

NAVIGATING PARADOXES OF INTERORGANISATIONAL COLLABORATION FOR SUSTAINABILITY TRANSITIONS: EXPERIENCES IN AND OF TWO LIVING LABORATORIES

Paul W Chan¹, Edith van Ewijk², Kees Stam³ and John Heintz⁴

^{1,2,3&4} Technische Universiteit Delft, Faculty of Architecture and the Built Environment, Department of Management in the Built Environment, PO Box 5043, 2600 GA Delft, The Netherlands

² Universiteit van Amsterdam, Faculty of Social and Behavioural Sciences, PO Box 15629, 1001 NC Amsterdam, The Netherlands

³ Hogeschool Rotterdam, Centre of Expertise (CoE) HRTech, Heijplaatstraat 23, 3089 JB, Rotterdam, the Netherlands

Interorganisational collaboration has been a longstanding, central topic of interest to researchers and practitioners in construction management. Early studies have approached collaboration through factors- or indicators-oriented modes of theorising, with more recent studies zooming in on the practices of collaboration. Yet, how collaboration emerges and what effortful accomplishments need to be in place for collaboration to work remain under-explored. In this paper, we investigate how interorganisational collaboration emerges in the context of sustainability transitions, where transitions are characterised by long-term endeavours that go beyond a single project, and which are typically known for high levels of uncertainty and novelty. Through two living laboratories for regenerating the port cities of Amsterdam and Rotterdam, in which we work as engaged scholars in these settings we analysed how, how actors navigate through the paradoxes of identity, challenge specificity, and temporal uncertainties are analysed as they come together to learn to collaborate.

Keywords: collaboration; engaged scholarship; living lab; paradoxes; transitions

INTRODUCTION

Over the past decades, interorganisational collaboration has become a central topic of interest for researchers and practitioners in the field of construction management. Responding to criticisms about the industry's sub-optimal performance and attempting to integrate the fragmented landscape of industry actors, researchers have proposed interorganisational collaboration as a means to break down barriers between key players and interfaces, for example, between design and construction (Rutten *et al.*, 2009). Early studies focussed on identifying the factors that enable collaboration, highlighting the importance of building trust between different actors to combat adversarial relationships in construction (e.g., Deep *et al.*, 2021; Daboun *et al.*, 2023).

¹ p.w.c.chan@tudelft.nl

Chan, P W, van Ewijk, E, Stam, K and Heintz, J (2024) Navigating Paradoxes of Interorganisational Collaboration for Sustainability Transitions: Experiences in and of Two Living Laboratories *In: Thomson, C and Neilson, C J (Eds) Proceedings of the 40th Annual ARCOM Conference, 2-4 September 2024, London, UK, Association of Researchers in Construction Management, 749-758.*

Apart from the factors or indicators of successful collaboration, researchers have also been concerned with the structure of making collaboration across organisations work. Rutten *et al.*, (2009), for instance, synthesized the literature on interorganisational collaboration to highlight the role played by the architect and the contractor as systems-integrator for design and construction respectively. In the context of innovation, Winch and Courtney (2007) focussed on the intermediary role played by institutional knowledge brokers in facilitating collaboration between the providers and users of innovation. Others have attempted to introduce process models for collaboration to emphasize the connections between business strategy, people development and technological change when driving change (e.g., Erdogan *et al.*, 2014; Saukko *et al.*, 2020). However, these linear process models and focus on identifying the factors for collaboration assume that collaboration can be rationally engineered. Critics have argued that these ignore the messiness of social complexities when enacting collaboration (Bresnen and Marshall, 2000).

In this paper, we join this critical view on collaboration by situating our study of interorganisational collaboration in the context of sustainability transitions in two port-city urban living laboratories, Amsterdam and Rotterdam. In so doing, we aim to draw attention to the messy social realities when enacting interorganisational collaboration as a process of navigating through emerging paradoxes. Inspired by Huxham and Vangen (2005) we chose not to take collaboration as a given from the outset, as studies have predominantly assumed, and instead ask: how does interorganisational collaboration emerge? By locating our study in the context of sustainability transitions, we also contribute to an understanding of interorganisational collaboration that goes beyond the dominant productivity agenda in the fields of project studies and construction management. Projects in transitions typically have high degrees of uncertainty and novelty, which obligate participants to transcend business-as-usual measures of time and cost performance (Gasparro *et al.*, 2022). Thus, by investigating how interorganisational collaboration emerges in such a context, we delve deeper into how, rather than by what means, collaboration works.

