Pia Adibe

NAVIGATING THE IN-BETWEEN: EXPLORING INDIVIDUALS' DIFFERENT MEANINGS OF CREATING SPACE FOR COLLABORATIVE INNOVATION

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Abstract

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This doctoral study was conducted as an inquiry into the process of creating space for collaborative innovation to advance understanding of how such spaces might contribute to *ecosystem emergence (EE)*. Limited attention had been paid to individuals' lived experiences and the meanings they attach to the process of creating *collaborative innovation spaces (CIS)* as they navigate the ambiguous and uncertain early phases of catalysing EE.

Grounded in a processual and relational ontology of collaborative innovation and organisational spaces, the study investigates how individuals make sense of creating CIS and the role of CIS in catalysing EE. The dissertation draws on three publications, one conceptual and two narrative inquiries. Publication I conceptualises CIS as temporary, transitional spaces of being and becoming, emphasising their relational and situated, context-dependent nature. Publication II applies the concept of liminality to a national-level data economy initiative, showing how participants navigate a state of 'not-yet-knowing' while co-constructing clarity, direction, and community. Publication III draws on paradox theory and narrative analysis to identify four distinct decision-making trajectories, revealing how individuals within a multistakeholder arrangement negotiate tensions in organising for EE. Together, these publications provide evidence that CIS and their related processes are created not only through design, but also through situated, relational, and emergent processes with significant meanings to be acknowledged. Navigating the in-between shows that creating a CIS is a transitional, tension-laden process, in which CIS can be seen as enabling in-between spaces and creating conditions for EE. Methodologically, this dissertation contributes by drawing on a microfoundations perspective to examine individual sensemaking narratives that reveal how individuals perceive, experience, and navigate the uncertain, ambiguous process of creating CIS. The dissertation also presents recommendations for policymakers, managers, and other ecosystem actors.

Keywords: collaborative innovation space, liminality, paradoxes, tensions, ecosystem emergence, collective leadership

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Pia Adibe
November 2025
Helsinki, Finland

To Daniel

'To be human is to become visible while carrying what is hidden as a gift to others.'
— David Whyte

Contents

List of publications

This dissertation is based on the following papers. The publishers have granted the rights to include the papers in the printed version of this dissertation.

I. Adibe, P. (2025). Collaborative innovation spaces as enablers of collective leadership in catalysing ecosystem emergence. In *Proceedings of the 26th European Conference on Knowledge Management (ECKM)*, 4–5 September 2025, LUT School of Business, Lahti, Finland. https://doi.org/10.34190/eckm.26.2.3674

II. Adibe, P., Vesin, S., Almpanopoulou, A., & Blomqvist, K. (2024). A threshold for collaborative innovation: exploring the dimensions of liminality in a data economy initiative. *R&D Management*, *54*(2), 300–322. https://doi.org/10.1111/radm.12585

III. Adibe, P., Almpanopoulou, A., Vesin, S., & Blomqvist, K. (2025). Tensions among decision-making trajectories in organizing for ecosystem emergence: a paradox lens. In *Proceedings of the 25th European Academy of Management (EURAM),* June 22–25, 2025, University of Florence, Florence, Italy.

Author's contribution

Pia Adibe is the sole author of Publication I. Pia Adibe is the principal investigator and the corresponding author of Publications II and III. As principal investigator and author, she played a major role in research design, data collection, and analysis, leading the paper development and writing and revising the manuscripts. As the corresponding author, she served as the primary contact with the intended publishers, considering their revision suggestions and evaluating and implementing them.

I. Pia Adibe is the sole author of the paper.

II. The paper was the authors' joint effort. The first three authors equally contributed to the positioning of the study within the extant literature, the method section, the literature review, the discussion, and the conclusions. Post-doc Satu Vesin and Pia Adibe were responsible for the research design, data analysis, and findings. Pia Adibe was responsible for collecting the data. Professor Blomqvist contributed to the final figure, participated in the writing, and acted as an advisor. Pia Adibe was the corresponding author, and all authors participated in revisions during the publication process.

III. Pia Adibe is the principal author of the paper. She was responsible for collecting data and the preliminary analysis. The first three authors—Pia Adibe and post-docs Argyro Almpanopoulou and Satu Vesin—participated equally in positioning the study within the extant literature, in the analysis, in writing the results, and in the discussion. Professor Blomqvist participated in writing and acted as an advisor and commentator. As a corresponding author, Pia Adibe was responsible for the revisions during the publication process.

Nomenclature

Abbreviations

CIS	collaborative innovation space(s)
DE	data economy
DEB	Data Economy Boardroom
DECI	data economy collaborative initiative
EE	ecosystem emergence
RQ	research question

Declarations

Turnitin

The originality of this dissertation has been reviewed using the Turnitin similarity checking service.

Commercial software

This dissertation was prepared with the help of the following commercial software:

Microsoft Excel software is provided by LUT University for researchers. The software was used to code and analyse data in *Publications* II and III.

AI use

CoPilot AI is provided by LUT University for researchers. *CoPilot AI* and *ChatGPT* were used during the preparation of Publication I and this manuscript to ideate and generate content by summarising the articles read, which were then used as references. All text in the final version is produced by Pia Adibe, the author of this dissertation, who takes full responsibility for the final publication.

Grammarly was used to check the grammar of the textual information in each publication. After using Grammarly, Pia Adibe reviewed and edited the content. She takes full responsibility for these edits concerning the publications.

1 Introduction

In the era of the Anthropocene,[1] the importance of collaboration in addressing complex systemic challenges is widely acknowledged. The Sustainable Development Goals (SDGs) defined by the United Nations (2015) highlight the connections between the environmental, social, and economic aspects of sustainable development. While technological advancement has increased connectivity and opportunities for innovation, we continue to face increasingly complex and interdependent challenges (Ferraro et al., 2015). As we approach the planet's ecological limits to material growth (Raworth, 2017; Richardson et al., 2023), societies must shift toward intangible value creation by finding scalable solutions to address these challenges (Tatarinov et al., 2023). In this transition, data and technology play an important role.

Addressing complex challenges, for instance, through data sharing, requires bringing together diverse actors from the public and private sectors to initiate multistakeholder collaboration (e.g., von Hippel, 2005; Enkel et al., 2009; Heil & Bornemann, 2018; Boorman & Jackson, 2025). Diverse actors must engage in *collaborative innovations*, such as those within ecosystems, to co-create and transform these ideas into innovative or improved solutions (Baldwin & von Hippel, 2011; Bogers et al., 2017; Yström & Agogué, 2020). However, translating this ideal into practice is far from straightforward. Challenges include, for example, the siloed structure of work within the public sector (Organisation for Economic Co-operation and Development [OECD], 2019) and companies, competition between businesses, limited awareness of ongoing projects in the field, and uncertainty about where, when, how, and with whom to collaborate.

In siloed, fragmented, and dynamic environments, spaces for sensemaking activities become crucial. As Maitlis (2005, p. 21) notes, developing and maintaining coherent understandings that sustain relationships and facilitate collective action is critical and challenging in dynamic and turbulent contexts. Facilitating cross-sector collaboration and sensemaking requires dedicated spaces for collaborative innovation that enable the meaningful exchange of ideas, knowledge, expertise, and opportunities (Miles et al., 2005; Ketchen et al., 2007). Digitalisation has created new arenas for interaction, where innovation spaces that may be virtual, digital, or even mental (Leminen et al., 2020; Ollila & Yström, 2020; Selander & Jarvenpaa, 2016), provide platforms for joint innovation and new forms of collaboration and emergence. *Collaborative innovation spaces (CIS*), such as living labs (Greve et al., 2020), innovation hubs (Kalpaka et al., 2020), makerspaces (Zakoth et al., 2024), and virtual collaboration spaces and communities, are *the context in which innovation takes place* (e.g., Leminen et al., 2024; Caccamo, 2020). Characterised by relatively informal structures, routines, and practices, CIS enable actors to navigate interorganisational politics (Caccamo, 2020; Ollila & Yström, 2021) and

[1] Paul Crutzen, Nobel Laureate, and Eugene F. Stoermer (2000) proposed that the scale and intensity of human activities have become so profound that they mark the beginning of a new geological epoch, the Anthropocene: the age of humans (in Heikkurinen et al., 2021).

initiate more sustained collaborations (Adibe et al., 2024). Thus, CIS can significantly impact and foster the early conditions under which collaboration takes shape.

In organisational literature, liminality refers to the experience of being ‘in-between’ established structures, a condition marked by ambiguity and uncertainty (Tempest & Starkey, 2004; Beech, 2011). In this study, CIS are understood as liminal—temporary, transitional spaces of being and becoming (Küpers, 2011), where actors’ relationships and interactions (Bradbury & Lichtenstein, 2000) are situated within specific contexts (Scharmer & Pomeroy, 2024). This perspective emphasises the in-betweenness of collaboration: diverse goals of multiple actors and the uncertainty and ambiguity of the conditions under which it occurs. It also highlights the temporal and unpredictable unfolding of (inter)actions in complex, often tension-laden, competing interdependencies. Despite these challenges, being and navigating the in-between has latent potential for emergence and transformation.

While current research on innovation acknowledges the challenges in initiating sustainable collaboration, it is surprising how little we know about what happens before actors engage in collaborative innovation (Garud et al., 2013; Uhl-Bien, 2021a). Although innovation scholars have advanced their research on the relationship between collaboration, innovation, and the role of space (Boutillier et al., 2020; Caccamo, 2020; Ollila & Yström, 2021; Doloreux et al., 2023), less attention has been paid to the process of creating CIS and how individuals experience this process (e.g., Yström & Agogué, 2020; Ollila & Yström, 2021).

According to Uhl-Bien (2021b), leadership today is no longer confined to formal roles. It is emergent, relational, and distributed across networks and systems of interaction. Individuals’ experiences of uncertainty, ambiguity, and agency shape these dynamics. Yet, traditional leadership models do not consider these more fluid conditions and rarely capture ‘the lived experience of navigating leadership in a complex world’ (Uhl-Bien, 2021a, p. 3). As openness and collaboration have become key drivers of competitiveness (Doloreux et al., 2023), many firms have increasingly sought to curate informal knowledge exchange and experimentation more deliberately, creating spaces and opportunities to foster these processes (Elsbach & Bechky, 2007; Moultrie et al., 2007; Lô & Diochon, 2019). Yet, *the role of CIS* in these processes remains unexplored.

A deeper understanding of how individuals construct meaning and navigate collaboration in complex and uncertain settings provides valuable insight into the relational and contextual dimensions of organising. Such knowledge can, in turn, inform more innovative approaches to leading collaboration for EE through CIS. Although previous research has identified the various characteristics of CIS, *individuals’ experiences in creating these spaces* have largely been overlooked, and empirical studies examining the process in practice remain scarce (Røhnebæk, 2020; Yström & Agogué, 2020; Klooker & Hölzle, 2024).

Inspired by this gap, the aim of this dissertation is twofold: first, to examine the role of CIS in fostering collective leadership and creating conditions that catalyse ecosystem emergence (EE) (Publication I). Second, to explore the meanings individuals assign to their experience of creating CIS (Publications II and III). The study focuses on a small group of individuals from the public and private sectors who initiated action and interaction among the data economy[2] (DE) actors by creating space for collaborative innovation. The research is particularly relevant for leaders, innovators, policymakers, and other practitioners seeking to better understand the ambiguity of human experience in developing spaces for collaborative innovation, especially in the context of EE.

Next, I introduce the conceptual underpinnings of the research context and outline the key research gaps that inform the research questions of this dissertation.

1.1 Context in ecosystem emergence

In much micro-level scholarship, context is treated primarily as background (Johns, 2006), with higher-level contexts, such as organisations, markets, or institutions, often remaining implicit or taken for granted. However, context should be central, as it emphasises not only individuals themselves but also their embedding within broader macro contexts, such as firms, organisations, institutions, and markets (Felin et al., 2015). As Hansen et al. (2025) note, context shapes everything that unfolds within a given setting, influencing both the phenomena under study and the interviews. Ignoring context risks treating data as independent and objective, rather than as purposefully and intersubjectively constructed, contingent on temporal and situational factors (Hansen et al., 2025).

The context of my research setting in this dissertation lies in EE within the Finnish DE. I focus on the *prefigurative conditions* of collaboration to examine the early phases in creating CIS to catalyse EE *before* ecosystems take shape (Figure 1). Understanding the literature on EE is therefore essential for framing and interpreting this work. In the following paragraphs, I briefly discuss EE and ecosystem leadership.

[2] The term data economy (DE) refers to the broad economic implications of a data-driven market, where data are generated, processed, and utilised through digital technologies to create economic value (European Commission, 2017; 2020; Sestino et al., 2025). Many countries are investing in data policy to foster cross-sectoral collaboration between businesses and the public sector, promoting more sustainable governance of financial data nationally and internationally.

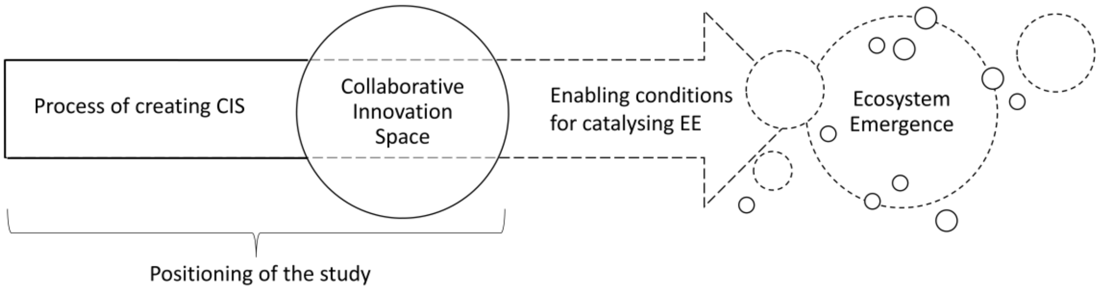

Figure 1. Creating CIS to catalyse EE

Ecosystem emergence

The ecosystem literature acknowledges that the ecosystem concept entails a processual view of ‘a collaborative arrangement of hierarchically independent yet interdependent actors that coevolve over time’ (Thomas & Ritala, 2022, cited in Wikhamn & Styhre, 2023, pp. 1–2). Yet, only a minority of studies have explored what happens before the emerging and evolving phase, that is, in the process(es) of creating conditions for EE (see e.g., Thompson et al., 2018; Fang et al., 2021; Thomas et al., 2022; Daymond et al., 2023; Shevchuk & Reuter, 2025). Ecosystems, as generally defined, are sets of interdependent and complementary actors that create knowledge, innovations, or value propositions to effectively contribute to solving various complex and urgent societal challenges (Autio et al., 2014; Järvi et al., 2018; Autio & Thomas, 2022; Ritala, 2023). In some cases, they are oriented primarily toward commercial objectives and profit maximisation (Jacobides et al., 2018).

More specifically, drilling down to the essence of what happens between organisational actors in catalysing EE, first and foremost, it concerns the collaboration outcomes of complex, collective exploration, navigation, and organising processes, where actors ‘jointly discover and negotiate the elements necessary to establish a functioning ecosystem’ (Thomas et al., 2022, p. 1). Since ecosystems often span multiple organisations and sectors, actors’ intensive engagement is required to align their diverse perspectives to create a sense of collective direction (e.g., Felin & Foss, 2023), which sets the foundation for EE. Thus, a space for these interaction processes is a prerequisite for collaboration and innovation. CIS, by definition, are characterised by relatively informal structures, routines, and practices, enabling actors to collectively navigate interorganisational politics (Caccamo, 2020; Ollila & Yström, 2021) and initiate collaboration (e.g., Adibe et al., 2024). As such, CIS offer a fertile ground for creating the conditions necessary for EE.

In later stages of emergence, legitimacy becomes critical in determining whether an ecosystem can sustain its position and continue to attract participants and resources (Thompson et al., 2018; Thomas & Ritala, 2022). Unlike traditional hierarchical organisations, ecosystems emerge and evolve through ongoing interaction and adaptation, requiring participants to align their efforts while navigating uncertainty and complex interdependencies (Thomas et al., 2022; Uhl-Bien, 2021a). Thus, the later, evolving ecosystem phases involve multiple interrelated processes, including defining ecosystem value proposition (Wareham et al., 2014), establishing governance, and accessing and mobilising resources for the ecosystem, often within a broader societal and economic context (Thomas et al., 2022).

Ecosystem leadership

In management and organisation research, leadership or the leading role in ecosystems is frequently viewed from the perspective of a central actor, such as the focal firm (e.g., Autio & Thomas, 2022; Pushpananthan & Elmqvist, 2022) that orchestrates, for example, partnerships (Linde et al., 2021), governance (Adner, 2017), and value creation and capture activities (Ritala, 2023). Recently, Foss et al. (2023, p. 2) defined ecosystem leadership based on transaction cost economics as ‘the exercise of effort and investments to influence, control and constrain other (potential) ecosystem participants with the purpose of establishing and maintaining a robust ecosystem’. Although some studies elaborate on the underlying dynamics of these ecosystem leadership processes (e.g., Dattée et al., 2018; Autio & Thomas, 2020), the microfoundations of ecosystem leadership have not yet been refined (Shevchuk & Reuter, 2025). In their systematic literature review, Shevchuk and Reuter (2025) focus on managers’ meaning-making and social interactions in the ecosystem context. The authors’ relational view of leadership responds to critiques that prior research has overlooked decentralised, collective dimensions of ecosystem leadership, and they argue that ‘ecosystem leadership extends beyond the boundaries of a single firm and encompasses social interactions among ecosystem partners’ (Shevchuk & Reuter, 2025, p. 306).

Acknowledging these discussions of ecosystem leadership in emerging and evolving ecosystems, I focus on **the preconditions for collaboration in the early phases, before EE.** These early steps are essential for fostering relational attunement and engagement. Such engagement entails, among other things, connecting with oneself, others, and world, including the situational context, space, and interorganisational realities. In this dissertation, CIS are explored as valuable contexts for the ongoing processes of individuals’ and collectives’ interaction and negotiation. Shedding light on individuals’ experiences and the meanings they assign to creating CIS helps illuminate the potential role of CIS to enable EE.

