on uncovering patterns in how they were organized and mobilized across projects.

This analytical shift highlighted that certain project activities – particularly design and procurement – served as focal points for resource development and coordination. As a result, two major resource constellations emerged: joint design and joint procurement. These are not only central activities in any construction project – design shaping production conditions and efficiency, and procurement influencing costs and the coordination of subcontractors and suppliers – but were in this case also systematically shaped through partnering efforts, indicating a deliberately emergent and strategic approach to resource combining. In the following empirical presentation, Illustration I depicts the development of the resource constellation of joint design, while Illustration II details the resource constellation of joint procurement. Table 3 and Table 4 in the next section summarize the identified resources, one for each activity, including the use, re-use, and extension of resource constellations over time.

Empirical illustrations and analysis: developing joint resource constellations through an evolving partnering relationship

This section provides detailed empirical accounts of the development of joint design and joint procurement across the projects. It includes an analysis of each of these two activities through the lens of RIA, focusing on the resource constellations that emerge in the developments across projects, as well as how these two constellations relate to each other. By examining these activities in depth, the section aims to reveal how the resources involved are developed, combined, and adapted over time through the partnering relationship, through which the partnering relationship itself evolves.

Table 3. Key resources identified in Illustration I: Joint Design

Type of resource	Project 1	Project 2	Project 3	Project 4	Project 5
<i>Organizational resources</i> Categorized as organizational units, coordination capabilities, human expertise, business relationships (Jahre <i>et al.</i> , 2006; Gadde and Håkansson, 2008)	AcaH & design consultant's key units and relationships for design	AcaH & design consultant's key units and relationships for design	AcaH, design consultants, & BuCon key units and relationships for design	AcaH, design consultants, & BuCon key units and relationships for design	AcaH, design consultants, & BuCon key units and relationships for design
<i>Physical resources</i> Categorized as equipment, tools, products, facilities, and information systems (Jahre <i>et al.</i> , 2006; Gadde and Håkansson, 2008)			New design meetings	Re-use and development of design meetings	Re-use and development of design meetings
			New BIM meetings	Re-use and development of BIM meetings	Re-use and development of BIM meetings
			New BIM coordinator role	Re-use of BIM coordinator role New Design Studio	Re-use of BIM coordinator role Re-use of Design Studio New Production Studio
			New BIM handbook	Re-use and development of BIM handbook	Re-use and development of BIM handbook
				New BIMdoor New BIM tool–Revit	Re-use of BIMdoor Re-use of Revit New DocoWare New on-site frame

Source(s): Authors' own work

Illustration I: joint design

Although AcaH and BuCon maintained a close collaboration in P1 and P2, the traditional contract framework dictated that AcaH, in coordination with consultants from various disciplines, was solely responsible for managing the design process. This process was overseen by a design coordinator appointed by AcaH, who was tasked with integrating and coordinating the

Table 4. Key resources identified in Illustration II: Joint Procurement

Type of resource	Project 1	Project 2	Project 3	Project 4	Project 5
Organizational resources Categorized as organizational units, coordination capabilities, human expertise, business relationships (Jahre <i>et al.</i> , 2006; Gadde and Håkansson, 2008)	BuCon key unit for procurement	BuCon key unit for procurement	BuCon & AcaH key units and relationship for procurement–development of joint procurement competence	BuCon & AcaH key units and relationship for procurement–development of joint procurement competence	BuCon & AcaH key units and relationship for procurement–development of joint procurement competence
	New pre-fab supplier of the frame ElSub1 subcontractor for electricity VentSub1 subcontractor for ventilation	Re-use pre-fab supplier of the frame Re-use ElSub1 Re-use VentSub1	Re-use pre-fab supplier of the frame Re-use ElSub1 Re-use VentSub 1 New procurement meetings	Re-use pre-fab supplier of the frame New ElSub2 for electricity New VentSub 2 for ventilation Re-use and development of procurement meetings Architect unit active in procuring façade & ceiling New process for façade & ceiling solution	Re-use pre-fab supplier of the frame Re-use ElSub1 Re-use VentSub1 for ventilation Re-use and development of procurement meetings Re-use and development of process for ceiling solution Re-use of preferred supplier list
Physical resources Categorized as equipment, tools, products, facilities, and information systems (Jahre <i>et al.</i> , 2006; Gadde and Håkansson, 2008)			New preferred supplier list	Re-use of preferred supplier list	
				Procurement portal of contractor shared New ceiling solution New façade solution	Procurement portal of contractor shared Adjusted frame solution