Interorganisational Collaboration in Transitions as a Paradoxical Process

In this section, we conceptualise interorganisational collaboration by bringing together three elements. First, we introduce the context of sustainability transitions as long-term endeavours characterised by the opportunities and threats of uncertainty and novelty, and where first-of-a-kind vanguard projects (Gasparro *et al.*, 2022) means that there is no business-as-usual template that can be repeated and reproduced. Second, we take a process view of collaboration (Berends and Sydow, 2019), which emphasizes the multiplicity and indeterminate ways in which collaboration plays out. Taking such a processual view means that we view collaboration not as a given thing to be studied but as a dynamic process that cannot simply be grasped by the grip of an engineering approach. Third, we consider organisational paradoxes as central in navigating through the emergence of inter-organisational collaboration. It is through paradoxes that, we argue, actors both established and incumbent make sense of the challenge of sustainability transitions, as well as the roles and interactions in the ever-changing constellations of actor networks.

Vanguard projects and sustainability transitions: Unlike interorganisational collaboration as typically studied in construction projects, sustainability transitions entail a high degree of uncertainty and novelty in what Gasparro *et al.*, (2022) termed vanguard projects. Such projects operate where system boundaries are unclear

(Yström *et al.*, 2019), and where heterogeneous groups of actors need to be assembled to bring new values, perspectives and expertise beyond those of the incumbents, and where processes of intermediation and learning are crucial in building networks around and in the projects to align disparate set of actors and their interests (Kuitert *et al.*, 2024). In the circularity transition, for example, scholars have shown that new interests, expectations and practices will need to be developed and incorporated to put the ambitions of such transitions to work. Koch-Ørvad *et al.*, (2019), for instance, showed how a Danish company that specialised in reused bricks had to create a lineage of exploratory projects to instigate the demand and supply of secondary materials. Eikelenboom and van Marrewijk (2023) also investigated how individual and collective reflective interventions can serve to critically evaluate current practices and problems of collaboration and create the conditions for the development and embedding of new practices of collaboration for circularity. Thus, the aim of (vanguard) projects for sustainability transitions is less about optimising for project performance, and more related to acting as a portal for innovation (van Bueren and Broekhans, 2013), so that lessons learnt from niche experiments and project-transcending innovations (Vosman *et al.*, 2023) can travel to and transform the existing unsustainable regime (Stam *et al.*, 2023). Here, the principle of shared goals as the basis for collaboration and templates of collaborative practices give way to practices of adaptation as actors explore unchartered terrain (Deken *et al.*, 2018).

Processual perspective of interorganisational collaboration: In such unchartered terrain of sustainability transitions, reproducing recipes for collaboration is not possible. To some extent, recent scholarship on interorganisational collaboration in construction recognises the limitations of 'standard', ready-made solutions. For instance, despite sharing the ideals of a relational (as opposed to a transactional) contracting model, Hällström *et al.*, (2021) and Rosander (2022) showed how power in social networks and the intentions and agency of actors can influence the routines and outcomes of collaboration in multiple ways. Thus, developing a process model for interorganisational collaboration would be futile without considering how such a model was enacted in practice. As Berends and Sydow (2019) argued, "inter-organisational relations exist only in so far as they are enacted" (3). Scholars on organisational routines have also long argued that routines are far from mundane, mindless repetitions, and that these are effortful accomplishments (Pentland and Rueter, 1994) that can be a generative source of innovation. Indeed, as Feldman *et al.*, (2016) stressed, "From moment to moment, and performance to performance, situated action requires effort. Ironically, doing the same thing can be more difficult than doing something different. Transferring routines, for example, involves effortful enactment and recreation rather than straightforward reproduction" (507).