1.2 **Research gaps**

Interest in collaboration and space within innovation research has grown, and scholars have advanced understanding of collaboration, innovation, and the role of space

(Boutillier et al., 2020; Caccamo, 2020; Ollila & Yström, 2021; Doloreux et al., 2023). Yet, research on what occurs before actors engage in initiating sustainable collaboration (Garud et al., 2013; Uhl-Bien, 2021b) and how individuals experience the process of creating space for collaborative innovation (e.g., Yström & Agogué, 2020; Ollila & Yström, 2021) remains limited. Furthermore, contemporary leadership extends beyond formal roles, emerging as a relational and distributed process across networks and systems of interaction. Next, I identify research gaps addressed in publications of this dissertation.

The first research gap addressed in Publication I concerns the scarce understanding of **the role of CIS in enabling collective leadership to catalyse EE**. While collective leadership and CIS have been widely studied, the intersection between these theoretical perspectives (Barney, 2018) remains underexplored, particularly in catalysing EE. Positioning a processual, socially constructed view of EE aligns well with the concept of collective leadership, understood as a property of a social system that arises when individuals engage in collaborative thinking and action (Drath, 2001). However, the implications of CIS for collective leadership have remained largely overlooked in the EE literature. Furthermore, a conceptual overview of CIS as enablers for collective leadership in catalysing EE is missing.

The second research gap addressed in Publication II is the empirical problem of limited understanding of **how CIS are initiated and sustained**. Specifically, a gap exists in focusing on what happens before the potential of collaborative innovation. To address complex challenges through collaboration across organisational and sectoral boundaries, spaces are needed where diverse parties can come together, exchange knowledge, and engage in dialogue (Peschl & Fundneider, 2008, 2014; Tsoukas, 2009; Arena et al., 2017; Bessant, 2020). Although the concept of open innovation has attracted considerable scholarly and practical attention since the early 2000s (Chesbrough, 2003), there remains a surprising lack of understanding about what precedes actors' engagement in collaborative innovation (Garud et al., 2013; Uhl-Bien, 2021b), particularly regarding how spaces for such collaboration are created. Even after two decades of extensive research on interorganisational collaborative innovation, many initiatives fail to achieve their full potential (e.g., Caccamo, 2020). Furthermore, research on collaborative innovation has primarily focused on organisations. It has examined either the actions and strategies that focal organisations use to initiate and maintain control over such initiatives (e.g., Dattée et al., 2018) or the capabilities and knowledge that organisations develop to participate effectively (e.g., Swink, 2006). As a result, *individuals' sensemaking narratives and agency,* particularly in initiating collaborative innovation, have often been overlooked, and studies at the individual level remain relatively rare in the management and innovation literature.

Finally, *the third research gap* addressed in Publication III concerns the limited empirical **understanding of the challenges and tensions** involved in creating CIS as a multistakeholder arrangement to catalyse EE. This gap persists despite growing recognition of 'the kinds of activities and interactions' that enable or facilitate EE

(Daymond et al., 2023, p. 4). Pohle (2016) conceptualises multistakeholder arrangements in the context of internet governance as 'production sites in which heterogeneous actors engage in dynamic processes of social ordering such as shared meaning-making and coalition building'. Moreover, complementarities and interdependencies often surface between prospective ecosystem actors (e.g., Felin & Foss, 2023). As actors 'jointly discover and negotiate the elements necessary to establish a functioning ecosystem' (Thomas et al., 2022, p. 1), including elements such as governance, our understanding of how these dynamics unfold in practice remains limited (Jacobides et al., 2018; Thompson et al., 2018). Empirical knowledge is particularly scarce on how such dynamics play out in multistakeholder arrangements, where actors are highly heterogeneous, and no clear orchestrator exists. In these settings, the emergence of shared understandings—what Drori and Lavie (2024, 18) refer to as the 'meeting of the minds'—is especially complex and remains insufficiently examined. Thus, there is a need to further explore how governance and decision-making processes are collectively negotiated in diverse, multistakeholder contexts of EE.

1.3 Objectives and contributions

Building on the identified research gaps, this study aims to offer theoretical and practical insights into the role of CIS and the different meanings individuals attach to creating space for collaborative innovation to catalyse EE. Considering this aim, the research questions (RQs) posed in this dissertation are:

RQ1: *What role do CIS play in catalysing EE?*

RQ2: *What is the threshold for creating space for collaborative innovation, and how does liminality as a lens help us make sense of this threshold?*

RQ3: *How does paradox theory, as a lens, help us make sense of tensions that relate to decision-making trajectories in organising for EE?*

This dissertation comprises three publications contributing to a deeper understanding of the role of CIS (Publication I) and the meanings individuals attach to the creation of CIS (Publications II and III). **The first objective** is to develop an understanding of *the role of CIS in collective leadership and catalysing EE*. **Publication I** reviews literature on CIS, collective leadership, and EE. The key contribution of this publication is to provide a novel synthesis of spatial, relational, and processual perspectives of CIS. By conceptualising CIS as liminal spaces, the study advances understanding of leadership as a dynamic state of becoming rather than a fixed role, thereby extending research on liminality within organisations. The concept of *situational embeddedness* further illuminates how different relational and contextual conditions in CIS can enable collective leadership in catalysing EE. This publication lays the conceptual foundation for the empirical part of the research inquiry outlined in Publications II and III.

The second objective of this dissertation is to explore and deepen the understanding of the conditions of being at the threshold of collaborative innovation. **Publication II** presents the findings of an empirical, interpretative narrative inquiry (Boje, 2001) into eleven *sensemaking narratives of public-private DE actors initiating collaborative innovation*. The main contribution of this publication is to offer a three-dimensional conceptualisation of liminal space as a threshold for collaborative innovation. It highlights liminal in-betweenness as an integral condition through which individuals mentally enter and inhabit the threshold, with different meanings to the process of creating space for collaborative innovation.

Given the ambiguity and complexity of decision-making trajectories in organising for EE, **the third objective** of this study is to empirically investigate *the challenges and tensions of organising for EE*. **Publication III** employs a paradox theory lens, utilising eleven in-depth interviews with participants in a multistakeholder arrangement. The findings integrate ecosystem literature and microfoundations of paradox theory to explain the nature and meanings of the underlying tensions for the focal individuals and their governance decision-making trajectories.

In addressing these objectives, this dissertation also aims to contribute to theorising on the process of creating CIS, its different meanings and the role of CIS in catalysing EE. Accordingly, Publications I and II provide theoretical frameworks that conceptualise initiating collaboration and creating CIS through the lens of liminality, a transitional state (Garsten, 1999; Küpers, 2011; Tagliaventi, 2019) of being in-between organisations (Ollila & Yström, 2020), fundamental to enabling collaborative innovation. The framework identifies the creation as the collective navigation of a liminal, transitional threshold, into which individuals mentally enter and inhabit with different meanings to the process. Through the liminal process, an ambiguous and transitional space is transformed into a meaningful place (Tuan, 1977; Cresswell, 2014) for innovation, one characterised by shared purpose and action. The liminal threshold for collective innovation in Publication II reveals how individuals' sensemaking narratives manifest three different dimensions of liminality. Publication III builds on this, theorising the creation of CIS as a dynamic, tension-filled process involving diverse actors who navigate complex and often contradictory demands. Using the microfoundations perspective and the paradox theory lens, the developed model identifies four key decision-making trajectories that shape the evolution of CIS. Figure 2 illustrates the connection between this dissertation's RQs, research objectives and contributions of each publication outlined above.

The role of CIS in catalysing EE and individuals' different meanings of creating space for collaborative innovation

RQ1:What role do CIS play in catalysing EE?

Publication I
The role of CIS in collective leadership and catalysing EE

Contribution
Integrates and extends existing research on CIS, collective leadership, and EE by offering a novel synthesis of spatial, relational, and processual perspectives. By framing CIS as liminal, the study deepens understanding of leadership as a state of becoming, rather than a fixed role, extending research on liminality in organisations. The concept of situational embeddedness illuminates how different relational and contextual conditions in CIS can enable collective leadership in catalysing EE.

RQ2: What is the threshold for creating space for collaborative innovation, and how does liminality as a lens help us make sense of this threshold?

Publication II
Individuals' sensemaking narratives of initiating collaborative innovation

Contribution
Offers a three-dimensional conceptualisation of a liminal space as a threshold for collaborative innovation. Identifies liminal in-betweenness as a necessary state in how individuals mentally enter and inhabit a threshold for creating space for collaborative innovation, each bringing their own meanings to the process.

RQ3: How does paradox theory, as a lens, help us make sense of tensions that relate to decision-making trajectories in organising for EE?

Publication III
Challenges and tensions of organising for EE

Contribution
Integrates the ecosystem literature and microfoundations of paradox theory to explain the nature and meanings of the underlying tensions for the focal individuals and their governance decision-making trajectories in organising for EE.

Figure 2. Dissertation overview

1.4 Scope and delimitations

This dissertation investigates the process of creating space for collaborative innovation to advance understanding of how such spaces might contribute to EE. The overall scope of the study encompasses both conceptual and empirical perspectives. In particular, the dissertation focuses on individuals' lived experiences and the meanings they attach to the process of creating CIS while navigating the ambiguous and uncertain early phases of catalysing EE.

Conceptually, this dissertation contributes to the intersection between CIS and collective leadership in the context of EE. This intersection remains underexplored, although CIS provides an ideal setting for creating the conditions for EE (Thompson et al., 2018; Daymond et al., 2023). EE is understood as a process in which actors collectively discover, negotiate, and develop the structures, roles, and shared value propositions that constitute a functioning ecosystem (Autio et al., 2014; Thomas, Autio & Gann, 2022; Daymond et al., 2023). This processual and socially constructed view of EE aligns closely with the concept of collective leadership, understood as a property of a social system that arises when individuals engage in collaborative thinking and action (Drath, 2001).

Grounded in a process–relational ontology, the dissertation is theoretically anchored in a pluralistic approach to collaborative innovation and organisational space literature (Chapter 2.1), and microfoundations (Chapter 2.2). It draws on lenses of liminality (Chapter 2.3) and paradox theories (Chapter 2.4) to examine the **psychological and (inter-)organisational perspectives of navigating the uncertain, complex and ambiguous conditions of the in-between.** Paradox theory explains how organisations, teams, or individuals face ongoing tensions between elements that seem to contradict each other yet are deeply interrelated and must coexist (Smith & Lewis, 2011). The microfoundations movement in strategy and organisational theory seeks to explain macro-level outcomes by tracing them back to individual-level behaviours, decisions, routines, and capabilities (Felin et al., 2015; Barney & Felin, 2013). These theories support a richer understanding of the role of CIS and the meanings individuals have in creating space for collaborative innovation to catalyse EE.

The empirical scope of the dissertation encompasses three interrelated studies. Publication I explores conceptually how collaborative innovation spaces (CIS) enable collective leadership. Publications II and III draw on 22 in-depth and narrative interviews with Finnish DE specialists, as well as two follow-up interviews. A narrative approach was selected as the methodology to interpret the process of creating CIS and organising for EE as experienced by research participants. This approach allows the researcher to attend to participants' narratives of what is happening. The interpretative narrative approach is grounded in the view that individuals make sense of complex social processes through storytelling (Polkinghorne, 1988; Mishler, 1991). It also aligns with microfoundations research, which examines individuals' experiences, interpretations, and actions as they participate in and shape collective processes (Felin et al., 2015).

Several delimitations shape the scope of this research. The dissertation intentionally focuses on *the role of CIS and individuals' different meanings of creating space for collaborative innovation to catalyse EE*. It excludes other potentially relevant aspects to innovation space, such as boundary organisations (e.g. Guston, 2001), field-configuring events (e.g. Lampel & Meyer, 2008), innovation intermediaries (e.g. Zhang & Liu, 2024), testbeds or living labs (e.g. Greve et al., 2020), regulatory sandboxes (Chen & Taeihagh, 2025), and temporary organisations (Sydow et al., 2025). The studies presented adopt a qualitative research design and rely on a relatively small number of narrative and in-depth interviews as primary data, which limits the generalisability of the results at large. Despite this delimitation, qualitative research design allows for capturing nuanced and rich interpretive accounts of creating CIS, supported by secondary data. Moreover, the empirical analyses are delimited to a single cross-sectoral DE initiative, which may limit the transferability of the findings to other national or industrial contexts.

Additionally, the findings connect the creation of space to the collective efforts of individuals striving to lay the groundwork for potential EE. By shedding more light on the dynamics and meanings of creating space to enable EE in collaboration across sectors, this dissertation complements the extant variance-based studies on microfoundations in strategy (Palmié et al., 2023; Felin & Foss, 2023; Felin et al., 2015; Foss, 2011), collaborative innovation (e.g., Yström & Agogué, 2020; Ollila & Yström, 2021), and organisational space (e.g., Stephenson et al., 2020) literatures. Prior microfoundational work often highlights individuals as isolated, rational agents such as the 'lone inventor working tirelessly' (Palmié et al., 2023). This study, however, foregrounds the significance of individual experiences as embedded within collective processes and social dynamics. It responds directly to Palmié et al.'s (2023) calls for more research into collaborative, emergent processes in which the role of (collective) leadership and interpersonal relations supports innovation. Although interactions were not examined directly, they were part of the observations and complemented our processual understanding of the events and lived experiences in the research settings.

While acknowledging these delimitations, the dissertation advances theoretical understanding by shedding light on how under-theorised processes of collaborative innovation unfold in practice.

1.5 Dissertation structure

This dissertation consists of five chapters. The current chapter first outlines the background and the research gaps in the existing literature, followed by the research objectives and contributions. The chapter concludes by presenting the scope and limitations of this study, as well as the structure of the dissertation. Chapter 2 offers the conceptual and theoretical background. It first introduces the key literature on collaborative innovation and organisational spaces, focusing on the concept of CIS. It then elaborates on the theoretical lenses of microfoundations, liminality, and paradox theory adapted for this study. Chapter 3 details the methodological foundations underpinning the three publications included in the dissertation. Chapter 4 presents and synthesises the results of these publications. Finally, Chapter 5 concludes the study by answering the research questions that concern the empirical findings and the theoretical framework. It discusses the dissertation's contributions, outlines its theoretical and practical implications, and considers its limitations and avenues for future research.

2 Conceptual and theoretical background

In this chapter, I present the conceptual and theoretical background of my dissertation as well as the three publications on which it is based. I begin by discussing the literature on collaborative innovation, organisational space, and collective leadership, which lays the conceptual foundation for Publication I. I continue to introduce a microfoundations perspective to examine how individual-level experiences and interactions give rise to collective phenomena such as collaborative innovation and EE. Next, I introduce the notion of liminality as a lens for understanding CIS as transitional thresholds. Finally, I apply paradox theory to illuminate the tensions and contradictions that are inherent in such spaces. Together, these perspectives form the conceptual and theoretical framework that guides my study and provides the basis for developing a conceptual overview of CIS as an enabler for collective leadership in catalysing EE in Publication I and addressing research questions in Publications II and III.

2.1 Space and collective leadership in collaborative innovation

The existing literature on collaboration and innovation presents a variety of perspectives on the participation and involvement of external actors in interorganisational innovation processes. As stated by Chesbrough (2003), the notion of open innovation adopts a top-down approach, emphasising the need to integrate external distributed creativity within organisations. Conversely, the concept of 'user-driven innovation', as proposed by von Hippel (2005), can be viewed as an evolving, bottom-up process initiated by individuals and communities outside the firm's boundaries (Jeppesen & Frederiksen, 2006; West & Lakhani, 2008).

As digitalisation and the use of platform economy increase (e.g., Ferrigno et al., 2023; Ritala, 2023; Cusumano et al., 2019; Kenney & Zysman, 2016), the environment for innovation and ways in which innovations emerge have rapidly changed. *Collaborative innovation* has recently been defined as activities or processes involving multiple actors, organisations, or individuals transcending boundaries (within or across organisations) to create and develop new products, services, policies, processes, or business solutions (Ollila & Yström, 2021; Greer & Lei, 2012; Heil & Bornemann, 2018). This dynamic approach emphasises boundary-spanning activities in *collaborative spaces* characterised by relatively informal structures, routines, and practices, where stakeholders collectively navigate interorganisational politics to achieve transformative outcomes (Caccamo, 2020; Ollila & Yström, 2021). According to Caccamo (2020), these innovation spaces comprise a material (i.e., physical/digital space, objects) and a social (i.e., relationships and culture) side, whereas Capdevila (2017) has referred to localised communities as common cognitive spaces where individuals with a common interest can engage and collaborate to create innovations for their own use (Baldwin & von Hippel, 2011). This dissertation refers to these spaces as CIS (Doloreux et al., 2023). At their core, CIS, such as living labs, makerspaces, innovation hubs, virtual collaboration platforms, and communities, provide a real-life physical or virtual setting where stakeholders collaborate to co-design, develop, test, and showcase innovations such as new products, services, systems, and solutions (Leminen et al., 2012).

Recent studies have begun to explore the relationship between collaboration, innovation, and space, for example, through collaborative innovation that brings together heterogeneous actors (Furnari, 2014; Peschl & Fundneider, 2014; Ollila & Yström, 2021; Doloreux et al., 2023) and engages them 'over prolonged timespans' (Ferraro et al., 2015, p. 373). In contrast to much of the earlier research, this dissertation highlights the importance of understanding how collaborative innovation unfolds within diverse and evolving spaces and emphasises *the in-betweenness of collaboration.* Thus, the diverse goals of multiple actors, the uncertainty and ambiguity of conditions for collaboration, and the temporal, unpredictable unfolding of (inter)actions in complex, often tension-laden, competing interdependencies become central areas of examination in this study. Despite all the challenges, being in-between has latent potential for emergence and transformation. Accordingly, this study defines CIS as liminal, temporary, transitional spaces of being and becoming (Küpers, 2011), where actors' relationships and interactions (Bradbury & Lichtenstein, 2000) are deeply situated within a particular setting (Scharmer & Pomeroy, 2024). This perspective extends the theorising of in-between spaces by Yström and Agogué (2020), who conceptualise physical, cognitive, and virtual spaces between actors and organisations as sites where collaborative innovation practices take shape.

The following section explores the intertwined concepts of space and place, emphasising how *collaboration settings are not just physical or virtual but are imbued with human presence, social practices, and meaning*. It further extends this understanding to CIS, where collective leadership can emerge relationally through social interactions and shared sensemaking. Together, these concepts highlight how spaces and places are dynamic, relationally constructed, and valuable contexts for collaborative action and leadership processes.