Source(s): Authors' own work

consultants' contributions into the final design drawings. In P3, the introduction of a partnering agreement between AcaH and BuCon, due to the complexity of the project and health care facility to be constructed, led to several developments in how the design work was carried out. BuCon joined the design organization during the system design phase to ensure the "buildability" of the facility. When BuCon was included in the design organization, their established relationship with AcaH became the primary influence on the design process. Instead of design decisions being driven solely by AcaH and its consultants, the collaboration with BuCon played a central role in shaping how the design work was carried out. AcaH and BuCon jointly decided that the design organization needed to implement BIM for design drawings, not only to facilitate the construction phase but also to enhance the operational efficiency of the final facility. This decision led to several significant changes compared to the previous projects (P1 and P2). A key adjustment was the need to appoint a *BIM coordinator* to integrate and manage the various discipline-specific BIM models into a cohesive, unified model. The lead architect was able to provide a qualified individual for this role. Additionally, a digital strategy had to be developed, outlining the required level of detail for building information, prioritizing BIM usage, and defining its purpose in the design process. This strategy was collaboratively formulated by AcaH, BuCon, the architect, and the design coordinator, incorporating lessons learned from earlier projects to create a joint approach. As a result, a *BIM handbook* was developed to guide future projects.

To further support the integration of BIM, dedicated *BIM meetings* were established alongside regular design meetings, ensuring focused discussions on model development and its application during the construction phase. However, organizing joint design work with BIM required significantly more time, as emphasized by the Design Coordinator in the following quote:

It required so much more of my time to find these methodologies together with AcaH, BuCon, and the design consultants . . . We hadn't fully understood the complexity, which made the planning more costly and required more resources than we had perhaps anticipated initially. (Design Coordinator, R3)

In the subsequent project, P4, the joint design approach established in P3 was reactivated and further refined. From the outset, BuCon was integrated into the design organization alongside AcaH and the design consultants, this time at an even earlier stage than in P3. As before, a BIM coordinator was appointed, BIM meetings continued, and the BIM handbook was implemented – now adapted to suit the specific design requirements of P4. A key advancement in BIM implementation was the decision, jointly made by AcaH and BuCon with support from the design coordinator, to standardize the use of *Revit* as the sole design software for all consultants involved. This facilitated collaboration and model integration. Additionally, to address challenges in door design, a new BIM-based door database, *BIMdoor*, was tested to improve the management of door specifications, aiming to enhance both construction efficiency and long-term maintenance. BuCon's presence in the design organization also led to cost-saving building solutions. For example, they proposed a more streamlined and cost-effective glass ceiling solution, replacing the architect's initial, more complex design.

Building on lessons from P3, AcaH and BuCon recognized an opportunity to push joint design work even further. BuCon introduced the idea of co-locating the design organization's various disciplines twice a week, drawing inspiration from their own internal design approach, referred to as *DesignStudio*. AcaH agreed to test *DesignStudio* by co-locating the design team at their offices to enhance collaboration during P4's design phase. To further strengthen the joint approach to design, it was also decided that the entire design organization – not just the client and main contractor – would participate in an initial partnering workshop. Reflecting on this development, the Site Manager remarked:

We are extremely early in the next project, and we see what can be improved, and so does AcaH . . . Even the design organization needs to be part of the partnering mindset, and we need to think cooperation 100% of the time. (Site Manager, R7)

In P5, the joint design work involving AcaH and BuCon was once again used and further developed. In addition to reusing BIM models, appointing a BIM coordinator, and continuing with the door database, the design organization also introduced *DocoWare*, design software that helped track progress, decisions, and store documents. The co-location concept from P4 was further applied in P5, with BuCon agreeing to let the design coordinator from AcaH fully implement the *DesignStudio* concept developed by BuCon, something that had never been done before. This marked an important change, not only on the project level but also organizational or firm level, as it was the first time a client participated in this setup. The *DesignStudio* concept was also extended into a new *ProductionStudio*, located on the construction site, which was a new step for BuCon as well. Moving the design organization to the construction site helped with both construction and managing design changes. For example, when COVID-19 delayed material deliveries, the design team, working with BuCon, decided to change the building's frame from pre-fabricated to an on-site casted frame. This decision was made easier because of the close collaboration between design consultants and construction staff, making it quicker to discuss and figure out the redesign. BuCon's expertise in on-site casting helped save about 1 million SEK. Additionally, the glass ceiling solution from P4 was used again and further improved in P5. The architect in P5 had designed a complicated ceiling, but BuCon's input helped simplify the design, reducing both time and costs. It is estimated that the new design saved between 5 and 7 million SEK. The Assistant Site Manager of P5 explained the redesign process and how the design and construction phases worked together in the following quote:

There was a very advanced steel structure designed in the system and construction drawing, incredibly costly. So we optimized it by using hanging supports there instead. We had actually done something similar for P4 – a similar atrium roof. So here, we essentially developed that further . . . and it also resulted in an enormous cost saving . . . The design drawings were finalized in conjunction to the construction, and there were optimizations and . . . adjustments along the way. (Assistant Site Manager, R19)

Analysis of illustration I

By the last of the project included in the study – P5 - a resource constellation of both physical and organizational resources adapted to one another and aimed at optimizing joint design had emerged. The *DesignStudio* and the *ProductionStudio*, originating from the contractor's organization, evolved into physical resources jointly utilized and developed by the client, contractor, and associated consultants on the project level. In particular, the architect and design coordinator played critical roles in design and redesign work throughout the projects. Through these shared resources (*DesignStudio* and *ProductionStudio*), BIM prompted or enabled the use and development of physical resources such as *Revit*, *BIMDoor*, and the *BIM handbook*. Alongside these tools, the BIM coordinators and BIM meetings emerged as key organizational resources for managing the models across the projects. Additionally, *DocoWare* was introduced as a physical resource to monitor and store communication and decision-making during joint design work. The joint design effort also resulted in the redesign of specific physical resources in the buildings, including the on-site frame solutions and more cost-effective ceiling solutions.

With the introduction of partnering in P3, both partnering actors decided to deepen their commitment to each other on the organizational level, through joint design, recognizing the potential to combine and adapt resources related to design over time. Establishing joint design initially involved a significant investment, such as integrating the contractor into the design organization and deciding to adopt BIM-based design. This decision necessitated further resource adaptations, including the introduction of *BIM meetings* and the appointment of *BIM coordinators*. The shift to include a partnering agreement in the established relationship required more man-hours from both the contractor and client. However, based on past interactions and future expectations both parties viewed and valued this investment in the relationship from a long-term perspective.

Opening up the internal facility of *DesignStudio* to external units, including the client and other design units, reflects the increased commitment and trust in the relationship. This expanding engagement of the full design organization in the partnering process also indicates an embedding of collaborative routines beyond project boundaries, signaling a shift toward organizational-level practices. This decision was grounded in the goal to improve and become more efficient in design work, both within individual projects and over time. This also created an opportunity to further adapt and combine resources within the *ProductionStudio* as a joint facility. Both the client and contractor were incentivized by the economic potential of resource development over time, prompting collaboration that extended beyond individual projects and spanned multiple initiatives. The illustration also highlights the critical role of design in shaping the projects' economic outcome. With partnering agreements promoting transparency and "open-book" practices, the development of a joint design approach aimed to minimize construction time and on-site changes – factors that directly influenced the projects' overall economic performance.

These developments suggest that partnering not only facilitated project-level efficiencies but also triggered adaptations at the organizational level – on both the client and contractor sides – toward more integrated and reusable resource constellations. The formalization of joint tools (e.g. *BIM handbook*, *DesignStudio*) and shared routines point to emerging templates that could travel across organizational settings and potentially influence wider industry practices. Thus, while the partnering relationship initially focused on project-specific outcomes, it increasingly served as a mechanism for broader organizational change. These changes also highlight how long-term partnering may challenge the temporary orientation of project-based industries by encouraging more durable resource configurations across multiple actors.

Illustration II: joint procurement

In P1 and P2, procurement followed the traditional DBB model, where BuCon independently handled procurement based on AcaH's design drawings. However, the introduction of a partnering agreement in P3 marked a clear shift, making procurement a more collaborative process between the two partnering actors. The partnering agreement emphasized "full transparency" between the parties, which included granting the client complete access to the contractor's procurement portal. To facilitate this, specific procurement meetings were established, involving key individuals (8–10) from both the client and contractor sides. Initially, the focus of these procurement meetings was to review all relevant suppliers and subcontractors, both from the client's and contractor's side of the partnership. This included discussing framework agreements, central supplier agreements, and past experiences with suppliers on previous projects. Based on these discussions, a suggested list of preferred suppliers was compiled, typically consisting of 3–5 suppliers per material category. Invitations for tenders were then sent out to these companies.