Paradoxes in interorganisational collaboration for sustainability transitions: Paradoxes, defined as underlying contradictory tensions that are embraced in managerial responses even if these tensions inconsistent with one another (Smith and Lewis, 2011: 382), are central in interorganisational collaboration for sustainability transitions. A key paradox of, and one that is also a source of many challenges with, interorganisational collaboration lies in the concept of partner interdependence. On the one hand, the need for pooling each other's knowledge and resources for joint action can allow for greater range and impact of collaborative action; yet, on the other hand, partner interdependence can also lead to paralysis as there is added complexity in the decision-making process (Ryan-Charleton *et al.*, 2022). As a result, parties wait for one another to initiate action, which in turn could lead to collective inertia and the

problem of inaction (Leufkens and Noorderhaven, 2011; van Marrewijk and van den Ende, 2022). In sustainability transitions, such inaction is also created by the paradox of different time perspectives that can pose challenges for aligning values (Kuitert *et al.*, 2024). Put simply, what is good for the project in the short-term may not be good for the sustainability transition in the long-term. Moreover, while the grand challenge of making the sustainability transitions work in practice is complex, there is also a need to ensure that small routine changes can happen in everyday practice to take the next step in accomplishing transitions (Sele *et al.*, forthcoming). Thus, in the context of interorganisational collaboration for sustainability transitions, the concept of paradox can offer a useful lens to investigate managerial responses to these tensions - (1) the tensions of acting together whilst being apart (i.e. partner interdependence); (2) of balancing the long-term transition goal and short-term operational tasks (i.e. different time perspectives), and; (3) of engaging with the grand challenges of sustainability transitions whilst responding in the smallness of everyday routines and routine change (i.e. linking the grand/macro and the small/micro).

Research Context and Data

This study involves two living laboratories in which interorganisational collaboration has emerged (and is still emerging), including Haven-Stad (Port-City) in Amsterdam (A'dam) and the Merwe-Vierhavensgebied (M4H) area in Stadshavens (City's Port) in Rotterdam (R'dam). Both A'dam and R'dam can be viewed as the port-out-city-in and/or city-in-port-out phenomenon, where the role played by the port is declining and the city seeks a more prominent role to rethink the land use (van den Berghe *et al.*, 2023). In A'dam, following the Development Strategy of the mid 2010s, public-sector organisations have been planning to redevelop Haven-Stad into a mixed residential (of up to 70,000 houses) and commercial area while making the area future proof, climate adaptive and nature inclusive (Gemeente Amsterdam, 2021). The municipality of Amsterdam, water company WaterNet and energy grid manager Liander have created an integrated area plan (IGP) where accommodation of utility systems is linked to planning and development in the subsoil.

Unlike A'dam where the municipality took the lead in driving the development strategy of Haven-Stad with limited cooperation from the port, R'dam provided a unique case where the port and the city collaborated to redevelop the waterfront area M4H, an area that is also physically situated at the intersection of the port area and the city of Rotterdam. Both actors have realised that developing a sustainable port-city is a shared challenge that cannot be addressed individually (Jansen and Hein, 2023).

The rather unconventional cooperation between the Port Authority and the Municipality meant that traditional land-use conflicts of port-versus-city turned into a source of learning and innovation, to challenge existing sociotechnical systems, where port and urban development have conventionally been mostly separated.

Both A'dam and R'dam offer suitable contexts as living laboratories, since these entail experimentation and exploration of possibilities in addressing sustainability transitions in transforming port city areas. While living laboratories have been more established in the urban field, its application in the field of project studies and construction management is still in its infancy (Lehtimäki *et al.*, 2023). Given the uncertainties of dealing with long-term transition challenges in redeveloping these port city areas, stakeholders from heterogeneous sets of actors need to come together (Gasparro *et al.*, 2020; Vosman *et al.*, 2023), and engage in action research where both participants and researchers learn to collaborate for innovation (Yström *et al.*, 2019).

As engaged scholars, we have been involved in both living laboratories as follows. In A'dam, one of the co-authors (Edith) has actively been participating as an action researcher in developing the IGP as a system innovation to contrast traditional ways of urban area development. Together with the University of Amsterdam and the municipality of Amsterdam, she also co-developed the Leergang Systeem Innovatie (a Masterclass series on system innovation) to engender interprofessional and interorganisational learning for key actors in Haven-Stad. Furthermore, data was collected over two and a half years of action research (2021-2024) via observations during meetings and documentary analysis; organising, facilitating and observing the training course; 31 interviews with participants of the Leergang and the IGP core group including the chief urban planner, the project coordinator of the IGP, project managers, landscape architects and designers, and advisors on utility services.