2.1.1 From space and place to temporal becoming: relational dynamics in collaborative innovation spaces

In contrast to physical place, space can be understood as a more abstract or general concept, as it can also be social, virtual or mental (e.g., Leminen et al., 2020; Adibe et al., 2024), for example. A space becomes a place associated with individuals' meanings and activities (Tuan, 1977; Cresswell, 2014). Positively understood, *place* can be seen as 'space imbued with people, practices, objects, representations' (Gieryn, 2000, p. 465), and meaning. Both *space* and *place* are not only pre-given but also continually produced through social practices and shaped by varying, sometimes conflicting cultural logics and systems of practice. Drawing on Lefebvre's (1991, p. 117) notion that 'space is a practised place', one may also suggest the reverse, that is, that place can be understood as practised space. While existence requires space and is inherently spatial, it is always *situated*—a bodily, lived experience that occurs in *place*, or what might be called *implacement*. We may be located *in* space, but we *feel*, *interpret*, and *act in* place, which is always layered with social meaning. In this sense, places offer a range of affordances for action, making the experience of space possible and meaningful. As Küpers (2011, p. 2) observes: 'The way spaces and places are experienced, understood and organised relationally, either enable and include, or constrain and exclude, transitional possibilities and potentialities.'

In this dissertation, I approach CIS as ongoing configurations of relations that are continually enacted through interaction, practice, and meaning-making (Emirbayer, 1997; Tsoukas & Chia, 2002) rather than fixed structures or predefined entities. From this viewpoint, CIS are not merely containers for collaboration but are themselves emergent phenomena, co-constituted through the relational dynamics they enable and constrain. This conceptualisation aligns with the processual ontologies of Whitehead (1929) and Ricœur (1984), who highlight the temporal unfolding of meaning and becoming through lived experience. De Martino (2012), quoted in Picione and Lozzi (2021, p. 17), points out that 'presence implies participation as a subject to a shared context endowed by meaning'. For Whitehead (1929), every moment of lived experience is profoundly temporal, stretching backwards into its past and forwards into its future, capturing the embeddedness of 'now' within a temporal horizon.

The temporal, processual, and relational nature of CIS can be further understood through process studies of organisational space. Stephenson et al. (2020) examine how organisational spaces are not just passive backgrounds for organisational action (Hernes et al., 2006) but continuously accomplished outcomes of practices (Langley & Tsoukas, 2017). Therefore, CIS are not static environments but fluid arrangements (Gherardi, 2023) that shape and are shaped by collective action, that is, becoming with others through situated practices. Gherardi (2023) draws on Massey's (2005) concept of space as always 'under construction' to frame space as space–time in the making, where interactions between human and nonhuman actors do not simply occur within a pre-given container but actively bring space into being. In this view, space emerges from the heterogeneous and simultaneous coexistence of networks of relations, spanning scales from the local to the global. Gherardi's (2023) view of the fluidity of space highlights its continual reconfiguration through the circulation of affects, practices, and material arrangements. Her description of inviting readers 'to sense and attune to the situations' (Gherardi, 2023, p. 6) reflects the same relational and situational embeddedness that this dissertation ascribes to CIS. Both perspectives recognise that aesthetic and affective experiences are inherently subjective, meaning that the way spaces are perceived and experienced will always be shaped by the unique relationships, contexts, and emotions present in each moment. Gergen (2010) calls 'becoming-with-others' *confluence*. Using an analogy of baseball, Gergen (2010, p. 10) illustrates that what we might ordinarily regard as 'independent' elements—the man with the bat, the bases, the players in the field—are not meaningfully independent. Instead, they are all mutually defining, and only through their interrelation does the activity become recognisable as a 'baseball game': as 'all "components" of the confluence are vectoring across time, they shift their "thing-ness" along with the continuous transformation of the relational configuration' (see also Juarrero, 2023). This view concerns the evolving system of relationships (Uhl-Bien, 2006; Ospina, 2017), which serves as the backdrop for collective leadership in this dissertation.

Building on this spatial understanding, leadership is not viewed as a property of individuals or positions but as a collective and relational process that unfolds within and through such spaces of interaction. This provides the conceptual link between the theorisation of space and the emergence of collective leadership, which I outline in the next section.

2.1.2 Collective leadership

Collective leadership is enacted through social interactions that generate shared direction and meaning (Crevani et al., 2010; Denis et al., 2001, 2012; Raelin, 2016; Empson et al., 2023). In this dissertation, it is understood as a relational form of leadership that transcends individual acts and is instead a property of a social system, emerging when people engage in collaborative thinking and action (Drath, 2001; Ospina, 2017). Unlike traditional views of leadership that depend on hierarchy or followers, collective leadership emphasises the evolving system of relationships (Uhl-Bien, 2006; Ospina, 2017), shaped by how individuals relate with themselves, others, and the broader situational context or 'world' (Scharmer & Pomeroy, 2019). Here, the term *world* refers to the situational context and the interorganisational reality in which individuals are embedded. Relating with others is expressed through forming connections, building understanding, and engaging emotionally or socially. These modes of relating shape the dynamics of the group, while the individual and cultural qualities of the interaction influence broader patterns of thinking, conversing, and organising (Scharmer & Pomeroy, 2019). Thus, relating with the self and world also matters.

Leadership's relational dimensions are further reinforced when viewed as an outcome of the shared sensemaking that arises from interdependencies among organisations and their members (Ospina et al., 2012; Foldy & Ospina, 2023). Ospina (2017, p. 275) notes that this requires 'intentional work to create spaces where participants can enact their leadership for the common good'. Relational leadership extends this view by emphasising leadership's collective and situated character, focusing on how it is produced and performed in specific contexts (Crevani et al., 2007; Denis et al., 2012; Shevchuk & Reuter, 2025). From this perspective, the individual (self), the group or network (others), and the situational context (space) are all critical, as they shape the processual dynamics that unfold together in CIS. Thus, individual mindsets, including values, beliefs, worldviews, and related cognitive, emotional, and relational capacities (often termed *inner or personal dimensions*, e.g., Wamsler et al., 2020) or *conditions* (e.g., Hakio & Mattelmäki, 2023), play a pivotal role in action and interaction. According to Wamsler et al. (2020, p. 228), 'mindsets are the internal lens through which people see and navigate life'. The outer dimensions in this dissertation are broadly understood as interpersonal learning and skills, such as relating with others, seeking perspectives, and collaborating across different worldviews. These capacities support relational modes of knowing, being, and acting (Wamsler et al., 2020) with others and world. Alongside collective activities, these relational dimensions support transformational change. Thus, they matter in an ecosystem context. The centrality of such inner dimensions is also evident in social movements and initiatives such as the IDG Initiative, which promotes Inner Development Goals (IDGs) as essential to advancing the SDGs (IDG Foundation, 2023).

Scharmer and Pomeroy's (2024) conceptualisation of the *social field*, the interior dimension of a system (in this dissertation, a CIS) that encompasses collaboration, relationships, and interactions, can be seen as central to collective leadership, which is fundamentally grounded in relation(ship)s within social systems (Ospina, 2017). Such a relational system is alive and continuously engaged in processes of being and becoming through interactions and relationships (Bradbury & Lichtenstein, 2000) with oneself, others, and world. Recognising both the inner and outer dimensions of these relational experiences is therefore important for unleashing the transformational potential that CIS can enable. This insight emphasises the potential of situated encounters and the significance of presencing, that is, being fully present in the moment. Furthermore, the temporal significance of CIS is highlighted, as they enable collective presencing (Scharmer, 2001, 2007; Senge et al., 2004), allowing participants to share the context and be situationally embedded. As De Martino (2012, quoted in Picione and Lozzi (2021, p. 17), observes: 'Presence implies participation as a subject to a shared context endowed by meaning.'

While collective leadership emphasises how leadership emerges through interaction among multiple actors, the microfoundations perspective offers a lens to examine more closely the individual-level experiences and interactions through which such collective processes take shape. This dissertation adopts this perspective to explore how individuals' sensemaking, agency, and relational dynamics give rise to collective phenomena such as collaborative innovation and EE. In the following section, I therefore turn to the microfoundations literature to highlight how meaning, relationships, and individual actions shape the early conditions of collaboration within and across organisational boundaries.

2.2 Microfoundations

In recent years, the microfoundations movement in strategy and organisational theory has become a central framework for explaining macro-level outcomes by tracing them back to individual-level behaviours, decisions, routines, and capabilities (Felin et al., 2015; Barney & Felin, 2013). In its dominant form, this perspective often employs an aggregationist logic, treating stable, autonomous individuals as building blocks that, when combined, produce macro-level outcomes (Coleman, 1990). This reasoning has strongly influenced research on dynamic capabilities (Teece, 2007), innovation processes, and organisational routines (Pentland & Feldman, 2005).

According to Felin et al. (2015), a microfoundational explanation is a multilevel explanation that privileges the micro level, focusing on how causality operates both between and within levels through underlying mechanisms. It is grounded in a layered ontology, in which social reality is broadly conceived as a set of stacked layers with individuals at the foundation (Little, 1991). The concept of emergence becomes central within this framework, as it explains how micro-level actions and interactions generate macro-level phenomena. In a broad sense, emergence refers to the process by which lower-level entities are transformed into new, higher-level entities through their interactions within a specific context (Barney & Felin, 2013; Felin et al., 2015). In Coleman's (1990) famous Bathtub model (Figure 3), this emergent upward movement from micro to macro is represented by arrow 3 (Felin et al., 2015). Notably, the emergent differs from its individual components in that the latter are incommensurable, and the emergent cannot be reduced to either their sum or their difference (Blitz, 1992). Even though microfoundations often start from micro-level elements (individual behaviours, decisions, routines, etc.), emergence means that when these elements interact within a specific context, they can give rise to something qualitatively different at the macro level. Therefore, the macro-outcome is not simply the sum of the micro parts, nor a simple difference between them. In other words, the emergence of microfoundations needs to be understood in terms of transformations through interaction and relations, rather than the mere summation of individual traits.

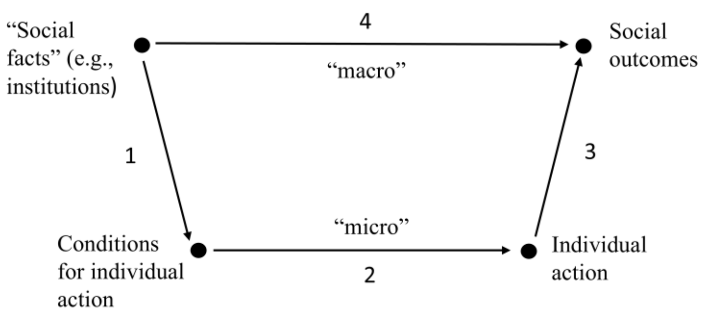

Figure 3. A general model of social science explanation. Adapted from Coleman (1990).

The aggregationist assumption that autonomous individuals serve as building blocks whose summed properties produce macro-level outcomes poses challenges for researchers interested in relational, processual, and emergent phenomena, such as those observed in ecosystems or complex sociotechnical transitions. Felin et al. (2015) acknowledge this tendency and call for broadening the scope of microfoundations research beyond merely individual attributes to tracing the concrete mechanisms and processes that connect micro and macro levels, with sensitivity to temporal and contextual dynamics.

2.2.1 **From aggregation to emergence**

Within this broader view, individuals play a pivotal role in shaping collective phenomena such as the behaviour, evolution, and performance of organisations (Felin et al., 2012), since ‘the individual is always the basic strategic factor of organisation’ (Barnard, 1938, quoted in Felin et al., 2012, p. 1352). A microfoundations perspective enables deeper insight into such micro-level phenomena (Felin et al., 2012; Barney & Felin, 2013; Miron-Spektor et al., 2018) by emphasising individuals and their interactions as central to understanding organisations and social systems and by addressing the micro–macro link—how individual-level factors aggregate into collective outcomes (Barney & Felin, 2013). Felin and Foss (2005) similarly argue that the essence of any organisation resides in its individuals, highlighting how lower-level actions shape higher-level results. For example, individual operational focus, such as human relations and business partners’ day-to-day tasks, influences collective behaviour (Bennett et al., 2024). In this light, an organisation’s performance may stem directly from employee behaviour. Foss (2011, p. 1420) likewise notes that while firms oversee and direct knowledge at the macro level, their ability to create, integrate, and disseminate knowledge ultimately depends on individuals’ ‘knowledge, preferences, beliefs, rationality, strategies, and actions’, that is, the microfoundations of organisational capability.

Microfoundations approaches often presuppose that the ‘micro’ consists of individuals whose characteristics, abilities, or cognition serve as building blocks for understanding collective phenomena (Felin et al., 2012). From this perspective, explanations of organisational phenomena ought to focus on heterogeneity, intentionality, and emergent patterns of interaction (Felin et al., 2015). Capturing such fine-grained, context-dependent dynamics often requires approaches that go beyond aggregate-level measures. Narrative explanation, therefore, can illuminate who the relevant actors are, what intentions guide them, how specific causal mechanisms unfold, and whether these mechanisms are specified formally (Abell, 2004) or informally. Focusing on actors and using their narratives keeps the underlying processes' complexity visible. Therefore, it avoids treating firm-level constructs as independent causal agents.

Furthermore, Felin et al. (2015) extend the individual-level microfoundations approach to include the cognitive and motivational bases of action and interaction. Attending to these internal drivers can deepen understanding of how heterogeneous individuals, through interdependent action and interaction, give rise to emergent organisational phenomena that capabilities and routines theories seek to explain. In this view, collective human capital is not simply the sum of individual knowledge, skills, abilities, and other characteristics. Instead, it emerges from contextually embedded social interactions shaped by task demands and enabling states (Ployhart & Hale, 2014).

While microfoundations scholarship has moved toward incorporating interactional and contextual dynamics (Felin et al., 2015; Ployhart & Hale, 2014; Foss, 2011), it could be further enriched by engaging more deeply with emergent and recursive causality. This involves shifting from the logic of aggregation to a logic of emergence, focusing not on summing individual actions but on the dynamic conditions under which new identities, relationships, and structures take shape. It also requires rethinking what counts as ‘micro’ (Ployhart & Hale, 2014). Emirbayer and Mische (1998, p. 962) view agency as ‘a temporally embedded process of social engagement’ rather than a fixed attribute and stress that it arises within dynamic relational contexts rather than existing apart from them. For example, in Publication I of this dissertation, CIS are characterised by *situational embeddedness*, whereby inner and outer conditions jointly shape outcomes. Drawing on Scharmer and Pomeroy's (2024) notion of collective context that shapes individual and group behaviour, this perspective highlights how new patterns of interaction and meaning emerge within such contexts. Here, causality is mutual and recursive: individuals shape the space even as the space simultaneously shapes them.

The use of a microfoundations perspective allows this dissertation to focus on the lived experiences and interactions through which collective phenomena, such as collaborative innovation and EE, take shape. Rather than treating ecosystems or leadership as abstract or purely structural constructs, the microfoundations approach enables the examination of **how individual actions, sensemaking, and relationships contribute to emergent collective outcomes**. This perspective is particularly suited to studying CIS, where diverse actors jointly create and negotiate meaning under conditions of uncertainty. By grounding analysis in the micro-level processes that underpin emergence, the study connects individual experience to broader patterns of organising and transformation.

In summary, although this dissertation shares a microfoundational concern with individual-level processes, it departs from reductionist, aggregationist, and mechanistic logics by adopting a relational process perspective in which individuals, meanings, and structures co-emerge through situated interaction (Emirbayer, 1997; Tsoukas & Chia, 2002). Building on this perspective advances understanding of the contextual and relational dynamics of the micro. This approach also aligns with the narrative methodology adopted in the study, as narratives are particularly well-suited to capturing the temporal and contextual unfolding of meaning and action, providing empirical access to how individuals' experiences, interpretations, and relationships co-constitute the systems in which they are embedded.

Next, I turn to the concept of liminality as a lens for examining the nature and dynamics of in-between spaces. In the following section, I outline how CIS functions as a transitional arena in which individual experiences and interactions give rise to collective outcomes.

2.3 Liminality

The concept of the *liminal* originates from the Latin word *limen*, meaning threshold. As developed in the anthropological tradition by Arnold van Gennep (1909) and expanded by Victor Turner (1974), liminal spaces are transitional zones, both literal and symbolic, that exist between states, identities, or conditions. These are spaces of in-betweenness that resist fixed classification. Turner (1979) famously described liminality as a state of ambiguity and potentiality, marking the passage between a previous identity and a new one during rites of passage, which is a transitional state of becoming.

Turner (1974) also introduced the concept of the *liminoid*, a liminal derivative that describes similar transitional zones but within secular, individualised, or leisure contexts. While liminal spaces are often collective and culturally regulated (such as rituals or initiations), liminoid spaces are more elective and personal, often found in the arts, sports, or popular culture.

Beyond its anthropological origins, the notion of liminality has been extended into the psychological and organisational domains to capture how individuals experience and make sense of transitions and uncertainty in contemporary contexts. In the following section, I explore liminality as a psychological state shaped by the creation of borders.

2.3.1 Liminality as psychological borders

Picione and Lozzi (2021) have explored uncertainty as a fundamental and inescapable element of the human experience. They (ibid.) argue that it is both a natural condition and a disruptive event that provokes crises in identity, meaning, and social relations, demanding active sensemaking to restore order and predictability. This conceptualisation emphasises the importance of narrative approaches for exploring human experience and sensemaking in the early phases of collaborations, when there is no certainty of negotiable elements.

Picione and Valsiner (2017) explore the semiotic functions of psychological borders that shape the flow of narrative processes, showing how every act of narration is a *contextual, situated, and contingent process of sensemaking*, enabled by the creation of borders. With the concepts of borders and liminality, the authors expand the dynamic perspective on the psychological dimensions of narrative processes (Picione & Valsiner, 2017). Liminality involves temporal, spatial, normative, and subjective functions of borders (Marsico, 2016; Marsico et al., 2013, quoted in Picione & Valsiner, 2017). While borders are often seen as markers of enclosed spaces, they can also be understood more abstractly as distinctions drawn within a continuous field, whether that field is spatial, temporal, or one that involves differentiating the Self from the non-Self (‘the Other’), see Figure 4.