However, eventually the parties also engaged in procurement planning in joint procurement meetings, determining what materials to procure, when to procure them, and from which suppliers. Setting up joint procurement within the partnering framework proved to be a time-consuming process. For P3, the assessment of suppliers and subcontractors led to the selection of key suppliers from the prior projects, P1 and P2, including the pre-fabrication frame supplier and several installation companies. The decision to retain these suppliers was based on cost considerations as well as their proven performance on previous projects, including the reliability of specific foremen. The establishment and development of joint procurement in the partnering relationship is further explained in the following quote:

... [partnering] require a bit more time in all phases so to say ... to look into the open books of the contractor is a totally open and transparent relationship, it should be, otherwise it is not partnering (Project Manager, R1)

In P4, a similar joint procurement setup was established between the contractor and the client, where both parties had full visibility into the procurement decisions and complete transparency regarding access to the contractor's procurement portal. Unlike in P3, in P4 a comprehensive assessment of all available suppliers was not required, as the suggested supplier lists from P3 served as a starting point. As a result, the same pre-fabrication supplier from P1 to P3 was retained, while new subcontractors for ventilation and electrical work were selected to address issues that had emerged with previous subcontractors in earlier projects. The joint procurement process continued to evolve, and smaller purchases no longer required discussion at procurement meetings. Instead, more focus and time were dedicated to procuring critical strategic materials, such as those for the façade, the building's frame, and its installations. One particularly complex aspect was the procurement of the façade. The architectural firm's innovative design, which featured a new type of curtain-wall façade, required careful planning and collaboration through joint procurement. To ensure the successful delivery of this complex façade, the procurement process was initiated with the creation of an International Request for Quotation at an early stage in P4. This request was developed jointly by both partnering actors even before the formal signing of the construction and partnering agreement. The intricacies of this procurement process and the challenges it presented are further explained by the Project Manager of the client, as follows:

We had to secure that [the façade] in time, for deliveries and such. But also, to ensure that we brought that knowledge into the project planning, with the core team, because they are very much interconnected. So, they procured even before AcaH and BuCon had an agreement, we procured them on a small preliminary agreement. It has been absolutely necessary ... The façade system was something that was developed in partnering, even more in P4 [than in other projects], where the façade was very complicated (Project Manager, R17)

By P5, the joint procurement team largely consisted of the same individuals as in P4, with many key members also having participated in P3. This continuity in personnel created stronger collaboration and greater efficiency throughout the procurement process. Additionally, the incorporation of both the *DesignStudio* and *ProductionStudio* in P5 further strengthened the involvement of design expertise in the procurement process. These studios contributed essential design attachments for quotation requests and provided valuable input on procurement alternatives for specific design solutions. The continued alignment of procurement with design and production was crucial in shaping the project outcomes, as explained by the Design Coordinator:

These aspects where we could get help from BuCon from their procurement organization—where can we buy these items with the shortest lead time, with the same quality? That was a major part of it. (Design Coordinator, R35)

In P3, the first partnering project, the procurement process was heavily focused on installations due to the demanding requirements of the cutting-edge radiation therapy technology. Many procurement meetings were centered around planning and selecting installations, with the support of external installation experts. The insights gained from P3 were further refined and expanded within the joint procurement team, with some continued assistance from external experts. By P5, however, the procurement team no longer required external expertise for installations. Both the client and contractor had developed a strong joint competence and knowledge base regarding installations and their procurement. As a result, the team was able to streamline the procurement process, saving both time and money. The assistant Site Manager elaborated on this achievement in the following quote:

We had a very strong individual for installation coordination on our side, and extremely high competence on the client's side. This meant that we didn't need a specialist buyer for installations; we had the expertise ourselves to make these purchases. (Assistant Site Manager, R19)

To ensure the successful delivery of the projects within budget across all partnering projects (P3-P5), it was crucial to continuously review delivery times and the costs of procured materials within the joint procurement approach. Both P3 and P4 were completed according to the targeted budget, while P5 was delivered approximately 100 million SEK *under* budget. This achievement was largely attributed to the effectiveness of the joint procurement approach, which allowed for constant monitoring and adjustments to keep the projects on track financially. Ultimately, joint procurement played a key role in ensuring that the partnering projects operated efficiently within the open-book framework, aligning procurement activities with the overall project goals. The significance of joint procurement for cost control and project alignment in these partnering projects was further elaborated on as:

In the bid of the partnering contract, they [the contractor] present a budget, and then we work towards this budget, aiming to keep it. Then the big thing is to be successful in procurement. Through partnering, we gain insight into purchasing and become involved in it. (Project Manager, R17)

Analysis of illustration II

By the time of P5, a well-established resource constellation of both physical and organizational resources had been adapted and combined to optimize joint procurement, facilitating increased effectiveness and efficiency across projects. *Procurement meetings* became a central organizational resource for coordinating joint procurement, bringing together key individuals from the client, contractor, and external suppliers. These meetings were structured to review material, supplier and subcontractor choices, making the procurement process more transparent and collaborative. The physical resource of the contractor's *procurement portal* was shared with the client, ensuring full transparency and facilitating trust between the two partnering actors.

The combination of organizational resources, such as the procurement meetings and the physical resource of the procurement portal, directly impacted decisions on supplier selection. For example, the pre-fabrication frame supplier was consistently chosen as a preferred material supplier, and certain subcontractors were retained across multiple projects. This continuity allowed for more efficient procurement processes and ensured better adaptation of resources across the project timeline. In particular, the *architect's role* as an organizational resource was key to directing the procurement of the façade. The procurement of the physical façade product was a result of adaptations between the central procurement portal, procurement meetings, and collaboration with the façade supplier and architect, which enhanced effective and efficient decision-making.

The development of *joint procurement competence* across the client and contractor became another essential organizational resource. This shared competence enabled the partnering actors to optimize procurement activities and manage more complex decisions without relying on external experts. For example, by P5, the procurement team had gained sufficient knowledge to procure installations without additional external support, reducing costs and increasing efficiency. This shared procurement knowledge was a key factor in driving the success of joint procurement. The process also highlights the strategic use of physical resources, such as the *DesignStudio* and *ProductionStudio*, which were originally implemented for joint design work but also played a critical role in supporting joint procurement. These facilities allowed for real-time collaboration, enabling the integration of design and procurement processes. The physical proximity of the design and production teams facilitated the coordination of design changes with procurement decisions, further enhancing the efficiency of both activities.

The shift to joint procurement was not a random or coincidental decision but was instead driven by deliberate actions of the partnering actors on the organizational level. As with joint design work, the transition to joint procurement required significant initial investments of time

and resources. However, the long-term economic benefits, achieved through the re-use of suppliers, the development of joint procurement competence, and the continuous refinement of the procurement process, emerged as the projects progressed. By opening up the central procurement portal to the client, both parties demonstrated a high level of trust and commitment, reflecting the increasingly deepened interaction and nature of their relationship. The adaptation and combination of these resources across projects enabled the partnering actors to manage procurement more efficiently, minimize costs, and respond more flexibly to on-site challenges.

Thus, the evolution of joint procurement demonstrates how physical and organizational resources can be effectively adapted and combined over time to create efficiencies in the procurement process. The increased competence of both the client and contractor, along with the strategic use of shared physical resources impacting both design and procurement, like *DesignStudio* and *ProductionStudio*, highlights how resource interactions drive improved project outcomes and facilitate long-term efficiency. These adaptations demonstrate how repeated interaction in partnering projects can stimulate cumulative resource development across organizational boundaries. As procurement knowledge and routines are consolidated and shared, they contribute to more efficient inter-organizational collaboration. Over time, such joint capabilities may evolve into shared standards or frameworks that influence procurement beyond individual organizations and firms. Overall, the evolution of joint procurement illustrates how partnering, when sustained over time, can serve not only as a project governance tool but also as a catalyst for reshaping resource practices within and across firms – with possible ripple effects on how procurement is understood and practiced in the construction sector at large.

Discussion

The aim of this study was to explore how a resource perspective can enhance the understanding of the dynamics through which project partnering may enable long-term development within and across project networks. The following discussion illustrates how using this perspective allows for the study of partnering relationships beyond the temporary boundaries of individual projects, revealing how they can create continuity and function as a governance mechanism for joint resource adaptation and long-term development. In an otherwise fragmented context, this approach highlights how partnering can facilitate sustained collaboration across projects and a broader network of actors (Gadde and Dubois, 2010; Havenvid *et al.*, 2016a). These findings further demonstrate how such partnering arrangements can contribute to broader changes at both the organizational and industry levels by enabling systematic resource development practices that go beyond project-specific gains.