In R'dam, one of the co-authors (Kees) has been a member of M4H's programme team, comprising representatives from the Port Authority and the municipality of Rotterdam, since 2019. This gave the opportunity to have many informal conversations with officials at the level of the urban area development programme. Moreover, since early 2023, he also participated in seven meetings in which the cooperation between the Port Authority and the municipality in the development of M4H was discussed. In R'dam, data was collected through observations and field notes of the setting of the meetings, the involved actors, and the critical events during programme meetings. Both official and internal documents about the collaboration between the Port Authority and the municipality in M4H were also collected. Twenty-eight semi-structured interviews with thirty-one participants were also conducted with officials who play, or played, a role in the development of Stadshavens/M4H, including responsible directors, programme managers and project managers to piece together the evolution and experiences of the collaboration.

The projects in both A'dam and R'dam have been in development for a long time, since the 1990s in Haven-Stad and the early 2000s in Stadshavens. In analysing the data gathered from A'dam and R'dam, the aim was to pay attention to how interorganisational collaboration emerged particularly in recent years when the researchers became involved as engaged scholars. By unpacking critical events that led to interorganisational collaboration, we were able to trace what happened and the reasons behind these events. We also identified three emerging paradoxes that led to and/or hindered collaboration: (1) of acting together whilst being apart, (2) of balancing long-term transition goal and short-term operational tasks, and (3) of engaging with complexity of the grand challenges of sustainability transitions whilst responding to complexity in the smallness of everyday routines and routine change.

FINDINGS

Brief tale of two port cities

It is more than symbolic that A'dam is called Haven-Stad (Port-City) and R'dam Stadshaven (City's Port). Since the 1990s, there has been a fractious relationship between the Port of Amsterdam and the municipality of Amsterdam. Due to several reasons, including growing dissatisfaction with industrial activities in the port area and the political shift towards the environmental agenda, the municipality of Amsterdam took greater control in shaping the redevelopment of Haven-Stad. By contrast, the port is central to the identity of the city of Rotterdam. In the early 2000s, both the Port of Rotterdam and the municipality of Rotterdam went into a joint venture by setting up the Ontwikkelingsmaatschappij Stadshavens Rotterdam, the Development

Company of Stadshavens Rotterdam. Due to port expansion (Maasvlakte 2) and developmental changes in port activities, the municipality of Rotterdam saw the older port areas as a real estate investment opportunity. Both visions of A'dam and R'dam were disrupted to a similar extent by the global financial crisis.

During the latter half of the 2010s, the municipality of Amsterdam indicated that there is space for between 40,000 to 70,000 houses in Haven-Stad. This has gained further political traction in recent times, given growing discontent in the availability of affordable housing in the Netherlands, one that culminated in the election results of 2023 when far right parties won a greater proportion of the votes. While the municipality of Amsterdam's intention to build up to 70,000 houses would address public demand for housing, the practical realities of servicing these houses posed significant challenges for utilities infrastructure. Fitting more water pipes and electric cables in the already-congested underground, combined with other challenges like accommodating trees, waterways, public transport and space for pedestrians and cyclists, seemed like an impossible mission. Nevertheless, this has also opened opportunities for rethinking more novel, sustainable energy and water systems.

In R'dam, despite the collaboration between the Port Authority and municipality of Rotterdam taking the form of a joint Development Company, the global financial crisis meant that the Municipality saw only one project completed, of a shopping mall with a roof garden. In recent years, discussions are still evolving as to how M4H should be redeveloped, with the Port Authority favouring an innovation district to harness the industrial heritage and build on the growing capability in innovation for energy transition, new mobility, and circular economy. On the other hand, the Municipality wanted to build more housing. The M4H programmabureau (Programme Office) was thus set up as an entity to facilitate joint experimentation and exploration of possible urban development solutions.

Paradox of identity: Being together apart

In both A'dam and R'dam, actors were constantly confronted by an identity paradox as they felt their way through in identifying or clarifying their interests in redeveloping the respective areas. In A'dam, the Municipality's vision of building up to 70,000 houses was challenged by the physical obstacle of putting in more services while also taking the ambitions on reduction of carbon emissions and climate adaptation to heart. Waternet and Liander became powerful actors in steering the discussions towards figuring out how infrastructure services can shape the building of more housing while embarking on a water-energy transition that made sense. The IGP emerged from a loose network called Koppelkansen (literally meaning the coupling of opportunities) which was set up to jointly explore possible solutions, which in turn resulted in the creation of the Leergang. In R'dam, questions were raised in the programmabureau over the visions of the Port and the City, with attempts made at finding socioeconomic transitions that can bridge between the need for housing and the need to encourage innovation and new industries. Thus, in both A'dam and R'dam, we observed how the paradox of simultaneously maintaining their own identity and scope of responsibilities (i.e. water and energy in A'dam, port and city in R'dam) and finding synergies together was a force for helping (or hindering) the driving of change.