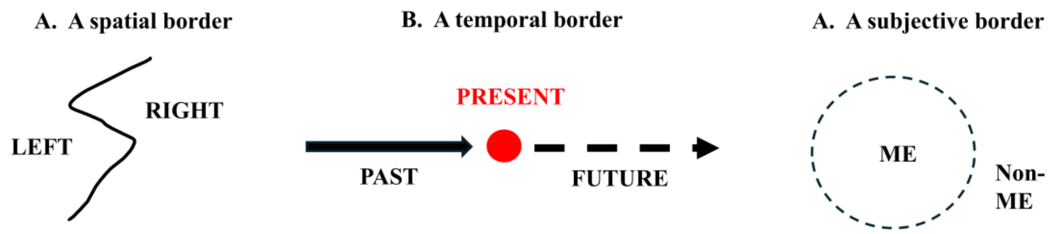

Figure 4. Making distinctions as a creation of borders. Adapted and modified from Picione and Valsiner (2017).

Picione and Valsiner (2017) argue that liminal spaces, which they term *semiotic borders*, generate psychological conditions marked by ambiguity, instability, and the potential for change. These transitional spaces are charged with affect and meaning, where the individual navigates boundaries between past and future, self and other (me and non-me), and inside and outside. The passage through liminality is both risky and generative: it opens the psyche to uncertainty but also to new narratives and imaginative reconfigurations (Picione & Valsiner, 2017). While the notion of the border typically evokes ideas of separation, definition, and the demarcation of distinct entities, its other side lies precisely in its capacity to create connections, enabling relationships, networks, comparison, exchange, and dialogue (De Luca Picione & Freda, 2016b; Freda & De Luca Picione, 2014; Lotman, 2005; Valsiner, 2014, in Picione & Valsiner, 2017).

While the psychological perspective highlights the inner dynamics of navigating uncertainty, liminality also manifests socially and spatially within organisational life. In the following section, I elaborate on the in-between spaces where these psychological and relational processes take collective and material form.

2.3.2 **In-between spaces**

According to Söderlund and Borg (2018), liminal spaces emerge when individuals temporarily come together to share space and reflect on their roles within or outside formal organisational settings. These spaces often resemble 'third places', outside of home and workplace (Oldenburg, 1989), where everyday life's routines and norms do not govern as usual, allowing activities to unfold more flexibly. Within such contexts, actors can suspend or renegotiate their professional roles and responsibilities (Söderlund & Borg, 2018) to make room for transformation and redefinition. Doing so creates opportunities to perceive and experience the space differently, enabling novel combinations and creative solutions to enhance collaborative innovation.

In the organisational literature, liminality is often understood as a state of being 'in-between', at the margins of established structures, capturing the ambiguity and uncertainty individuals may experience in such transitional positions (Tempest & Starkey, 2004; Beech, 2011). In their study of collaborative innovation practices, Yström and Agogué (2020) introduced the concept of *in-between spaces* as physical, cognitive, and virtual spaces between actors and organisations. Described as 'relational spaces of becoming', these spaces embrace ambiguity and disorder and are brought into being through social relationships (Ollila & Yström, 2025, p. 2). Particularly noteworthy are the dynamics that shape these recursive spaces 'between actors created by and simultaneously creating social interaction' (Yström & Agogué, 2020, p. 140).

These in-between spaces illustrate how liminality is experienced and enacted within organisational life. In the next section, I further develop this view by examining what it means to be in a transitional or liminal state and how individuals experience and navigate such conditions in practice.

2.3.3 Being in-between/transitional space

Scholars in management and organisation studies have used the concept of liminality to explain the experiences of some employees better (Sturdy et al., 2006; Sturdy et al., 2009), particularly in contexts marked by ambiguity and uncertainty. These include, for example, situations in which individuals enter a new interorganisational collaboration with little information about the scope of the problem. Liminality draws attention to the transitory nature of these experiences; being, or remaining, in an in-between state—betwixt and between (Czarniawska & Mazza, 2003; Garsten, 1999; Howard-Grenville et al., 2011; Tempest & Starkey, 2004). Picione and Lozzi (2021, p. 18) further explain that 'the subjective and social time of uncertainty is the transitory condition between the past and the new order'. Notably, our temporal capacity for creative encounters and collaboration may be constrained by advanced technologies, as our subjective inner time and shared social time become diminished (Jarvenpaa & Välikangas, 2020). For Jarvenpaa and Välikangas (2020, p. 566), the expression 'inner time' refers to the 'temporal capacity to reflect on actions, meaning, and consequences over time'. Social time, in turn, refers to the time spent with others, which is essential for cultivating the exchange of diverse ideas and perspectives (Jarvenpaa & Välikangas, 2020). Thus, creating space for both inner and social time is vital for fostering collaborative and creative innovation.

In this light, liminal spaces function as transitional thresholds where actors are 'on the precipice of something new but not quite there yet', embracing intense periods of development and learning (Adibe et al., 2024, p. 4). These thresholds are not only physical or virtual, but also psychological and social states in which participants suspend or renegotiate their roles (Söderlund & Borg, 2018), enabling fresh perspectives and creative combinations. The ambiguity of being 'betwixt and between' may be unsettling, yet it also opens opportunities for alternative social forms (Söderlund & Borg, 2018, p. 880), collective sensemaking, and defining shared purpose (Adibe et al., 2024).

Küpers (2011, p. 46) extends this view by describing liminal transitions as 'practical moves through transitional times and spaces'. Crossing thresholds involves moments of suspension (Söderlund & Borg, 2018) and reorientation, as a dancer finds balance through falling and re-arising, where uncertainty becomes a condition for creativity and transformation (Küpers, 2011). Such transitional spaces allow reflection, play, and experimentation, giving rise to new identities, practices, and possibilities (Küpers, 2011).

Thus, navigating transitional spaces means engaging productively with ambiguity, balancing the discomfort of indeterminacy with its potential to generate novelty. For collaborative innovation, this implies cultivating environments where participants can tolerate uncertainty, hold open multiple futures, and gradually stabilise shared meanings and practices. In doing so, liminal thresholds become not only sites of passage but also of creativity (Beyes & Michels, 2011; Küpers, 2011), enabling the emergence of collaborative action and new systemic arrangements.

I further develop this understanding of liminal thresholds by drawing on Michel Foucault's concept of *heterotopia*, which provides a spatial lens for examining how alternative realities and creative practices emerge within and alongside existing structures.

Heterotopia

Liminal spaces also strongly resemble Michel Foucault's (1984) concept of heterotopia, which is conceptualised as 'the actualised other space' (Hjorth, 2005, p. 392). Foucault (1998, quoted in Johnson, 2013, p. 794) emphasises that we inhabit an 'ensemble of relations', a thoroughly heterogeneous space rather than a fixed, bounded whole. Broadly, heterotopias are real places that juxtapose multiple, often incompatible, social meanings and functions within a single site while reflecting or contesting other spaces (Johnson, 2013). In their play, children often create space for themselves within the place we have assigned to them. In the familiar settings of a home, even the space beneath a dinner table, they may create an imaginative space for (serious) play and subtle resistance (Hjorth, 2005).

Heterotopia is not simply another term for liminality. Instead, it shares with liminal spaces an emphasis on embracing multiplicity, creativity, and play (Hjorth, 2005), all of which are needed in experimentation and invention (Beyes & Michels, 2011). While liminality refers to a transitional condition or state 'in between', heterotopia manifests such in-betweenness in some concrete, situated form (Hjorth, 2005). Like other spaces, heterotopias withdraw from the dominant order and the demands of the present. Therefore, creating temporary spaces for imagination, invention, and everyday acts of creativity (Hjorth, 2005). As such, heterotopias are spaces of layered meaning, and thus they function like liminal spaces: bounded, yet open to the unexpected. A CIS, often as both a liminal and a heterotopic space, suspends ordinary reality and opens a space of experimentation where world can be reimagined.

According to Liggett (2003, quoted in Beyes & Michels, 2011, p. 522), a spatial heuristic can account for the simultaneous multiplicity, internal contradictions, and transformative potential inherent in the production of space. It is centred on 'the play between the desire for order and the need to reach what escapes it'. Both liminality and heterotopia emphasise the creative and transformative potential of in-between spaces, yet they also reveal the tensions inherent in such contexts. In the next section, I build on this tension-laden perspective and turn to *paradox theory* to illuminate the contradictory dynamics in processes of organising and transformation.

2.4 Paradox theory and agency

Smith and Lewis (2011, p. 382) define paradoxes as 'contradictory yet interrelated elements that exist simultaneously and persist over time'. These tensions appear in competing yet interdependent demands, such as stability and change, exploration and exploitation, or the individual and the collective (Cunha et al., 2023; Schad et al., 2016).

Individuals often experience these contradictions as frustration, uncertainty, or paralysis (Putnam et al., 2016). However, paradoxes can also be productive, sparking creativity and renewal (Smith & Lewis, 2011).

How individuals interpret tensions is key to their agency in uncertain contexts. Either/or reasoning frames contradictions as mutually exclusive, requiring choice (Farjoun, 2010; Gaim & Wåhlin, 2016; Janssens & Steyaert, 1999), whereas both/and thinking recognises opposites as interdependent (Putnam et al., 2016; Graetz & Smith, 2008). Still, tensions persist and reappear, demanding continual navigation (Lewis & Smith, 2022, 2023). Not all paradoxes are 'absurd and irrational' (Lewis, 2000, p. 760); they often reflect lived organisational realities, such as balancing short- and long-term goals. Importantly, distinguishing their nature matters: some paradoxes can be generative, others paralysing (Cunha et al., 2023; Berti & Simpson, 2021). For example, a *generative paradox* might occur when a leader both sets ambitious goals and provides support, allowing the tension between challenge and care to foster creativity and resilience. In contrast, a *paralysing paradox* might arise when employees are told to be innovative but also warned that failure is not an option. This creates a no-win situation that hampers experimentation and induces fear (Cunha et al., 2023.)

Developing a more nuanced understanding of opposites requires both critical self-reflection and social reflection. Such reflection enables actors to reframe their assumptions, learn from existing tensions, and expand their understandings and behaviours to capture better organisational complexity (e.g., Denison et al., 1995; Quinn et al., 1994). This kind of reframing represents a significant shift in meaning, as paradoxical tensions come to be seen not as irreconcilable contradictions but as complementary and interwoven.

The agency also depends on the mindset. A *paradox mindset* (Miron-Spektor et al., 2018) enables individuals and leaders to value contradictions and integrate competing demands. Paradox-savvy leaders enact both/and behaviours (Zhang et al., 2015), foster innovation (Wei et al., 2023) and help actors navigate systemic uncertainty (Smith & Lewis, 2011; Waldman & Bowen, 2016). However, assuming that balance-seeking both/and strategies will always work can limit options and even lead to unintended outcomes (Cunha & Putnam, 2019; Gaim et al., 2021; Ungureanu et al., 2018).

As paradoxes are inherent to organising (Smith & Lewis, 2011; Berti & Cunha, 2023), they permeate multiple levels of organisational life (Clegg et al., 2002; Jarzabkowski & Lê, 2017). In EE, they may surface when actors negotiate essential elements of organising and resource allocation (Huber et al., 1993). Paradox theory thus provides a lens for understanding how individuals exercise agency and navigate uncertainty, recognising contradictions as both constraints and openings for creative action (Lewis, 2000).

Systemic wicked problems and paradoxes illustrate how the diversity of goals compounds the challenge of defining a problem, as each participant frames both the problem and its potential solution through their own context, framework, and systemic field (Termeer &

Dewulf, 2018; Lundström et al., 2023). When everyone interprets and attempts to solve a problem from their own viewpoint, none of the solutions are strictly right or wrong—they can be both good and bad simultaneously. In such cases, the key issue becomes whose perspective is emphasised or through which conceptualisations the problem is addressed. To achieve a solution that best serves the whole, one often must settle for a 'good enough' solution and/or proceed through small steps (Termeer & Dewulf, 2018; Lundström et al., 2023).

Prigogine (2000, p. 36) reminds us that systems under pressure often reach points of instability, where a single trajectory breaks into 'a multiplicity of new trajectories'. Such bifurcations illustrate how paradoxical tensions, when amplified, can destabilise established paths and open alternative futures. Building on Prigogine's (2000) insight, Emirbayer and Mische (1998, p. 971) emphasise the 'practical-evaluative element' of agency: 'the capacity of actors to make practical and normative judgments among alternative possible trajectories in response to emergent dilemmas and ambiguities of presently evolving situations'. Schutz (1962, 1967) develops this idea by describing 'projecting' as the basic unit of action, in which the meaning of an act lies in the outcome the actor envisions completing in the future. For Schutz (1962), purposeful action is not a simple calculation of means and ends but an imaginative orientation toward multiple possible futures. Thus, agency in contexts of paradox and uncertainty is shaped by how actors project, revise, and enact possibilities within fluid and shifting constraints. This perspective underscores the relevance of paradox theory for this dissertation: it illuminates how individuals and groups navigate the tensions inherent in CIS.

2.5 Summary of the research literature

To summarise, in this chapter, I have outlined the conceptual and theoretical foundations of the dissertation for answering the research questions.

First, I described *CIS* as the settings where relational processes unfold, highlighting their spatial, temporal, and social dimensions, as well as their role in enabling *collective leadership*. Second, I discussed *microfoundations* as a means of understanding the micro, such as individuals' meanings of creating CIS. Third, with the *concept of liminality,* I provided a lens for understanding how CIS can function as transitional thresholds that suspend routines and open possibilities for experimentation, transformation, and new forms of organising. Finally, I employed *paradox theory* as a lens to examine the tensions inherent in these spaces, demonstrating how contradictions can both constrain and generate creativity, agency, and change. Figure 5 illustrates how these literatures and theoretical lenses are connected to the research objectives of each publication in this dissertation.

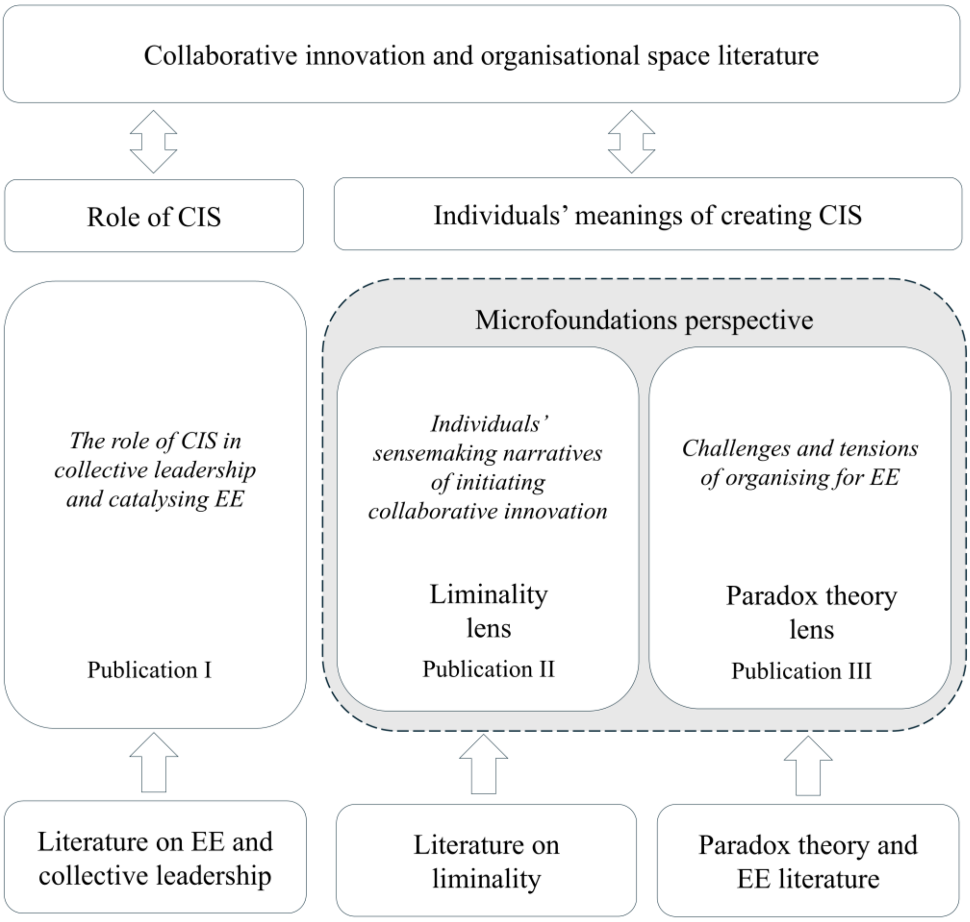

Figure 5. Research literature and theories connected to the research objectives of each publication in this dissertation

Each of the three publications has different objectives to address research questions. Building on the conceptualisation of CIS as liminal—temporary, transitional spaces of being and becoming, Publication I provides the conceptual foundation for the dissertation. It theorises CIS as relational and processual arenas that enable collective leadership in creating the early conditions for EE. This establishes how CIS can function as enablers of collaboration and leadership across boundaries.

Publication II turns to the lived experiences of individuals involved in creating such spaces. Through a narrative inquiry of public–private DE actors, it explains what kinds of meanings individuals attach to the creation of CIS and how liminality as lens serves as a threshold for collaborative innovation.

Publication III extends this understanding by examining the tensions and paradoxes that arise when organising for EE in multistakeholder settings. Adopting microfoundations of paradox theory as a lens, it shows how individuals navigate competing demands in the process of creating and sustaining CIS. It further illuminates the nature and meanings of the underlying tensions for the focal individuals and their governance decision-making trajectories in organising for EE. Together, the three publications explore the core phenomena from conceptual framing of CIS's role (Publication I) to individual sensemaking narratives (Publication II) and tension-laden organising (Publication III). As a whole, they deepen our understanding of CIS's role in collective leadership and catalysing EE, and the different meanings individuals attach to CIS creation.

In the next chapter, I build on these foundations by outlining the research design and methodological approach adopted in this dissertation.

3 Research design

This chapter details the research design of this dissertation. First, I introduce the research paradigm and philosophical positioning to justify the research design. Second, I explain the methodological approach and research setting of this study. Third, I outline the data collection (Table 1), and elaborate on the chosen methodological choices in detail, focusing on Publications II and III and their analysis, which are empirical studies (Table 2). Fourth, I address the research gaps. Finally, I conclude with a discussion of the quality of my research, providing Table 3 to describe how the dissertation and its publications ensured research quality (Lincoln & Guba, 1985, 1986; Polkinghorne, 2007) and trustworthiness.