Firstly, the study contributes to research on partnering by looking into the interplay between its formal and informal aspects (Bygballe and Svärd, 2019; Rosander and Kardefors, 2023). Through an interactive resource perspective, this study stands in contrasts to the dominant view in the partnering literature of resources as fixed assets to be managed within a specific contractual framework (Bygballe *et al.*, 2010; Havenvid *et al.*, 2016a), and instead emphasizes how resources—and partnering itself—evolve through repeated interaction grounded in both formal structures and informal collaboration. In this perspective, the studied partnering relationship functioned as a resource that partnering actors used to mobilize and adapt other resources, contributing to long-term value creation beyond the immediate project setting. The study also demonstrates how the partnering relationship itself evolved and adapted over time alongside the development of other resources, for instance, in terms of timing and types of interaction between the two partnering actors. This also situates the partnering relationship within a broader network of actors, emphasizing its co-evolution with other resources in response to calls for expanding the focus beyond the dyadic client-contractor relationship in earlier partnering research. By framing partnering as an inter-organizational resource, the study broadens the understanding of its multi-actor impact, adding to the evolving discourse in partnering research (Crespin-Mazet *et al.*, 2015; Eriksson, 2015; Sundquist *et al.*, 2018).

Secondly, another key contribution of the study is its demonstration of how and why partnering actors may engage in jointly developing and adapting resources over time. The study shows that the partnering actors used partnering to deliberately enhance the economic efficiency of two critical construction project activities—design and procurement—both of which are crucial for project cost-effectiveness. In setting the conditions for the project at large, these activities are particularly critical as they shape the project’s overall cost structure and potential for innovation. The study highlights how collaborative efforts in these important activities enabled the actors to adapt resource utilization over time and to evolving project needs, ultimately enhancing both project performance and long-term benefits. This contributes to the literature pointing to the benefits of strategic partnering, a form of partnering which remains rare ([Sundquist et al., 2018](#)). The study offers an interactive interpretation of how strategic partnering emerges from repeated project interactions, illustrating the forming of a deliberately emergent strategy of collaborating systematically and in a structured way through project partnering across multiple projects for the sake of mutual benefits over time, as discussed by [Havenvid et al. \(2017\)](#). In this view, what begins as project-based collaboration becomes a strategic resource arrangement, co-evolving with other organizational as well as physical resources and laying the groundwork for organizational, and if developed further and spread, industry change.

Thirdly, in showing how these project actors managed to make resource adaptations both within and across projects, the study demonstrates the possibility of balancing short-term and long-term benefits, and how a deliberately emergent strategy of doing so ultimately may enhance project performance over time. Balancing the cost and benefits of engaging in such deepened collaboration relates to how economies of repetition (c.f. [Lundin and Söderholm, 1995](#)), or from a RIA perspective - “economies of adaptation” - could be achieved across a series of projects and beyond. This enhances the understanding of project partnering as a governance mechanism for long-term development as called for by [Bresnen et al. \(2025\)](#). Hence, resource adaptations were not just one-off investments for immediate project benefits but were made with a shared understanding of future re-use and development. In this case, achieving economies of adaptation required improving resource adjustments across projects in joint design and procurement. This formed the deliberately emergent strategy, with incremental, stepwise adaptations through joint learning, decision-making, and co-creation ([Eriksson and Nilsson, 2008](#); [Crespin-Mazet et al., 2015](#); [Roehrich et al., 2019](#)). As such, the study illustrates how strategic partnering can emerge as a cumulative and adaptive process – anchored in evolving resource constellations – that not only enhances project efficiency but also enables long-term capability development and organizational learning across organizational boundaries.