Paradox of challenge specificity: Grand challenges and routine change

Grand challenges of the transitions were well recognised by actors in both A'dam and R'dam. Yet, we saw a notable distinction between A'dam and R'dam. In A'dam, the actors not only recognised the grand challenges of creating a sustainable urban area,

but also embraced the everyday challenges of making the water-energy transition by tackling the physical obstacle of fitting infrastructure in the busy underground. It is this consideration of the paradox of taking on the grand challenge while addressing the smallness of routine change that propelled joint actions for making tangible progress on developing the area. On the contrary, R'dam stayed on high-level considerations of socio-economic transition. Yet, without a physical form and clarity of a 'project' in R'dam, relative inertia was observed there since no connection was made between the grand challenge and everyday routines or routine change.

Paradox of temporalities: The here-and-now and the long-term transition

Both A'dam and R'dam have taken, and will likely continue to take, a long time to accomplish the sustainable transformation of the areas. Yet, here again, we found that A'dam was able to combine both visions of the long-term transition (i.e. for sustainable urban area development) and the here-and-now challenge of fitting physical infrastructure in an already congested underground that provided a meaningful space in Koppelkansen to develop joint actions. Conversely, while R'dam was able to identify the long-term challenge of making the socio-economic transition, what appears to be missing is a tangible connection with the here-and-now. Thus, it is in navigating the paradox of balancing long-term transition challenges with addressing the everyday practices and problems of the here-and-now that arguably provides a non-trivial basis to come together and collaborate.

DISCUSSION AND CONCLUSIONS

Interorganisational collaboration has been a longstanding topic of interest in construction management research. Much research focuses on how to optimise collaboration for project performance where scholars focus on identifying the factors, forms and somewhat linear process for doing collaboration with the shared goal of performance improvements in mind (Erdogan *et al.*, 2014; Saukko *et al.*, 2020; Deep *et al.*, 2021, and Daboun *et al.*, 2023). Yet, in studying how interorganisational collaboration emerges, we found that shared goals remain elusive as parties explore the spaces that offer possibilities for coming together.

In this paper, we have gone beyond project-based collaboration to take a longer-term, processual view (Berends and Sydow, 2019) by asking how interorganisational collaboration emerges in the novel and uncertain context of pursuing sustainability transitions (Gasparro *et al.*, 2022; Vosman *et al.*, 2023). Through the two living laboratories, we showed how the emergence of interorganisational collaboration can take different forms and spaces, whether this is in a joint venture Development Company in R'dam, a loose network in Koppelkansen in A'dam or latterly the Programmabureau in R'dam (see also Kokkonen and Vaagaasar, 2018). We also found that such collaborations takes time to emerge, and can go through different forms (and failures) before things happen. Thus, contrary to previous studies that tend to emphasize speed and performance, we observed the importance of taking the time and the significance of timing in understanding the shaping of collaboration.

Although aligning parties together to meet a shared goal has been the emphasis of much extant research in construction management, we found that it is the lack of a shared goal that offers immense opportunities for the emergence and creation of inter-organisational collaboration. Thus, instead of seeing fragmentation as the source of problems for interorganisational collaboration, we saw how the formation of interorganisational collaboration was triggered by the manifestation of fragmentation and this calls into question the need to embrace paradoxes. In this paper, we have

drawn attention to three key paradoxes that are crucial in the emergence of interorganisational collaboration: including the paradoxes of being together apart (identity), of finding the synergies between the here-and-now and long-term future (temporalities), and of simultaneously addressing the grand and the routine (challenge specificity). It is through these paradoxes that can drive forward deliberations and learning that make (the need for) collaboration make sense.

It is through the ongoing process of learning that actors not only get to know the values of other actors (Kuitert *et al.*, 2024), but also to figure out their own values and how these can shape what they bring as possible (joint) solutions to address the novelty and uncertainties of sustainability transitions. Exploration and adaptation are thus critical (Koch-Ørvad *et al.*, 2019), and arguably more so than the typical focus on exploitation and optimisation. We also found that artefacts matter (Parmentier-Cajaiba *et al.*, 2021). It is through the emerging challenge of fitting pipes and cables in the busy underground that gave A'dam a physical form through which the grand sustainability transition can be shaped, a form that is missing in R'dam which, we argue, could account for the relative inertia observed in R'dam.