3.1 Research paradigm and philosophical positioning

According to Denzin and Lincoln (2000, p. 21), the 'researcher approaches the world with a set of ideas, a framework (theory, ontology) that specifies a set of questions (epistemology) that he or she then examines in specific ways (methodology, analysis)'.

Defining the research paradigm clarifies the philosophical assumptions that underpin the entire research process, ensuring consistency between the researcher's worldview and methodological choices. It enables readers to understand the ontological and epistemological positioning of the study, justifies the chosen methods, and strengthens the trustworthiness and credibility of qualitative research (Guba & Lincoln, 1994; Denzin & Lincoln, 2000).

Common research paradigms can be positioned along a continuum ranging from *positivism* via critical realism to *interpretivism*. In contrast to the rationale guiding this doctoral study, the dominant positivist ontology assumes that reality is objective, external, and independent of human perception—that is, that a single, observable truth exists (Hudson & Ozanne, 1988). This view recognises a 'real' world primarily through its concrete structures, such as the material and organic realms, to which humans are seen as responding or adapting (Guba & Lincoln, 1994; Morgan & Smircich, 1980). Positivist research is primarily oriented toward the explanation and generalisation of phenomena, aiming to enable prediction and control, often through quantitative methodologies (Guba & Lincoln, 1994). In contrast, interpretivist research seeks to develop a deep understanding of how people construct meaning within specific contexts. Unlike positivism and interpretivism, critical realism, situated in the middle of the continuum, recognises both the existence of an objective natural world and the changing nature of its concepts (Gorski, 2013). The philosophical positioning of this dissertation is at the interpretivist end of the continuum illustrated in Figure 6. The dissertation adopts an interpretivist philosophical position along the positivism–interpretivism continuum, with critical realism occupying a middle ground.

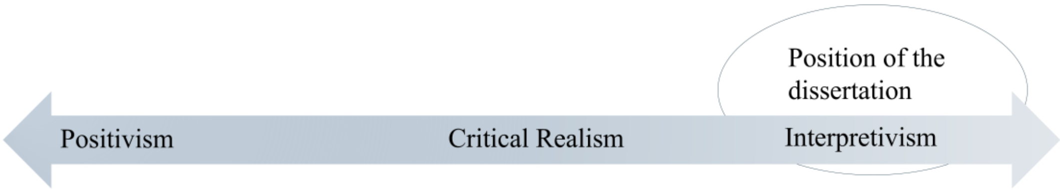

Figure 6. Philosophical position of the dissertation on the positivism–interpretivism continuum

This dissertation is grounded in the narrative, interpretivist paradigm, which assumes that reality is socially constructed (Berger & Luckmann, 1966), subjective, and shaped by human experience and interaction (Guba & Lincoln, 1994). Rather than seeking objective truths or causal relationships, narrative inquiry is concerned with understanding, interpreting, and making sense of the meanings and interpretations individuals assign to their experiences. According to the narrative paradigm (Fisher, 1984), individuals make sense of their world not through abstract logic alone, but through storytelling and interpretive engagement with experience (Bruner, 1986; Polkinghorne, 1988). This implies that our understanding of human existence unfolds temporally and meaningfully through narrative (Ricœur, 1984; Meretoja, 2014) and that knowledge arises from the narration of lived experience (Bruner, 1986a, 1986b; Polkinghorne, 1988). Consequently, the experience of creating spaces for collaborative innovation in catalysing EE is best understood as narrative constructions that organise meaning and action within specific sociocultural contexts (Czarniawska, 2004).

3.1.1 **Ontological perspective**

Ontology is understood as the nature of reality (Creswell, 2007; Guba & Lincoln, 1994), the science of being. At the ontological level, this dissertation adopts *a process–relational ontology.* Although Publications II–III do not explicitly reflect this ontological view, the underlying view has guided my research for this dissertation.

Research paradigms can be perceived as ranging from *static ontology*, where reality is seen as fixed, stable, and objectively knowable, to *dynamic ontology*, which emphasises emergence, process, and constant becoming (Guba & Lincoln, 1994; Chia, 1995; Tsoukas & Chia, 2002). Relational ontology sits in the middle of this static–dynamic range, rejecting the static conception of isolated entities and the purely fluid notion of reality without structure. Instead, it asserts that entities do not pre-exist with their relationships but are constituted through them (Emirbayer, 1997). Moving toward the *interpretivist* end of the spectrum (Figure 6), this dissertation embodies a process–relational and dynamic understanding of reality, where meaning is not discovered but constructed through lived experience and social interaction (Bruner, 1991; Riessman, 2008). Here, interpretivism emphasises subjectivity, context, and temporality, framing knowledge as situated and emergent (Geertz, 1973; Schwandt, 1994).

A process–relational ontology directs attention to processes and relationships rather than objects or entities as the fundamental constituents of reality (Whitehead, 1929; Rescher, 1996; Emirbayer, 1997; Hosking, 2011). Building on process philosophy since Heraclitus (approx. 500 BC) and his famous phrase 'everything flows', it adopts the position that relations are inherently dynamic and unfolding. From this relational process approach, reality is conceived as a continuously evolving web of entangled, mutually dependent relations and relational entities, within which the components are 'constructed and transformed by the interplay of its intrinsic and extrinsic relational processes' (Santos, 2015, p. 439). The roots of relational ontology hold that an entity's existence and identity are shaped by its relations with others, in contrast to substantivist ontology, which sees entities as primary and relationships as secondary (Emirbayer, 1997). For instance, a person is understood not as a separate individual but through their connections with family, friends, colleagues, society, and environment (Emirbayer, 1997; Cunliffe, 2008).

A process–relational ontology provides a foundation for understanding social reality as constituted through human agency, meaning-making, and socio-material entanglements. In this dissertation, this processual understanding of relationality is emergent and co-constituted through mutual and recursive dynamics, where individuals shape the space even as the space simultaneously shapes them. Rather than existing as stable entities, CIS can be experienced as liminal, transitional in-between spaces that unfold through interaction, relation(ship)s, and shared sensemaking.

Time and temporality

Although this study adopts an interpretative narrative approach rather than a process research methodology per se, it is nonetheless grounded in a process–relational ontology. Process theories, understood as stories, function as abstract conceptual models (Czarniawska, 1998; Pentland, 1999; Van de Ven & Poole, 2005) that identify the generative mechanisms operating beneath surface-level observations. Narratives provide a means of understanding how people reconstruct their experiences, make sense of them at a particular moment in time, and attach meanings to articulated events (Fachin & Langley, 2018). Langley argues (1999, p. 695) that 'some strategies seem best adapted to the detection of patterns in processes, whereas others penetrate their driving mechanisms. Some are more oriented toward the meaning of process for the people involved, whereas some are more concerned with prediction'. As my study aims to uncover the meaning of the process for the people involved, the temporal and contextual aspects are essential to consider methodologically and theoretically (Langley, 1999).

In many Western cultures, time is often perceived through a linear lens, measured, determinate, and progressing along the axis of clock time (Ancona et al., 2001). Hurmerinta et al. (2016) propose a hermeneutic approach that views time as a horizontally and vertically contextualised environment (Pettigrew, 1990). They argue that this spiralling perspective highlights the experiential nature of events and actions, which unfold interactively and iteratively. Interrelated and contextually embedded, events and actions do not occur in isolation but continually affect one another.

In this view, the present mode of time has an active nature in shaping processes as actions, and events are iteratively modified through interpretations of both the past and the future. Such non-linear conceptions of time acknowledge its complexity, unpredictability, and changeability rather than reducing it to fixed orders and sequences (Hurmerinta et al., 2016). This processual perspective opens up room for spaciousness and new emerging potentialities. From a hermeneutic standpoint, the past and future coexist in the present: past experiences are actively recalled, reinterpreted, and referred to (Hurmerinta et al., 2016), while expectations of the future shape the dynamics of meaning construction (Konlechner et al., 2019) and influence present choices (Polak & Boulding, 1973).

This dissertation defines time as an ontological entity, a continuous flow of present moments, nows, and spiralling through transitional spaces as a hermeneutic approach (Hurmerinta et al., 2016). Thus, the situational embeddedness in presencing (Scharmer, 2001; Senge et al., 2004)—the shared 'now' moment within CIS with other collaborators—is essential. In this dissertation, situated agency and presence are viewed as temporally embedded processes of social engagement (Emirbayer & Mische, 1998), which open possibilities for creativity and playful making in the present moment, that is, navigating through transitional space. Doing so involves engaging in the interaction between being and becoming—dancing (Küpers, 2011)—with everything (past–present–future) and nothing (the present as neither past nor future) together with others. Ultimately, creating space and time for collaborative creative innovation requires recognising the value, meaning, and potential of the present moment's active nature (Hurmerinta et al., 2016) and committing to collaborative, creative action with others.

3.1.2 **Epistemological perspective**

Epistemology refers to the theory of knowledge and seeks an answer to the relationship between the inquirer and the known (Guba & Lincoln, 1994; Denzin & Lincoln, 2000). Epistemologically, this research takes an *interpretive approach*, which assumes that knowledge is socially constructed, contextually situated, and generated through human meaning-making processes (Lincoln & Guba, 1985; Schwartz-Shea & Yanow, 2012). Knowledge is produced through the interpretive acts of sensemaking and storytelling, whereby individuals construct narratives by making sense of their experiences and actions (Bruner, 1986; Polkinghorne, 1988). Narratives are not merely representations of reality but active processes through which individuals organise experience, assign meaning, and negotiate complexity (Czarniawska, 2004; Riessman, 2008). Consequently, the meanings individuals attribute to processes of creating spaces (Taylor & Spicer, 2007; Ropo & Höykinpuro, 2017) and organising (Weick, 1995; Tsoukas & Chia, 2002; Weick et al., 2005; Langley & Tsoukas, 2010) are best accessed and understood through the narratives they construct. Such narratives reflect individuals' positions, emotions, and interpretations in dynamic, relational settings (Somers, 1994; Emirbayer & Mische, 1998). For example, Langley and Tsoukas (2010, p. 16) frame organising as a meaning-making process, enacted through sensemaking and narrative, emphasising its temporal, dialogic, and interpretive dimensions: 'If we adopt a process view, then sensemaking becomes not merely a response to breakdowns but a continuous flow of interpretive activity through which the social world is enacted.' In a similar vein, the concept of a narrative identity (Somers, 1994) sees narrativity and relationality as fundamental conditions of social being, action, and institutions. Here, the self is continually constructed through shifting relations of time, place, and power. Social identities are shaped through narrative; social action is guided by it; and both institutional and interpersonal interactions are narratively mediated, making sense of how certain identities recur without being universal (Somers, 1994).

In the following sections, I outline the methodological approach of this dissertation, providing further clarification of the research design.

3.2 Research methods

In this section, I present the methodological foundations of the study. First, I introduce the narrative approach. Second, I describe the empirical and temporal settings. Third, I describe the data collection process (Table 1) in Publications II and III, which are empirical studies that form part of the same larger research project. Fourth, I elaborate on the methodological choices made in this dissertation, with particular focus on the analytical procedures in Publications II and III (summarised in Table 2). Finally, I briefly outline the rationale and methodological approaches applied across Publications I–III to address the identified research gaps.

3.2.1 Narrative approach

Methodology encompasses the theoretical and philosophical underpinnings that guide how research is designed, data are collected and analysed, and findings are interpreted (Creswell, 2007). Therefore, it is important to understand the reasoning behind methodological choices. Methodologically, this dissertation adopts *a narrative approach* (Clandinin & Connelly, 2000; Polkinghorne, 1988), as this approach enables the researcher to attend to the narration of what is happening and, ultimately, to interpret and understand more of the process of creating CIS and organising for EE as experienced by the research participants. The narrative approach is grounded in the understanding that individuals make sense of complex social processes through storytelling, which captures not only actions and events but also the shifting identities, values, and meanings that arise in relational contexts (Polkinghorne, 1988; Mishler, 1991). Thus, the narrative approach is a well-suited methodological choice for addressing the research questions in empirical studies of Publication II and III. It also aligns with microfoundations research, focusing on individuals' experiences, interpretations, and actions as they participate in and shape collective processes (Felin et al., 2015).

In line with the narrative approach of this dissertation, the main interest has been to recognise the meaning of the individual experience in real-life events through narrative interviews (Riessman, 1993; Polkinghorne, 1988; Maclean et al., 2012) and complementary qualitative data sources. Narrative is at the core of psychological and social processes and a concept that can help investigate the links between experience, meaning, social structures, and culture (e.g., Mishler, 1991; Polkinghorne, 1988; Sarbin, 1986). Sensemaking narratives, involving 'the ongoing retrospective development of plausible images that rationalise what people are doing' (Weick et al., 2005, p. 409), are a significant activity in organising and the primary site where meanings materialise that inform and constrain identity and action (Helms-Mills, 2003, p. 35).

According to Gadamer (1975, p. 358), understanding is inherently interpretive: 'It means to use one's own preconceptions so that the meaning of the text can really be made to speak to us.' Bruner (1986, p. 146) similarly underscores the role of preconceptions, asserting that no social scientist 'is truly innocent' and that 'all (social scientists) begin with a narrative in our heads which structures our initial observations in the field'. Methodologically, this insight is central to narrative inquiry, where researchers are constantly 'in the middle of a nested set of stories — ours and theirs' (Clandinin & Connelly, 2000, p. 63). As such, narrative inquirers inhabit a dual intersubjective role of 'experiencing the experience and also being a part of the experience' (Clandinin & Connelly, 2000, p. 81; Rainbow & Sullivan, 1979). This positioning enables researchers to move back and forth between close involvement with participants and critical reflection through distance. Consequently, Bruner (1986) and Clandinin and Connelly (2000) emphasise the researcher's role as an active collaborator. Clandinin and Connelly (2000, p. 20) further develop this concept of collaboration, emphasising that narrative inquiry is not solely a method for understanding experience, but also 'a collaboration between researcher and participants, over time, in a place or series of places, and in social interaction'. In sum, this co-construction of meaning positions narrative inquiry as an ongoing, situated practice in which understanding emerges through the evolving interplay of researcher and participants.

Based on narrative research methods, following Polkinghorne (2007), the empirical publications of this dissertation focus on studying meaning as it is constructed through individuals' lived experiences, storied accounts, and contextually grounded interpretations. The purpose is not to uncover objective truths, but to explore how participants make sense of complex phenomena over time and to present these interpretations as coherent, resonant narratives that foster understanding. Building on this narrative orientation, the research seeks to uncover the meanings individuals ascribe to CIS during the early phases of catalysing EE. Identifying research gaps in understanding the micro-level, experiential dimensions of EE, especially during the ambiguous early phase, led me to adopt a qualitative, exploratory approach to generate new insights (e.g., Denzin & Lincoln, 2000). Such an exploratory approach is well-suited to contexts where the phenomenon is not yet well understood and typically involves multiple methods of data collection and analysis (Edmondson & McManus, 2007).

3.2.2 Empirical and temporal settings

Data holds the potential to tackle some of the most pressing challenges facing governments, societies, businesses, and science (World Economic Forum, 2021b). Yet, leveraging technological capabilities for effective data (economy) ecosystems requires multistakeholder collaboration to integrate diverse resources and capabilities across sectors (e.g., Enkel et al., 2020).

The empirical and temporal settings of this dissertation are the early phases of a national DE initiative[3] to create a space for DE actors and their EE catalysing actions and interactions. The studied DE initiative was a collaborative arena to coordinate information sharing, identify shared interests, foster situational awareness, and connect public and private actors across sectors to advance the legitimisation of DE and EE in Finland. In practice, the DE initiative presented a digital and relational space that brought together actors from different industries, public institutions, associations, and communities through a series of open social events, each gathering up to around 100 participants.

The DE initiative's launch phase (see Figure 7 below) consisted of three virtual events (from November 10 to December 8, 2020) aimed at creating space and time for collective learning and making sense of the state of DE in Finland. In this study, DE refers to an ecosystem of diverse actors, such as manufacturers, researchers, and infrastructure providers, who must collaborate (Schmidthuber et al., 2019; Enkel et al., 2020) to ensure data accessibility and usability (European Commission, 2017). In April 2021, six months after launch, the DE initiative continued as a bottom-up movement driven by volunteers with prominent roles in Finland's digital transformation. We observed this movement from its planning phase to a development workshop, gaining real-time access to the tensions individuals faced in their decision-making as they played out (e.g., Langley et al., 2013). Figure 7 illustrates the timeline of main events, which are elaborated in the next section on data collection and analysis.

[3] It is to be noted that the DE initiative was called the 'Data Economy Boardroom' (DEB) in Publication II and the 'Data Economy Collaborative Initiative' (DECI) in Publication III.

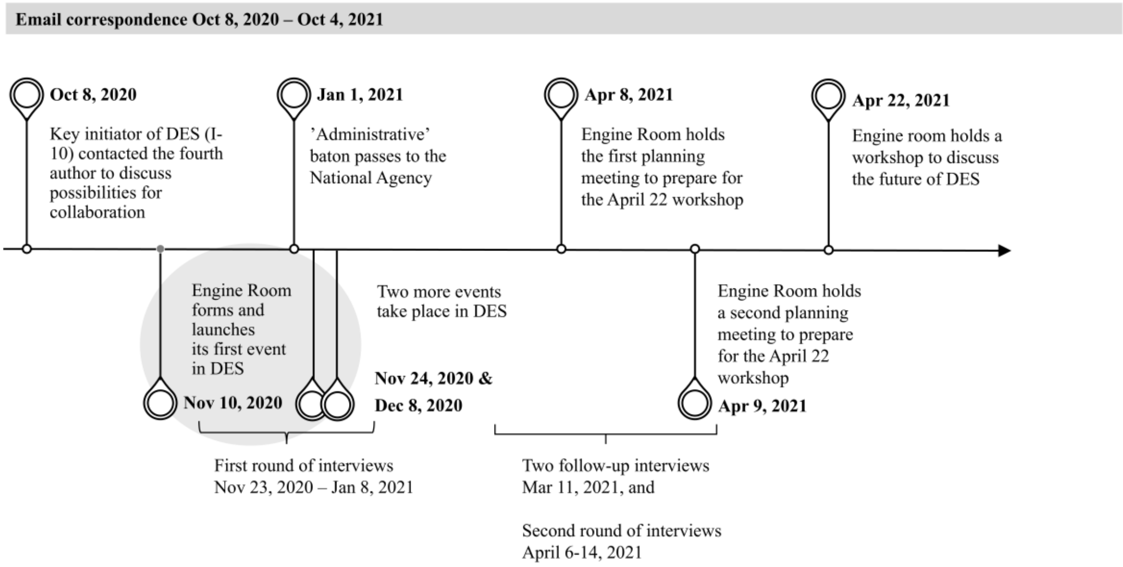

Figure 7. Timeline of main events

3.2.3 **Data collection and analysis**

In this section, I outline the data collection process. First, I provide an overview of the data collection, summarised in Table 1, to explain the larger research project as a whole.