Finally, the study contributes to the understanding of the specific context of PBOs - the challenge of aligning and scaling development efforts from the temporary project level to the permanent organizational level - ([Gann and Salter, 2000](#); [Shibeika and Harty, 2015](#)), as well as the industry level as called for by earlier studies ([Bygballe and Svärd, 2019](#); [Rosander and Kardefors, 2023](#); [Kadefors et al., 2024](#); [Bresnen et al., 2025](#)). In particular, it demonstrates that the permanent level can be influenced by temporary project activities. As client and contractor organizations recognize the value of “economies of adaptation” at the project level, this realization hinges on the engagement of the permanent levels within both organizations. For example, the client’s permanent level needed to be activated to develop requests for proposals for future projects, where not only price but also softer aspects—such as project organization and prior partnering experience—were critical factors. Similarly, the contractor’s permanent organization had to collaborate closely with key managers involved in the projects to develop bids, propose a suitable project organization, and present relevant partnering projects as references. Contrary to [Dubois and Gadde \(2002a\)](#) characterization of construction relationships as primarily marked by low involvement, which is often the case, this paper highlights a scenario where the partnering relationship is defined by high involvement across projects. This high involvement is the result of (re-)activating resource adaptations at the project level, which, in turn, is connected to adaptations at the permanent levels of both partnering organizations. This recursive interaction across organizational levels and over time

responds to calls for a more embedded and longitudinal understanding of partnering by illustrating how temporary project-based resource constellations – through repeated adaptation and combination – can generate lasting economic value, reconfigure organizational routines, and reshape inter-organizational interfaces, thereby laying the groundwork for broader structural change at the sectoral level.

Conclusions

Theoretical contributions

This study explored how a resource perspective may deepen the understanding of the dynamics that allows project partnering to support continuity and long-term development across multiple projects, and beyond. It examined partnering not merely as a contractual agreement but as an evolving and interactive resource embedded in broader constellations of physical and organizational resources. Through such constellations, partnering acted as a governance mechanism that enabled the ongoing adaptation, combination, and development of interconnected resources within and between project networks, in which the partnering relationship itself evolved. Such a perspective has important implications, and contributes to research on partnering and on PBOs. Overall, the study contributes to emerging research on the governance of inter-organizational project (IOP) networks by demonstrating how partnering operates not only within single projects but also as a distributed governance mechanism at the network level (Müller *et al.*, 2022). By uncovering how joint resource constellations emerge, stabilize, and evolve across interconnected projects and relationships, the study shows how governance functions can be enacted through network interaction, mutual adaptation, and evolving interdependencies over time rather than through centralized control (DeFillippi and Sydow, 2016).

First, the study demonstrates how partnering – when understood through an interactive resource lens – can generate value not only by coordinating tasks but by enabling continuity in resource development across projects and time. By recognizing partnering as an evolving aspect of business relationships, the study reveals how joint resource adaptation and long-term development can be facilitated through systematic governance of the inter-organizational relationship between clients and contractors, and with other important project actors. This insight reveals how partnering can evolve from a project-centric mechanism to a relational infrastructure supporting sustained learning and embedded collaboration across temporal and organizational boundaries. *This underscores the potential of partnering as a way of achieving long-term collaboration in construction on project, organizational and industry levels, offering valuable implications for the sustainability of such relationships.*

Second, the research challenges the traditional view of resources as fixed assets, instead presenting them as dynamic entities shaped by ongoing inter-organizational relationships across time and projects. The study contributes to a more nuanced understanding of partnering relationships as inter-organizational resources in themselves - co-evolving alongside tools, routines, competencies, and infrastructures. This shift in perspective expands the understanding of partnering relationships as evolving inter-organizational resources that co-evolve with other project resources, thus highlighting their impact on multi-actor constellations in project networks and the importance of conscious and strategic efforts of how to use such relationships from a long-term perspective. Importantly, this co-evolutionary perspective not only clarifies how partnering can enable long-term collaboration and innovation but also reveals why such outcomes do not automatically follow. The findings illustrate that long-term benefits emerge only under certain conditions—such as recurring collaboration, trust-building, alignment of economic interests, and early integration in critical project phases and strategic activities. Where these conditions are absent, partnering may fail to generate lasting resource development or strategic alignment. *The findings primarily offer concrete examples of when and under what conditions such long-term relationships can be established within construction, providing insights into the foundations of deeper, more sustainable partnering relationships in construction projects, with implications for also organizational and industry levels.*