The physical form also plays a non-trivial role in triggering learning about and innovation in routines. By raising awareness of physical bottlenecks of accommodating more pipes and cables in the congested underground, Waternet and Liander in A'dam encountered paradoxes in their everyday routines, which called for joint deliberations as they explored opportunities for learning and collaboration to facilitate their routines in laying their infrastructure. It is also through everyday routines and the ongoing deliberations on how these can change that provided the grounds for acting on the challenges of sustainability transitions. Thus, it is important that the challenge of sustainability transitions does not operate only at an abstract level of policy intent, but also find grounding in the effortful accomplishments of everyday routines (Feldman *et al.*, 2016; Sele *et al.*, forthcoming).

In closing, we have contributed in this paper to scholarship on interorganisational collaboration by shining a spotlight on how emergence of collaboration is enacted, particularly in novel and uncertain contexts associated with sustainability transitions. Rather than to focus on aligning actors with a shared goal, we highlighted how not having a shared goal can also create the space for learning to collaborate. This therefore adds to the construction management field by emphasising how paradoxes - of identity, time perspectives, and challenge specificity - can trigger collaborative endeavours. The role of the researchers is also critical in this regard. Often, studies of collaboration have been based on researchers studying actors in practice and how they collaborate. Through the living laboratories, we have played the role of engaged scholars in muddling through the emergence of interorganisational collaboration along with actors, emergent and established, as they made sense of the challenges of sustainability transitions. Thus, we hope that our role as intermediaries brokering collaborative actions (Winch and Courtney, 2007) can stimulate construction management researchers not only to study the processes of collaboration, but also become entangled in the messy realities as interorganisational collaboration emerges.

ACKNOWLEDGEMENTS

The authors acknowledge the insight of and support from the engaged actors, as well as funding provided by the Dutch Research Council for 'Stepping Out' (Grant reference 403.19.226).

REFERENCES

Berends, H and Sydow, J (2019) Introduction: Process views on inter-organisational collaborations, *In: J Sydow and H Berends, H (Eds.) Managing inter-organisational collaborations: Process views, Research in the Sociology of Organisations*, **64**, 1-10.

Bresnen, M and Marshall, N (2000) Partnering in construction: A critical review of issues, problems and dilemmas, *Construction Management and Economics*, **18**(2), 229-237.

Bygballe, L E and Ingemannsson, M (2014) The logic of innovation in construction, *Industrial Marketing Management*, **43**(3), 512-524.

Daboun, O, Md Yusof, A and Khoso, A R (2023) Relationship management in construction projects: Systematic literature review, *Engineering Management Journal*, **35**(2), 120-143.

Deep, S, Gajendran, T and Jefferies, M (2021) A systematic review of 'enablers of collaboration' among the participants in construction projects, *International Journal of Construction Management*, **21**(9), 919-931.

Deken, F, Berends, H, Gemser, G and Lauche, K (2018) Strategising and the initiation of interorganisational collaboration through prospective resourcing, *Academy of Management Journal*, **61**(5), 1920-1950.

Eikelenboom, M and van Marrewijk, A (2023) Creating points of opportunity in sustainability transitions: Reflective interventions in inter-organisational collaboration, *Environmental Innovation and Societal Transitions*, **48**, 100748.

Erdogan, B, Anumba, C J, Bouchlaghem, D and Nielsen, Y (2014) Collaboration environments for construction: Management of organisational changes, *Journal of Management in Engineering*, **30**(3), 04014002.

Feldman, M S, Pentland, B T, D'Adderio, L and Lazaric, N (2016) Beyond routines as things: Introduction to the special issue on routine dynamics, *Organisation Science*, **27**(3), 505-513.

Gasparro, K, Zerjav, V, Konstantinou, E and Casady, C B (2022) Vanguard projects as intermediation spaces in sustainability transitions, *Project Management Journal*, **53**(2), 196-210.

Gemeente Amsterdam (2021) *Haven-Stad Transformatie Van 12 Deelgebieden*, Integraal Raamwerk, vastgesteld 14 december 2021.

Hällström, A, Bosch-Sijtsema, P, Poblete, L, Rempling, R and Karlsson, M (2021) The role of social ties in collaborative project networks: A tale of two construction cases, *Construction Management and Economics*, **39**(9), 723-738.