The empirical material for this dissertation was collected between November 2020 and October 2021 (see Figure 7) in two phases, combining interviews, observations, and archival materials to capture the unfolding process of organising for EE.

In October 2020, the third author of Publication II received a phone call from an individual who later became a key informant for the study to discuss how to organise the DE initiative. Their paths had crossed earlier during an experiment called 'Fast Expert Teams' that brought together experts from different fields and organisations. The experiment of fast-paced online collaboration proved effective in connecting people rapidly across sectoral borders. It inspired the idea of creating something similar in another cross-sectoral context, such as DE. The authors realised that *the DE initiative offered a unique opportunity and unusual research access* to study the very early phases of collaborative innovation.

In the first phase (Publication II) between November 2020 and early January 2021, eleven narrative interviews (approximately 30 minutes each) were conducted with experts from various industries, such as banking, IT, and digital security, as well as public sector organisations, such as ministries, higher education organisations, and a national think tank. These experts were all actively involved in the initiative's planning and execution across sectors. The interviews examined informants' *subjective experiences* (Connelly & Clandinin, 1990; Riessman, 1993; Boje, 2001) of being involved in the launching of the initiative. During the initiative, the first author attended several planning meetings and conversed informally with the key informant, gaining a deeper understanding of the context (Shotter, 2006). The interviews were complemented by secondary data, including digitalisation and data economy reports, blog posts, meeting memos, workshop materials, and email correspondence, which were used to contextualise the narratives within broader societal developments.

In the second phase (Publication III) between March and April 2021, eleven in-depth interviews (25–49 minutes) were conducted to capture the *informants' perceptions and perspectives, providing insight into the meanings they attributed to their experiences and events* (Scheibelhofer, 2008) during their involvement with the DE initiative. Additional materials included two follow-up interviews, three recorded planning meetings (3 hours and 52 minutes), and archival data (22 emails and eight web pages). In total, the dataset comprises 24 interviews (13.5 hours, 96 transcribed pages), as shown in Table 1. This combination of longitudinal and multi-source data enabled a rich, nuanced understanding of how individuals experienced and navigated the in-between of creating CIS.

Table 1. Overview of data collection

Publication II: A threshold for collaborative innovation: exploring the dimensions of liminality in a data economy initiative				
	Main data	**Informants**	**Secondary data**	**Use of data**
Data items	11 narrative interviews (each ≈ 30 min)	Experts from companies, universities, and the public sector were involved in launching the data economy initiative.	Official digitalisation and data economy development reports, blog post(s), presentations, workshop materials, meeting memos, and emails.	Analysis of interviews was enhanced by familiarisation with the contextual underpinnings and societal discourse of data economy development and digitalisation.
Description of the data	Eleven transcribed narrative interviews		Pdf, ppt, Word format files and posts. Discussions on emails, shared materials, and memos.	
Timing	Nov 23, 2020– Jan 8, 2021			
Publication III: Tensions among decision-making trajectories in organising for ecosystem emergence: a paradox lens				
	Main data	**Informants**	**Secondary data**	**Use of data**
Data items	Eleven in-depth interviews	Experts from companies, universities, and the public sector who were involved in launching the data economy initiative.	Attendance and observation in planning meetings for the DECI launch. Two follow-up interviews (1,5h). Three meeting recordings, 3h 52 min. (23,5 pages of transcripts). Archival data (22 emails, eight pages of websites) from the DECI.	Follow-up interviews were employed for advanced research design. Meeting recordings supported a detailed and nuanced narrative analysis. Archival data, such as email correspondence, were collected to learn more about the contextual setting and to confirm the temporal understanding of unfolding tensions in related events.
Description of the data	The interviews lasted from 25 to 49 minutes and were transcribed verbatim.		Two transcribed follow-up interviews, mp4-files (video recordings), Word format files	
Timing	Apr 6-14, 2021		Oct 8 – Nov 10, 2020 planning meetings; Mar 11, 2021, follow-up interviews	
Total	The total number of 22 interviews was 13h 30 min., with 96 pages of transcripts.	The selection criteria for informants were their involvement in launching the data economy initiative.	The informants' age range was 35 to 75. Years of expertise in digitalisation ranged from 1 to 35 years.	The total time frame for the data collection was Nov 23, 2020 - Oct 4, 2021.

Next, I elaborate on the analytical procedures employed in Publications II and III, which constitute empirical studies within the same larger research project.

Publication II

Publication II is an interpretative narrative inquiry (Boje, 2001) that explores and develops an in-depth understanding of the conditions of being at the *threshold* of collaborative innovation. We were interested in individual participants' narratives of the meaning of experience in initiating a collaborative space. Through these narratives, we explored the different dimensions of liminality. Our approach offers a rich understanding of what the threshold is for creating space for collaborative innovation and how liminality as a lens helps make sense of this threshold from a particular standpoint in time (Bruner, 1991; Weick et al., 2005), capturing 'movement from past to present to future woven together in a meaningful sequence' (Fachin & Langley, 2018, p. 314). Our narrative inquiry encompasses both data collection and analysis methods, in which narrative is viewed as the primary means of making human experiences meaningful (Brown et al., 2008).

Data collection

The narrative data for Publication II were gathered during the early phases of the initiative, that is, from October 2020 to January 2021. During the initiative, the first author attended several planning meetings and conversed informally with the key informant to gain a richer understanding of the context in which the researched individuals were in action (Shotter, 2006). She also interviewed 11 individuals who were actively taking part in the initiative across sectors. The core group included representatives from industries such as banking, IT, and digital security, as well as public-sector actors, including ministries, universities, and a national think tank.

We explored what and how the core group involved in launching the DEB would narrate about the initiative, using a loosely guided conversation rather than a structured interview (Connelly & Clandinin, 1990; Riessman, 1993). The narratives also served as analytical cues to address the overarching question of 'what is the story' (Weick et al., 2005, p. 410) of which they were part. This narrative inquiry helped us remain attentive to how informants projected and anticipated their future (cf. Stigliani & Ravasi, 2012) while also illuminating individual experiences (e.g., Ryan, 2019) and common purpose (Ring & Van de Ven, 1994; von Hippel, 2005) of the liminal space, offering a nuanced view of the emergence of collaborative innovation.

Data analysis

Our analytical approach followed a thematic model of narrative analysis (Riessman, 1993; Esin, 2011), enabling comparison of the participants' descriptions of the phenomenon under study. It also resembled the categorical-content analysis by Lieblich et al. (1998), focusing on thematic similarities and differences within and between narratives by identifying connections across narrative segments/elements and the themes.

Preliminary analysis highlighted both shared and differing views on the DEB's purpose and the participants' motivations (later analysed as parallel narratives), offering promising themes for further analysis and theorising (cf. Sinkovics & Alfoldi, 2012). When analysing interviewees' personal descriptions of what DEB was and how and why individuals were engaged with the initiative, we paid attention to expressions of emotions, values, and anticipations (Gioia & Chittipeddi, 1991; Ring & Van de Ven, 1994; Stigliani & Ravasi, 2012), as such descriptions were assumed to convey the personally meaningful motives for participation. Multiple rounds of analytical dialogues between the first and second authors deepened the analysis. As the third and fourth authors joined the analysis, they offered a fresh perspective (Stake, 2008), which refined the clarity and nuance of our findings. To deepen our understanding, we revisited the literature and found the concept of liminality that best captured the patterns emerging across interviews. With a renewed understanding, we reinterpreted the three meanings of understanding, making connections, and taking action through their in-between (or liminal) nature in creating space for collaborative innovation. Combining these initial meanings with the notion of threshold enabled us to conceptualise three liminal dimensions: *confusion–clarity, isolation–communal, and stagnation–movement*.

Publication III

To gain an in-depth understanding of individual experiences in Publication III, we adopted Riessman's (2008) narrative method, inviting participants to speak freely about their work and lives. Narratives play a key role in processes of stability and change in organisations (e.g., Dailey & Browning, 2014; Farjoun, 2010; Feldman, 2000). They provide a means to 'maintain or reproduce stability and/or promote or resist change in and around organisations' (Vaara, Sonenshein, & Boje, 2016). This makes the narrative approach particularly suitable for studying multistakeholder arrangements in organising for EE. The methodology guided both our data collection and analysis.

Data collection

The qualitative data were collected during the first six months of the DECI, namely, from October 2020 to October 2021. The first author conducted two sets of interviews and observations during the DECI's first six months, having already attended the planning meetings before the DECI was launched (see Figure 7). Other data sources included two follow-up interviews and three meeting recordings to support rich and nuanced narrative analysis. Archival data, such as email correspondence and websites, were collected to learn more about the contextual setting and to confirm the temporal understanding of unfolding tensions in related events. For this paper, we conducted the second set of in-depth interviews (Johnson, 2002) with 11 selected key informants involved in planning and executing the DECI in April 2021. The informants were actors from companies, universities, and the public sector.

In-depth interviews (Johnson, 2002) were used to capture interviewees' perceptions and perspectives, thereby understanding the meanings they attributed to experiences and events (Scheibelhofer, 2008). The interviews focused on the perceptions and experiences of selected informants who were involved in planning and executing the DECI to organise for EE. An interview guide for this study was co-created with the coordinator and the key initiator of the DECI. Narrative methodology informed our data collection and analysis. To understand individual experiences, we adopted Riessman's (2008) narrative method, inviting participants to speak freely about their work and lives. As narratives are key to stability and change in organisations (e.g., Dailey & Browning, 2014; Farjoun, 2010; Feldman, 2000), they offer a useful way to study multistakeholder dynamics in EE (Vaara et al., 2016).

Data analysis

Our initial analysis began with reading transcripts to familiarise ourselves with the entire dataset (cf. Braun & Clarke, 2022), revealing participants' divergent views on the motivation to develop the DECI's function and form differently. When we engaged in rounds of critical reading and deepened our analysis with a more systematic approach, we realised that our participants were not only considering their alternatives for developing the function and organisation of the DECI but were also 'pulled' between contradictory views.

After multiple iterations with all the authors, we identified six contradictory poles of paradoxical tensions: *inclusive–exclusive participation, regulated–unregulated agendas, coordinated–uncoordinated collaboration, defined–undefined roles, ad-hoc–committed participation, and designated–voluntary resources*. These contradictory tensions, related to the different *decision-making trajectories*, are informed in a 2×2 matrix structured along function (coalescence vs. cooperation) and organisation (informal vs. formal), following Daymond et al. (2023). While some participants saw these choices as either/or, others embraced both/and thinking (Putnam et al., 2016). Sensitising the analysis with paradox theory (Langley, 1999) enabled us to move from raw data to abstract conceptualisation. To safeguard anonymity while capturing the complexity of the participants' views, we employed composite narratives—an approach that weaves together material from multiple interviews into a single, coherent story (Willis, 2018, 2019). Rather than fragmenting data into abstract categories, this method affords the reader access to the emotions and lived experiences of participants, conveying what Orbach (2000, in Willis, 2019, p. 472) describes as 'emotional truth' and Wertz et al. (2011, p. 8) as the 'felt-sense' of experience. At the same time, composite narratives ensure that sensitive details cannot be traced back to individual participants. This approach is efficient for presenting tensions, dilemmas, and contradictions, as it allows multiple and sometimes conflicting voices to be integrated into a single account without oversimplification (Willis, 2018, 2019).

Based on positions in the matrix, we developed four composite narrative types—Paul, Matthew, Tina, and Sarah. Each composite narrative is constructed from one to four condensed interview transcripts, which are then combined into a single account. For instance, 'Paul' draws on three DE actors who all work in the public sector, while 'Matthew' combines four experienced DE actors from both the public and private sectors. All the quotations come directly from the interviews, and other details (such as settings or conversational flow) are drawn from one of the sources. Importantly, the narratives avoid imposing judgement or interpretation. When 'Tina' reflects, 'this thing now doesn't work ... it is not just a presentation and then nothing happens', this represents the interviewee's own reading of events. Together, these practices ensure a clear link between the original data and the final narratives; the only modification is to present material from several interviewees as if it were from one individual. The term 'narrative' rather than 'fiction' emphasises their grounding in empirical data (Willis, 2018, 2019).

Finally, our analysis led us to a model of four decision-making trajectories in organising for EE, illustrating the underlying dilemmas and paradoxes in governance decisions in the making.

Publication I

Publication I is a conceptual paper and does not contain empirical data. After two empirical papers, it became evident that our analysis did not include further theorising of agency or leadership in the process of creating space for collaborative innovation to catalyse EE. To address this opportunity, Publication I in this dissertation is a conceptual paper based on a literature synthesis of CIS. The aim of the paper is to deepen the theoretical understanding of how CIS enable collective leadership in catalysing EE, as the CIS's role of enabling relational leadership processes in the context of EE remains unstudied. Publication I provides a conceptual and theoretical background to different characteristics of CIS based on the literature on organisational spaces. Publication I advances theoretical understanding by integrating and extending existing research rather than presenting new empirical data (Gilson & Goldberg, 2015; Yadav, 2010), bearing in mind Jaakkola's (2020, p. 20) observation that:

> in a conceptual paper, one crucial function of the research design is to explicate the role of each element in the paper. Defining the roles of different theories also helps to indicate the paper's positioning and how its contribution should be evaluated.

In the following section, I will elaborate on the research design to further clarify the methodological choices made to address the research gaps.

3.2.4 **Addressing the research gaps**

The study presented in Publication I was designed to address the first research gap, namely, to explore the missing conceptual and theoretical understanding of the role of CISs in enabling collective leadership in catalysing EE. By reviewing the literature on CISs and collective leadership, the study developed a novel synthesis of spatial, relational, and processual perspectives to advance understanding of a developing field and provide a foundation for further research in the domain.

A narrative inquiry (Publications II–III) was designed to conceptually and empirically address the second identified research gap (to address the lack of academic understanding of how CISs are initiated and sustained; that is, what happens before collaborative innovation) through the liminality lens. To address the third identified research gap and explore the challenges and tensions involved in creating CISs (as a multistakeholder arrangement) to catalyse EE, the third individual study was designed to empirically examine the tensions individuals face among decision-making trajectories in organising for EE through the lens of paradox.

In line with the qualitative interpretative approach, I followed research procedures that are inductive, emergent, and shaped by researchers' experience in collecting and analysing data. Thus, in contrast to deductive logic, which is theory-driven and aims to confirm or test existing frameworks, I began with an inductive logic, building understanding from the raw data and informants' experiences, rather than relying entirely on pre-existing theories or assumptions (e.g., Creswell, 2013; Azungah, 2018). Due to the inductive nature of the study (e.g., Creswell, 2013), theorising the core phenomenon of individuals' meanings of CIS creation examined in this dissertation was a continuous and evolving process. At first, with the first round of interview data, we examined the preformation process of EE. After multiple revisions, our revised understanding of the analysed data and the research problem was directed toward creating CIS and their liminality in the context of EE. With the second round of interview data, we started with the organising process for EE until our focus turned to the paradoxical tensions in the multistakeholder arrangement and its decision-making trajectories. Therefore, connecting with theories has been constant, but the focus has been shifting.

To provide an overview of the research focus in each publication in relation to research gaps and to summarise the narrative approach of Publications II and III, as elaborated above, I include Table 2.

Table 2. The research focus of each publication and the narrative approach in Publications II and III

Publication	Research focus on addressing the research gap	Methods and data
Publication I Collaborative innovation spaces as enablers of collective leadership in catalysing EE	Explores the missing conceptual and theoretical understanding of the role of CIS in enabling collective leadership in catalysing EE	Conceptual paper; literature synthesis. No empirical data—based on literature review and theoretical integration.
Publication II A threshold for collaborative innovation: Exploring the dimensions of liminality in a DE initiative	Conceptualises and empirically investigates how liminality contributes to the research and practice of the emergence of collaborative innovation.	Qualitative narrative methodology; eleven narrative interviews and analysis. Narratives shed light on individuals' experiences of a liminal space from various perspectives, providing a nuanced understanding of the emergence of collaborative innovation. Official digitalisation and DE development reports, blog post(s), presentations, workshop materials, meeting memos, and emails. November 2020–January 2021
Publication III Tensions among decision-making trajectories in organising for EE: a paradox lens	Empirically explores individuals' tensions in multistakeholder arrangements when organising for EE and how paradox theory can elucidate their decision-making trajectories.	Qualitative narrative methodology, eleven in-depth interviews and two follow-up interviews. Informants from companies, universities, and the public sector. Three meeting recordings and archival data (emails, websites) from the DECI. Analysis with the use of composite narratives. Visual analysis with a 2x2 matrix to facilitate our understanding of informants' varied decision-making trajectories regarding the organisation of the DECI. October 2020–October 2021

Next, I conclude this methodological chapter by considering the research quality and trustworthiness of this dissertation.

3.3 Research quality and trustworthiness

Axiology refers to the ethics, values, and biased views researchers bring into the research process (Hart, 1971), which influence choices in research design, data interpretation, and the results of the inquiry. It plays a central role in interpretivist research. The researcher's biases, based on values, positionality, and pre-understandings, are acknowledged as part of the meaning-making process (Gadamer, 1975; Clandinin & Connelly, 2000). According to Rescher (2005, as quoted in Garud et al., 2017), addressing axiological assumptions requires researcher reflexivity regarding the values embedded in their work and the arguments they present. The author of this study was born in Finland and holds a master's degree in knowledge management, obtained ten years ago. She possesses approximately thirty years of professional experience, including twelve years serving as an executive assistant to chief executive officers in the private sector. Her expertise in the DE has been developed through three years of work as a finance and personnel manager in a non-governmental organization specializing in open data, open knowledge, and the advancement of the MyData movement.

In this research, the researcher is reflexively engaged in interpreting narratives while also inhabiting the relational space of the inquiry. For instance, by attending events and observing meetings held online via Teams and Zoom. The researcher's background and participation in several planning meetings of the DE initiative provided her with a nuanced understanding of the contextual dynamics, actor relationships, and evolving interpretations that shaped the collaborative process. This approach supports a deeper intersubjective engagement with the viewpoints and tensions expressed by the participants.