Third, the paper highlights the critical role of economic incentives and drivers in enabling long-term resource development. The concept of “economies of adaptation”, here introduced and derived from the applied interactive resource perspective (RIA), directs attention to how repeated resource adjustments – rather than fixed economies of scale – create value across interlinked projects. It directs attention to how organizations balance the upfront costs of resource adaptations with their potential long-term economic benefits. In this sense, resource development becomes not just a by-product of repeated collaboration but a central rationale for engaging in partnering relationships over time. By framing resource adaptations as an ongoing, iterative process across multiple projects, this idea underscores the importance of considering not just immediate project needs but also how these adaptations can influence future projects. This approach provides new insights into how construction actors can systematically re-use and adapt resources over time. *The findings respond directly to recent calls for research that embeds partnering within wider organizational and temporal contexts (Bresnen et al., 2025), expanding the understanding of how resource constellations can serve as both a foundation and vehicle for broader transformation at organizational and industry levels.*

Managerial implications

The findings of this study yield several managerial implications for actors operating at the project, organizational, and sectoral levels in the construction industry—where the sectoral level extends the focus beyond firms to include policy makers and institutional actors shaping the broader construction context. At the project level, the results suggest that partnering should not be regarded as a short-term solution or contractual mechanism, but rather as a long-term developmental process. Realizing the potential benefits of partnering requires sustained effort and mutual commitment between project actors, as trust and coordination evolve over time. While partnering is part of a mindset that should be practiced throughout the project, its effectiveness depends on how collaborative efforts are directed in relation to resource adaptation. Particular emphasis should be placed on activities such as design and procurement, where the scope for resource adaptation is greatest. These activities offer critical opportunities to adapt and combine resources across organizational boundaries, thereby shaping project outcomes and enabling both cost efficiency and innovation.

At the organizational level, managers are encouraged to adopt a long-term perspective when evaluating the costs and benefits of partnering. The economic value of partnering often remains hidden within the confines of a single project and only becomes evident over time – through economies of adaptation—as actors engage in repeated collaboration and mutual adaptation. This includes both organizational and physical adaptations. To enable such development, firms must establish mechanisms that promote continuity across projects, particularly among recurring actors such as contractors, clients, and consultants. Through these sustained relationships, firms can accumulate experience and shape resource constellations that support more efficient as well as innovative collaboration. Resource development should therefore be seen not merely as a matter of operational efficiency, but as an ongoing relational process shaped through interaction and the adaptation of resources across project networks.

At the sectoral level, this study offers important implications for policy makers and institutional actors seeking to support more integrated and innovative project practices, with the broader aim of enhancing the overall performance of the construction industry. While the paper has thus far referred to the industry level to examine the economic implications of resource development within and across projects and firms, this section adopts a sectoral perspective to consider the institutional conditions—shaped by public actors and policy frameworks—that influence how resource development contributes to long-term efficiency and value creation in construction. On this level, partnering should be understood and promoted not as a fixed contractual model, but as an adaptive capacity that emerges and evolves through repeated interaction, mutual learning, and resource alignment across projects. Sector-wide initiatives that encourage early-phase integration, promote transparency, and foster long-term

collaboration—particularly in strategically significant activities such as design and procurement—can help embed partnering more systematically into everyday practice. Moreover, policy measures that facilitate continuity across projects, strengthen relational structures, and mitigate the fragmentation inherent in project-based settings may support more sustainable value creation and learning trajectories across the construction sector.

Further research

Given the study's focus on an in-depth, longitudinal examination of a single partnering relationship involving one client and one contractor within the Swedish construction sector, future research could fruitfully explore partnering dynamics across a broader range of contexts. Studies involving other types of clients, contractors, and national settings would enable comparison and further validation of the patterns observed here. The detailed case design adopted in this study has offered valuable insight into how partnering unfolds over time and how resource adaptations are negotiated across projects. Building on this, the authors encourage further application of the RIA perspective to deepen understanding of the resource-related foundations of partnering relationships.

This study primarily concentrated on the temporary project level, where the collaborative work was enacted. Future research could expand this scope by investigating the interaction between temporary project structures and the more permanent organizational levels of the partnering actors in depth. Such studies would provide a more comprehensive picture of how partnering relationships are sustained over time, and how learning and resource adaptation travel between levels. In particular, this would contribute further to understanding the scalability and long-term viability of partnering as a collaborative model.

Moreover, there is promising potential to explore high-involvement, long-term relationships through the RIA lens in other project-based settings beyond construction. By unpacking how resource adaptations underpin collaboration in different temporary yet recurring constellations, such studies could offer broader insights into learning, innovation, and strategic coordination in complex, project-based environments.

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Corresponding author

Åse Linné can be contacted at: ase.linne@angstrom.uu.se