Huxham, C and Vangen, S (2005) *Managing to Collaborate: the Theory and Practice of Collaborative Advantage*, Abingdon, UK: Routledge.

Jansen, M and Hein, C (2023) Port city symbiosis: Introduction to the special issue, *Maritime Economics and Logistics*, **25**, 1-19.

Koch-Ørvad, N, Thuesen, C, Koch, C and Berker, T (2019) Transforming ecosystems: Facilitating sustainable innovations through the lineage of exploratory projects, *Project Management Journal*, **50**(5), 602-616.

Kokkonen, A and Vaagaasar, A L (2018) Managing collaborative space in multi-partner projects, *Construction Management and Economics*, **36**(2) 83-95.

Kuitert, L, Willems, J and Volker, L (2024) Value integration in multi-functional urban projects: A value driven perspective on sustainability transitions, *Construction Management and Economics*, **42**(2), 182-198.

Lehtimäki, H, Jokinen, A and Pitkänen, J (2023) Project-based practices for promoting a sustainability transition in a city organisation and its urban context, *International Journal of Project Management*, **41**(7), 102516.

Leufkens, A S and Noorderhaven, N G (2011) Learning to collaborate in multi-organisational projects, *International Journal of Project Management*, **29**(4), 432-441.

Parmentier-Cajaiba, A, Lazaric, N and Cajaiba-Santana, G (2021) The effortful process of routines emergence: The interplay of entrepreneurial actions and artefacts, *Journal of Evolutionary Economics*, **31**, 33-63.

Pentland, B T and Rueter, H H (1994) Organisational routines as grammars of action, *Administrative Science Quarterly*, **39**(3), 484-510.

Rosander, L (2022) Same same but different: Dynamics of a pre-procurement routine and its influence on relational contracting models, *Construction Management and Economics*, **40**(11-12), 955-972.

Rutten, M E J, Doreé, A G and Halman, J I M (2009) Innovation and interorganisational cooperation: A synthesis of literature, *Construction Innovation*, **9**(3), 285-297.

Ryan-Charleton, T, Gnyawali, D R and Oliveira, N (2022) Strategic alliance outcomes: Consolidation and new directions, *Academy of Management Annals*, **16**(2), 719-758.

Saukko, L, Aaltonen, K and Haapasalo, H (2020) Inter-organisational collaboration challenges and preconditions in industrial engineering projects, *International Journal of Managing Projects in Business*, **13**(5), 999-1023.

Sele, K, Mahringer, C A, Danner-Schröder, Grisold, T and Renzl, B (forthcoming) We are all pattern makers! How a flat ontology connects organisational routines and grand challenges, *Strategic Organisation*, [in press].

Smith, W K and Lewis, M W (2011) Toward a theory of paradox: A dynamic equilibrium model of organising, *Academy of Management Review*, **36**(2), 381-403.

Stam, K, van Ewijk, E and Chan, P W (2023) How does learning drive sustainability transitions? Perspectives, problems and prospects from a systematic literature review, *Environmental Innovation and Societal Transitions*, **48**, 100734.

van Bueren, E and Broekhans, B (2013) Individual projects as portals for mainstreaming niche innovations, In: R L Henn and A J Hoffman (Eds.) *Constructing Green: the Social Structures of Sustainability*, Cambridge, Massachusetts: MIT Press, 145-168.

van den Berghe, K, Louw, E, Pliakis, F and Daamen, T (2023) When port-out-city-in becomes a strategy: Is the port-city interface conflict in Amsterdam an observation or a self-fulfilling prophecy? *Maritime Economics and Logistics*, **25**, 330-350.

van Marrewijk, A and van den Ende, L (2022) Shaping interorganisational strategic projects through power relations and strategic practices, *International Journal of Project Management*, **40**(4), 426-438.

Vosman, L, Coenen, T B J, Volker, L and Visscher, K (2023) Collaboration and innovation beyond project boundaries: Exploring the potential of an ecosystem perspective in the infrastructure sector, *Construction Management and Economics*, **41**(6), 457-474.

Winch, G M and Courtney, R (2007) The organisation of innovation brokers: An international review, *Technology Analysis and Strategic Management*, **19**(6), 747-763.

Yström, A, Ollila, S, Agogué, M and Coghlan, D (2019) The role of a learning approach in building an interorganisational network aiming for collaborative innovation, *Journal of Applied Behavioural Science*, **55**(1), 27-49.