Furthermore, this dissertation and the associated publications integrated axiological considerations throughout the research process from design and data collection to analysis and interpretation. Special attention was paid, for example, to ensuring the anonymity of the research participants. The co-authoring researchers also engaged in regular dialogue to continuously challenge the biases and values shaping the research process. Our analytical discussions took several rounds to reveal our biases.

Within an interpretivist research paradigm, evaluating quality requires criteria that align with the paradigm's ontological and epistemological assumptions. It is proposed that the concept of *trustworthiness* (i.e., rigour) is an appropriate criterion for validity and reliability in qualitative research. Trustworthiness comprises four interrelated criteria: credibility (truth value), transferability (applicability), dependability (consistency), and confirmability (neutrality). In narrative research, credibility is enhanced through *prolonged engagement and reflexivity* as well as strategies such as *member checking,* allowing participants to review and reflect on narrative constructions (Lincoln & Guba, 1985, 1986.)

In this dissertation, Publications II and III are based on the same research setting. Prolonged engagement was established through sustained and in-depth interaction with a group of individuals who initiated collaboration by creating space for collaborative innovation in the DE to catalyse EE. This six-month-long research setting with two interview rounds, pre- and follow-up conversations, enabled prolonged engagement with the key informants, allowing the identification of contextual saliencies and reduction of potential distortions. Persistent observation was carried out to focus on elements that emerged as particularly significant during the prolonged engagement phase. Furthermore, as mentioned concerning axiology, reflexivity with prolonged engagement in this research was possible due to the researcher's participation in the events and meetings of the DE initiative, which enabled her to make observations about the research context. In Publication II, the main author provided the core group with a descriptive summary of the interviewees' main viewpoints, the purpose and expectations of the DE initiative, and the activities undertaken to support networking and learning within the DE initiative. The participants appreciated the different perspectives that were made visible and confirmed our insights. Member checking in Publication III occurred through the sharing of initial insights that the participants had differing views on how the DE initiative should evolve. That is, whether to maintain its current role in community building and information sharing or shift toward more formal cooperation and concrete outcomes.

Further drawing on criteria proposed by Lincoln and Guba (1986), *transferability* in this dissertation is achieved through rich, contextualised descriptions that allow readers to assess the applicability of findings to their own contexts. *Dependability and confirmability* are fostered through clear documentation of the interpretive process, reflexive journaling, and transparent methodological decisions. *Triangulation* was employed by incorporating multiple data sources, methods, and/or perspectives to enhance the credibility of the findings. *Peer debriefing* was used to ensure reflexivity and analytical rigour by regularly consulting with an impartial co-author, which supported the refinement of interpretations and the research design.

Polkinghorne (2007) frames validity in narrative inquiry as an *intersubjective judgment*, referring to the extent to which readers find the interpretations plausible, coherent, and meaningful within a given cultural and temporal context. He distinguishes between the credibility of narrative accounts, which may be affected by the limitations of language, memory, or co-construction, and the plausibility of interpretive conclusions, which rests on the researcher's ability to justify interpretations through reasoned, ethical argument. Narrative research thus values *narrative truth over factual precision*, focusing on how individuals make sense of their lived experience. The resulting outcome of the narrative papers in this dissertation is an *interpretive and persuasive construction*, designed to foster understanding of human experience rather than deliver final truths (Polkinghorne, 2007; Lincoln & Guba, 1985). To conclude, the validity of narrative research lies not in factual precision but in its plausibility, coherence, and resonance.

The techniques of addressing the criteria outlined above, based on Lincoln and Guba (1985, 1986) and Polkinghorne (2007), are summarised in Table 3, which presents how research quality and trustworthiness were ensured across the dissertation.

Table 3. Research quality and trustworthiness

Techniques of Addressing Quality Criteria	**Publication I (Conceptual)**	**Publication II (Empirical)**	**Publication III (Empirical)**
Prolonged engagement and reflexivity (credibility)	Conceptual reflexivity through immersion in theory and analytical depth.	Six-month longitudinal engagement in a collaborative innovation process; focus on analysis of first-round interviews; participatory observation; reflexive presence at DEB meetings and events.	Six-month longitudinal engagement in a collaborative innovation process; focus on analysis of second-round interviews; participatory observation; reflexive presence at DEB meetings and events.
Member checking (credibility)	Not applicable, as this is a conceptual paper without participant engagement or empirical data.	The participants were provided with a summary of interview insights on the DEB, including expectations and perceived purpose. These insights were acknowledged and affirmed by the core group.	The participants reflected on differing interpretations of the DECI's future role (community vs. formal cooperation). Sharing these perspectives allowed for interpretive validation through feedback.
Persistent observation (credibility)	Focused engagement with core conceptual tensions (e.g., liminality, relational space) through persistent theoretical exploration.	Focused attention on salient liminal tensions and thresholds through continuous observation and reflective fieldwork.	Detailed focus on paradoxes in organising; persistence in following tensions through empirical material.
Transferability (applicability)	Transferable theoretical insights and conceptual framings applicable across multiple innovation contexts.	Rich descriptions of context, actors, and dynamics enable readers to assess the relevance of the findings to other settings.	Thick contextual detail allows insights to be assessed for broader relevance across ecosystem cases.
Dependability (consistency)	Clear conceptual development and methodological transparency in constructing the argument.	Well-documented process tracing of analysis development, coding strategies, and interpretive decisions.	Transparent methodological choices and consistent treatment of paradox theory across cases.
Confirmability (neutrality)	Theoretical argumentation was developed through a synthesis of referenced literature and reasoned analysis.	Reflexive journaling and co-authorship, along with regular dialogues, ensured neutrality and openness regarding the researcher's position.	Clear documentation of coding and interpretation was supported by reflective notes and team dialogue among co-authors.

Triangulation (credibility)	Triangulation across theoretical perspectives: ecosystem literature, organisational space theory, relational leadership, and process ontology.	Multiple data sources: interviews, discussions via email, shared materials, memos, official reports on digitalisation and DE developments, and other documentation to support trustworthiness.	Multiple data sources: interviews, observational data, and document analysis to support trustworthiness.
Peer debriefing (credibility & dependability)	Refinement was based on empirical insights and academic discourse.	Regular peer interaction and co-author dialogue supported theoretical grounding and refined findings.	Co-author debriefing was used to critique interpretations and ensure analytic integrity.
Plausibility, coherence, and resonance	A coherent conceptual analysis was developed through careful synthesis to resonate with readers in innovation and leadership studies.	Narrative coherence was established through layered interpretation, where meaning was constructed through multiple levels of analysis and reflection, as well as participant meaning-making.	Interpretations were framed to resonate with readers through a balance of theory and experiential grounding.
Narrative truth over factual precision	Not applicable, as this is a conceptual paper without narratives.	Honours participants' accounts as expressions of lived experience rather than objective fact.	Stresses the sense-making process of actors navigating complex, ambiguous organising contexts.
Interpretive and persuasive construction for understanding	Presents a reasoned, rhetorical construction to stimulate conceptual understanding.	Uses narrative inquiry to illuminate human experience within a collaborative innovation threshold.	Constructs a persuasive narrative to explore and communicate the lived dynamics of paradox in organising for EE.

4 Results of the three articles

In this chapter, I outline the dissertation's original findings and provide a concise overview of the background, research objectives, main findings, and scholarly contributions of the three publications. First, I advance a new theoretical understanding of the role of CIS as enablers of relational and collective leadership in catalysing EE (Publication I). Second, I offer empirical insight into how CIS are initiated, specifically, what occurs before collaborative innovation takes shape (Publication II) by examining individuals' sensemaking narratives. Third, I deepen empirical understanding of the challenges and tensions inherent in the early processes of creating space for organising toward EE (Publication III). Together, these studies clarify the implications of CIS in the earliest stages of establishing the conditions for EE. Finally, I summarise the results in Table 4.

Each publication was initially presented at international conferences between 2021 and 2025. In addition, Publication II was published in a scholarly journal, first online in 2023 and later in March 2024. Publication III was further developed and submitted to a scholarly journal in June 2024.

4.1 Publication I: Collaborative innovation spaces as enablers of collective leadership in catalysing ecosystem emergence

4.1.1 Background and objectives

The first publication in this dissertation is a conceptual paper based on a literature synthesis of CIS. The aim of the paper is to deepen the theoretical understanding of how CIS can enable collective leadership in catalysing EE. In Publication I, I begin by positioning a processual, socially constructed view of EE, which aligns well with the concept of collective leadership, understood as a property of a social system that arises when individuals engage in collaborative thinking and action (Drath, 2001). Although collective leadership and CIS have been widely studied, the intersection between these theoretical perspectives (Barney, 2018), particularly in the context of catalysing EE, remains underexplored. Thus, the paper discusses the role of CIS by drawing on carefully selected theories to address the research gap.

CIS, such as living labs, makerspaces, innovation hubs, virtual collaboration platforms, and communities, share core characteristics: they are socially constructed, experimentally oriented, and inherently liminal spaces (Caccamo, 2020). In the organisational space literature, liminal spaces are examined, such as physical corridors, university–industry centres, incubators, or social networks (Stephenson et al., 2020). Liminality refers to a transitional state of becoming—being on the threshold or boundary, no longer in the previous state yet not fully in the next (Küpers, 2011; Tagliaventi, 2019; Piironen, 2024; Popova et al., 2025). It is an in-between, transitional state where established roles, norms, and boundaries are temporarily suspended (Turner, 1974), enabling new or different ways of thinking, learning, and relating (Tagliaventi, 2019). Drawing on relational and processual perspectives, I introduce the notion of situational embeddedness to highlight the context-dependent nature of CIS and to emphasise the transformational potential afforded by shared space and collective intention.

Drawing on this conceptualisation in combination with liminality, I define CIS as temporary, transitional spaces of being and becoming, where actors' relation(ship)s and interactions (Bradbury & Lichtenstein, 2000) are deeply situated in a particular setting (Scharmer & Pomeroy, 2024). This situated embeddedness emphasises the context-dependent nature of CIS (Leminen, De Vita, Westerlund & Ritala, 2024) and underscores the importance of appreciating the possibilities created by space (Caccamo, 2020) and shared interests (Furnari, 2014; Thomas & Autio, 2014; Dzhengiz & Patala, 2023).

4.1.2 Main findings

Synthesising the literature review, a conceptual overview is presented that draws on the concept of the social field (Scharmer & Pomeroy, 2024). I propose that situational embeddedness in CIS refers to how relational dynamics shape ongoing processes of being and becoming, that is, how individuals relate with themselves, others, and world. These dynamics create a living relational space of a social system, understood here as a property of collective leadership. In other words, by emphasising the context-dependent nature of CIS (Leminen et al., 2024), I argue that this embeddedness, emerging from the interplay between being and becoming, is inherently dynamic and alive. This perspective invites a deeper appreciation of the possibilities arising from the space itself (Caccamo, 2020) and the situation through shared interests (Thomas & Autio, 2014; Dzhengiz & Patala, 2023). Consequently, CIS enable collective leadership in catalysing EE (Figure 8).

A process of enabling conditions for aligning individual and collective intention and attention to catalyse EE. CIS and collective leadership overlap at the outset, creating situational embeddedness of being and becoming.

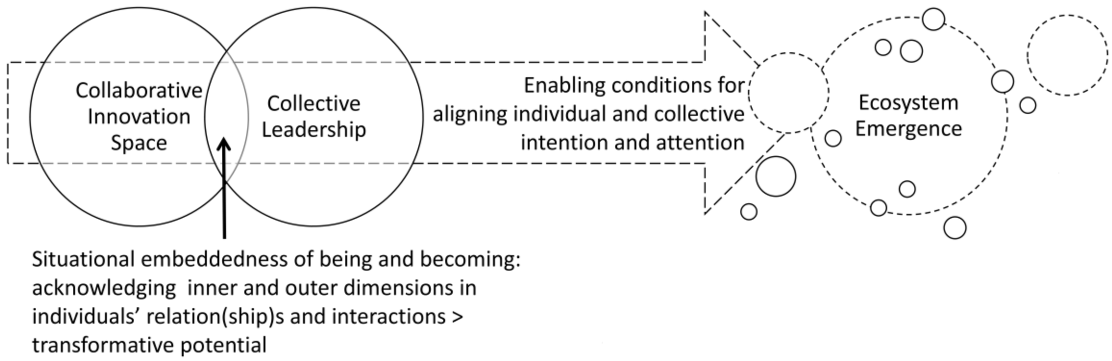

Figure 8. A conceptual overview of CIS as enablers for collective leadership in catalysing EE

4.1.3 Contributions

In Publication I, I advance theoretical understanding by integrating and extending existing research rather than presenting new empirical data (Gilson & Goldberg, 2015; Yadav, 2010), in alignment with Jaakkola's (2020, p. 20) observation that:

> in a conceptual paper, one crucial function of the research design is to explicate the role of each element in the paper. Defining the roles of different theories also helps to indicate the paper's positioning and how its contribution should be evaluated.

With this paper, I contribute to the literature on CIS, collective leadership, and ecosystems by offering a novel synthesis of spatial, relational, and processual perspectives. I conceptualise CIS as temporary, transitional spaces of being and becoming, where actors' relation(ship)s and interactions (Bradbury & Lichtenstein, 2000) are deeply situated in a particular setting (Scharmer & Pomeroy, 2024). This advances relational leadership theory (e.g., Uhl-Bien, 2006; Ospina, 2017) by showing how spatial and temporal dimensions, such as full presence in the moment (Scharmer & Kaufer, 2013; Scharmer & Pomeroy, 2024), shape the emergence of leadership through situated interactions.

By framing CIS as liminal, the study deepens understanding of leadership as a state of becoming, rather than a fixed role, extending research on liminality in organisations (Küpers, 2011; Tagliaventi, 2019) and connecting it to processual ontology (cf. Chia, 1995). In addition, with the concept of situational embeddedness, I provide conceptual clarity on the role of recursive spaces in collaborative innovation (Yström & Agogué, 2020). This perspective advances our understanding of how individuals' relational experiences participate in and shape the unfolding processes of systemic transformation.

4.2 Publication II: A threshold for collaborative innovation: exploring the dimensions of liminality in a data economy initiative

4.2.1 Background and objectives

Collaborative innovation requires spaces where diverse actors can meet, exchange information, engage in dialogue, and ultimately co-create new solutions. Although scholarly and practical interest in such spaces has increased, there is still a limited understanding of how they are initiated and sustained. In this study, we examine a national DE initiative (DEB) as a virtual and mental space where cross-sectoral actors can come together, share information, and identify common interests for research and development in the DE. Focusing on the early phases of collaborative innovation, we use the lens of liminality to explore how individuals' sensemaking narratives manifest the different dimensions of liminality. Liminality refers to the experience of being in a transitional state—on the boundary of one state and not yet fully in the next—often characterised by intense periods of development and learning (e.g., Czarniawska & Mazza, 2003; Tempest

& Starkey, 2004; Ryan, 2019). Amidst complexity and ongoing change, such positions of ambiguity and uncertainty (Ellis & Ybema, 2010; Beech, 2011) can be described as states of being ‘betwixt and between’ or as existing at the edges of established structures (Tempest & Starkey, 2004). Our research questions were as follows: what is the threshold for creating space for collaborative innovation, and how does liminality as a lens help us make sense of this threshold?

4.2.2 **Main findings**

By adopting liminality as an analytical lens, our study offers a nuanced understanding of how spaces for collaborative innovation are created. By examining participants’ sensemaking in initiating such a space, we further conceptualised three dimensions of liminal space (see Figure 9), understood here as a transitional threshold that orients participants toward collaborative innovation. These dimensions are interwoven within the threshold, enabling collective sensemaking.

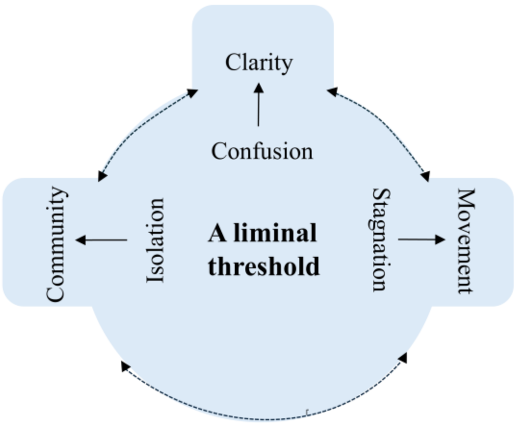

Figure 9. A liminal threshold for collaborative innovation

The three dimensions of liminality are confusion–clarity, isolation–communal, and stagnation–movement.

Confusion–clarity highlights the unstructured and ambiguous state participants find themselves in and how interaction at the DEB could help them navigate that state of not-yet-knowing. The interviews reveal that the underlying meaning of the initiative was to find a common direction and navigate the DE field together.

Isolation–Communal: Throughout the interviews, the DEB was described as an initiative that brings together people with diverse perspectives and resources, such as knowledge, expertise, and funding, around a shared purpose.

Stagnation–Movement: The DEB initiative represents a threshold for a national-level transition from isolated and unstructured efforts to a more legitimate and communal way of working toward a shared vision for the DE. This third dimension highlights the various movements toward action that core group members view as meaningful in advancing the initiative's shared vision and goal.

Framed as a threshold for collaborative innovation, the DEB initiative represents a liminal space. Such a space emerges when individuals come together in temporary spaces outside formal organisations and structures, while experiencing ambiguity and uncertainty about the initiative, themselves, others, and the broader context. It was not only a confusing mental state in which the big picture remained unclear and had to be navigated, but also a complex social setting in which participants needed to connect, learn, and take action rather than operate in isolation.

4.2.3 **Contributions**

As our first theoretical contribution to the literature on CIS, we propose a three-dimensional conceptualisation of a liminal space as a threshold for collaborative innovation. We identify liminal in-betweenness as a necessary state in how individuals mentally enter and inhabit a threshold for creating space for collaborative innovation, each bringing their own meanings to the process. It is a challenging yet important state of becoming that transforms an ambiguous space into a meaningful place (Tuan, 1977; Cresswell, 2014). Our second contribution is methodological. By bringing in the microfoundation perspective (see, e.g., Yström & Agogué, 2020) and narrative approach, we focus on individuals' perceptions and experiences. Therefore, we provide a novel perspective and understanding of the emergence of collaborative innovation. Our study also enhances scholars' and practitioners' understanding of the tensions related to the very early phase of collaborative innovation.

4.3 **Publication III: Tensions among decision-making trajectories in organising for ecosystem emergence: a paradox lens**

4.3.1 **Background and objectives**

Paradoxically, EEs are not purely organic but also a result of simultaneous organising efforts within collaborative processes. For an ecosystem to emerge, multiple organisational actors must come together to negotiate and decide on the essential elements of a functioning ecosystem (Thomas et al., 2022). Although scholarly understanding of this process has advanced (Jacobides et al., 2018; Pushpananthan & Elmquist, 2022; Daymond et al., 2023), empirical research remains limited on how ecosystems come into being and the challenges and tensions that arise during this process. Therefore, we adopt a microfoundations perspective to explore the tensions individuals face when organising for EE within a multistakeholder arrangement that involves multiple, highly heterogeneous would-be ecosystem actors (Thomas et al., 2022). Microfoundations scholars argue that individuals and their interactions are central to understanding organisations and social systems, as they address the micro–macro link—the way individual-level factors aggregate into collective outcomes (Barney & Felin, 2013). Adapting this perspective brings attention to the 'actors that lead to the emergent outcome' (Barney & Felin, 2013, p. 147)—namely, the ecosystem. For these actors, it is essential to understand better the 'countervailing processes and the mastering of contradictory or even paradoxical requirements in organisations and networks' (Schreyögg & Sydow, 2010, p. 1259). The objective of Publication III is to examine the coexisting contradictions in organising for EE (Smith & Lewis, 2011; Vangen, 2017) by responding to our research questions: what kind of tensions does organising for EE as a multistakeholder arrangement pose to individuals? How does paradox theory, as a lens, help us make sense of those tensions that relate to decision-making trajectories in organising for EE?

4.3.2 Main findings

Using paradox theory as an analytical lens, we build four composite narratives—Preserve, Upgrade, Reconstruct, and Solidify—each representing a distinct decision-making trajectory and reflecting the paradoxes inherent in forming shared governance and purpose. Furthermore, our model (Figure 10) elucidates four decision-making trajectories in organising for EE with the underlying dilemmas and paradoxes.

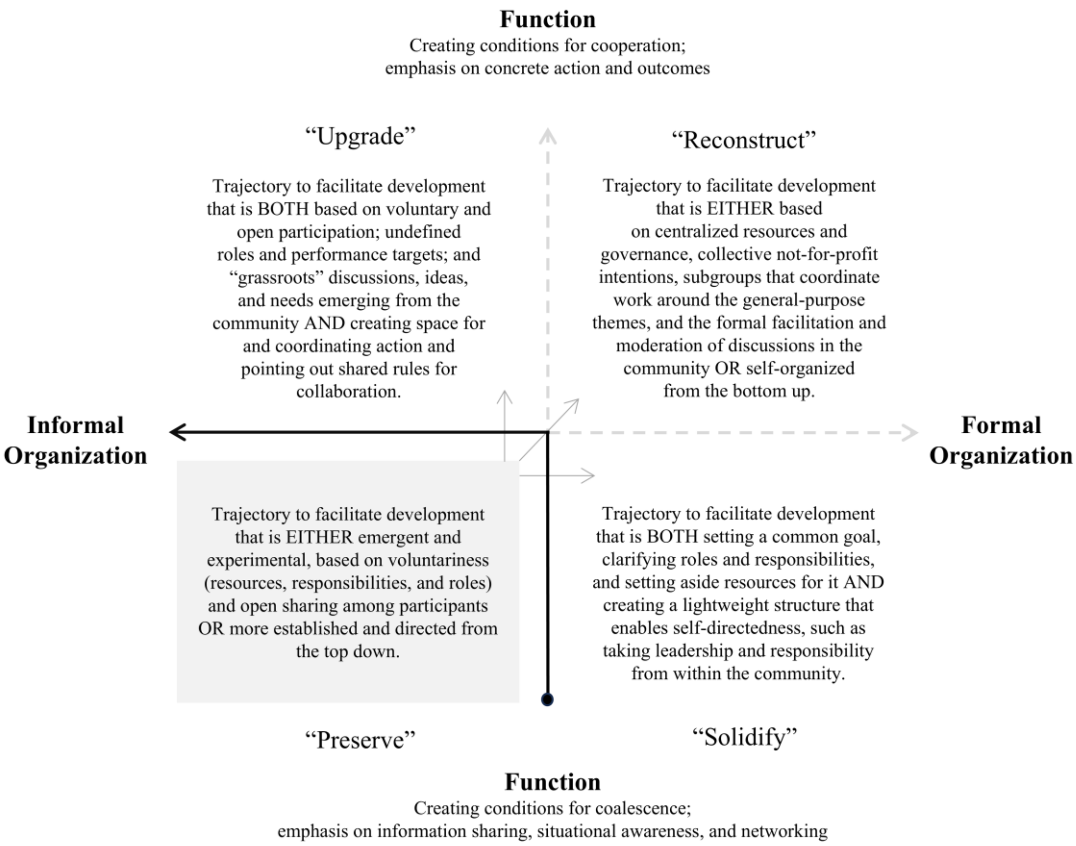

Figure 10. Four decision-making trajectories in organising for EE

4.3.3 Contributions

We contribute to the ecosystem literature and microfoundations of paradox literature by discussing the nature and meaning of the underlying tensions for the focal individuals and their governance decision-making trajectories in organising for EE. More specifically, we contribute to the ecosystem literature by examining a multistakeholder arrangement in organising for EE involving diverse actors (e.g., Thomas et al., 2022). The paradox lens provides a novel perspective on the involved tensions. Additionally, we extend the microfoundations perspective and respond to Felin and Foss's (2023) call for firm-level theorising by highlighting the role of focal individuals in driving EE (Barney & Felin, 2013).

We suggest that forming mutual perceptions of organising for EE (Drori & Lavie, 2024) involves recognising tensions within multistakeholder arrangements and the alternative decision-making paths individuals adopt in response. The identified decision-making trajectories and the inherent 'tensions' within them may underlie organisational bottlenecks at the individual level. We extend the microfoundations of paradox literature (e.g., Miron-Spektor et al., 2018) by suggesting that ecosystem actors with both/and thinking can accept (Lê & Pradies, 2023) and let go of (Lewis & Smith, 2022) formal structures. Thus, they may embrace partial fluidity in organising (Schreyögg & Sydow, 2010). This flexibility can open alternative decision-making paths and help resolve conflicts without paralysis. When informal and formal approaches are balanced and decision-making is postponed, individuals gain time and space for reflection and learning. However, suspended action may risk stagnation due to a lack of organisation.

Our study also makes a methodological contribution by employing composite narratives (Willis, 2018, 2019), which enable us to convey the contextual nature of dilemmas and paradoxes without compromising the complexity, richness, and nuances of the narrative data, while also maintaining interviewee anonymity. Sensemaking in narrative interviews (Riessman, 2008) also reveals how tensions and contradictory demands, such as resourcing, coordination, roles, and commitment, are deeply entangled and not easily separated.

4.4 **Summary of the results**

In this chapter, I have advanced a new theoretical understanding *of the role of CIS as enablers of relational and collective leadership in catalysing EE* (Publication I). Second, I provided empirical insight into how CIS are initiated, specifically what occurs before collaborative innovation takes shape (Publication II) by examining *individuals' sensemaking narratives.* Third, I deepened empirical understanding of *the challenges and tensions* inherent in the early processes *of creating space for organising toward EE* (Publication III). Together, these studies clarify the implications of CIS in the earliest stages of establishing the conditions for EE. I summarise the results and their contributions from all the publications outlined above in Table 4, which presents an overview of the research conducted. This summary of the results serves as an essential basis for the subsequent discussion, in which I address the dissertation's research questions and articulate the study's theoretical contributions and practical implications.

Table 4. Summary of results in the publications included in this dissertation

	Publication I	**Publication II**	**Publication III**
Publication title	Collaborative innovation spaces as enablers of collective leadership in catalysing EE	A threshold for collaborative innovation: Exploring the dimensions of liminality in a DE initiative	Tensions among decision-making trajectories in organising for EE: A paradox lens
Research questions	Not applicable.	1) What is the threshold for creating space for collaborative innovation, and how does liminality as a lens help us make sense of this threshold?	1) What kind of tensions does organising for EE as a multistakeholder arrangement pose to individuals? 2) How does paradox theory, as a lens, help us make sense of those tensions that relate to decision-making trajectories in organising for EE?
Main findings	A conceptual overview drawing on the concept of social field. I propose that situational embeddedness and the dynamics shaping the process of being and becoming (i.e., how individuals relate with themselves, others, and world) create a living relational space of a social system as a property of collective leadership. Recognising the inner and outer dimensions of relational experiences can help align individual and collective intention and attention, enabling transformative potential. Consequently, CIS can enable collective leadership in catalysing EE.	Using liminality as a lens, we construct a theoretical conceptualisation of three liminal dimensions: *confusion–clarity, isolation–communal, and stagnation–movement*. These dimensions are intertwined within the threshold, allowing collective sensemaking. The study offers a nuanced understanding of creating spaces for collaborative innovation by elaborating on participants' sense-making of initiating a space. Consequently, CIS are liminal transitional spaces of collective sensemaking in initiating action for EE.	Using paradox theory as an analytical lens, we construct four composite narratives—Preserve, Upgrade, Reconstruct, and Solidify—each illustrating a distinct decision-making trajectory and the paradoxes involved in shaping shared governance and purpose. Our model further clarifies these trajectories and the underlying dilemmas in organising for EE. Consequently, CIS are tension-laden, paradoxical spaces of decision-making trajectories that shape shared governance and purpose in catalysing EE.

Contributions	Contributions to the literature on CIS, collective leadership, and ecosystems by offering a novel synthesis of spatial, relational, and processual perspectives of CIS as enablers of collective leadership in catalysing EE.	Identification of liminal in-betweenness as a necessary state in how individuals mentally enter and inhabit a threshold for creating space for collaborative innovation, comprising the tensions and different perspectives of actors who enter the space, thus creating an opportunity for sensemaking, a shared view, and learning. Using a micro-foundation perspective and a narrative approach, we highlight individual perceptions and experiences, offering a novel lens on the emergence of collaborative innovation.	Contributions to the ecosystem literature by examining a multistakeholder arrangement in organising for EE involving diverse actors. The paradox lens offers a novel view of the involved tensions. Extension of the microfoundations perspective and response to the call for firm-level theorising by highlighting the role of focal individuals in driving EE. A methodological contribution through composite narratives (Willis, 2018, 2019), which convey the contextual nature of dilemmas and paradoxes while preserving the richness of the narrative data and interviewee anonymity.

5 Discussion & conclusions

This concluding chapter proceeds as follows: First, I summarise the objectives of this study. Second, I answer the research questions. Third, I reflect on the overall contributions of this study to theory and practice. Finally, I outline the key limitations of the research and propose future research avenues that address these limitations.

The theoretical purpose and practical relevance of this doctoral study arise from the limited attention paid to individuals' lived experiences and the meanings they attribute to creating CIS, particularly concerning how such spaces can contribute to the emergence of ecosystems. CIS are central in initiating cross-sectoral collaboration (Peschl & Fundneider, 2008, 2014; Tsoukas, 2009; Arena et al., 2017; Bessant, 2020) and thus, they may have an important role in catalysing EE to address complex systemic challenges in the search for more innovative solutions. CIS can provide a key arena for individuals who come together for this purpose. While recent research in EE (e.g., Felin & Foss, 2023), collaborative innovation, and innovation spaces (Boutillier et al., 2020; Caccamo, 2020; Doloreux et al., 2023) has acknowledged the impact of individuals on these processes, the experiences of these individuals remain underexplored (e.g., Yström & Agogué, 2020; Ollila & Yström, 2021). Moreover, the role of CIS in catalysing EE has been overlooked in the literature, and there remains a lack of empirical research on creating CIS (Røhnebæk, 2020; Yström & Agogué, 2020; Klooker & Hölzle, 2024).

Grounded in the theoretical and methodological underpinnings of this dissertation, **the main objective was to advance understanding of the role of CIS and individuals' different meanings of creating space for collaborative innovation to catalyse EE**. To capture the richness and complexity of the phenomenon, I approached the study through the lenses of liminality and paradox theory, adopting an interpretative, narrative methodology. Embracing narrative as a meaning-making structure for participants' actions and lived experiences (Polkinghorne, 1988) allowed me to explore nuanced ways in which individuals construct, interpret, and make sense of their involvement in, and the meanings they assign to, CIS.

The first objective of this dissertation was to develop an understanding of the role of CIS in collective leadership and catalysing EE (Publication I). The conceptual overview of Publication I highlights how the situational embeddedness and dynamics of CIS create and shape a living relational space of a social system**. The second objective** was to explore and deepen the understanding of the conditions of being at the threshold of collaborative innovation (Publication II). **The third objective** was to empirically investigate the challenges and tensions of organising for EE (Publication III). Empirically, Publications II and III show high levels of experienced uncertainties, ambiguity, and tensions in initiating multistakeholder collaboration. These findings draw attention to three interrelated core meanings attached to creating CIS to initiate collaboration and catalyse EE: CIS as enablers, transitional in-between, and tension-laden processes.

5.1 Answering the research questions

The research questions examined in this dissertation are answered through the findings in the publications (Table 4) and the theoretical development of this dissertation. Based on the findings in the publications (Table 4) and the theoretical development of this dissertation, the results are synthesised next to answer the three research questions.

RQ1: *What role do CIS play in catalysing EE?*

First, CIS can be understood as enablers (Publication I). Defined as temporary, transitional spaces of being and becoming in Publication I, CIS situate actors' relation(ship)s and interactions deeply in a particular setting. Thus, CIS allow collective leadership to be not only enacted by individuals but also co-created through situated interaction with collective attention, intention, and relational presence. Therefore, such leadership can emerge relationally rather than positionally (Drath, 2001; Uhl-Bien, 2006; Drath et al., 2008; Ospina, 2017). In this dissertation, a CIS is understood as a *social field* (Scharmer & Pomeroy, 2024), the interior dimension of a system that encompasses collaboration, relationships, and interactions. In this interior dimension, the 'whole is viewed as an emergent entity worthy of attention and its own specific forms of inquiry' (Schaecrmer & Pomeroy, 2024, p. 26). Understanding the collective interior dimensions of social systems, beyond visible relational patterns, highlights the social field where these patterns originate and potential futures are sensed (Scharmer & Pomeroy, 2024). This understanding of collective interior dimensions of social systems is central to collective leadership, which is grounded in relational dynamics within social systems (Ospina, 2017). Such systems are alive and continuously engaged in processes of being and becoming through relationships and interactions (Bradbury & Lichtenstein, 2000) with oneself, others, and world. Here, world refers to the situational context and the interorganisational, cross-sectoral reality in which individuals are embedded. Recognising both the inner and outer dimensions of these relational experiences is essential for realising CIS transformational potential. Furthermore, situational embeddedness in CIS refers to how interactions, decisions, and innovations are influenced by the dynamic relational and contextual conditions of a specific moment in space and time. This perspective views space as a catalyst that co-shapes encounters and highlights the importance of the social field and full presence in the moment (Scharmer & Kaufer, 2013; Scharmer & Pomeroy, 2024) for sensing and *presencing* (Scharmer, 2001; Senge et al., 2004) emerging opportunities. CIS can enable and support collective presencing that fosters heightened relational awareness, enabling participants to attune to one another and connect across organisational, sectoral, or disciplinary boundaries. In such moments of collective attention and shared intentionality, leadership can emerge collectively rather than being exercised by any individual. Collective leadership is thus not limited to cognitive alignment around shared goals. However, it is enacted through embodied presence within CIS, where participants' awareness and intentional action coalesce into a living, relational process.

Furthermore, conceptualising CIS ***as aliminal, transitional in-between space*** allows the psychologically informed concept of semiotic borders to illuminate the dynamic and processual nature of narrative sensemaking more thoroughly. Therefore, it also sheds light on the concept of situational embeddedness in CIS and the dynamics shaping the processes of being and becoming—how individuals relate with themselves, others, and world—as discussed in Publication I and empirically studied in Publication II.

RQ2: *What is the threshold for creating space for collaborative innovation, and how does liminality as a lens help us make sense of this threshold?*

Second, creating a CIS is a transitional in-between process (Publication II) as individuals navigate uncertainty between three dimensions of liminality: confusion–clarity, isolation–communal, and stagnation–movement. Drawing on the concept of liminality, it is suggested that individuals suspend established roles, routines, and organisational boundaries. Thereby, they create a threshold that allows them to step outside familiar contexts and reconfigure their relationships. In these in-between spaces, identities are in flux, structures are unsettled, and new possibilities can be enacted. The transitional nature of CIS thus reflects their role as sites of becoming, where novel forms of collaboration and ecosystem trajectories emerge through situated encounters. To sum, Gergen's (2010) framing of *becoming-with-others* as confluence captures the liminal coming-together of actors in transitional spaces, where identities, roles, and possibilities are unsettled, and where relational leadership and paradoxical tensions are worked through. In this light, CIS can be understood not as stable entities but as fluid relational configurations in a temporal process that continuously re-form as each element and actor is an arrested moment, 'vector' across time (Gergen, 2010, p. 10). Seen this way, CIS reveal their generative potential as sites of becoming, where innovation and EE are catalysed through relational confluence.

RQ3: *How does paradox theory, as a lens, help us make sense of tensions that relate to decision-making trajectories in organising for EE?*

Third, creating CIS is a tension-laden process in which paradoxical demands and competing perspectives converge. Within these spaces, individuals encounter contradictions, such as the pull between stability and change, exploration and exploitation, or individual and collective interests, that cannot be easily reconciled but must be navigated (Smith & Lewis, 2011; Cunha et al., 2023). Rather than viewing such tensions as purely problematic, they can be reframed through critical self-reflection and social reflection, enabling actors to expand their assumptions and practices so that opposites are seen as complementary rather than irreconcilable (Denison et al., 1995; Quinn et al., 1994). A paradox mindset (Miron-Spektor et al., 2018) is crucial, allowing individuals to value contradictions and integrate competing demands. Leaders and participants who embrace these dynamics can enact both/and behaviours (Zhang et al., 2015), foster innovation (Wei et al., 2023), and help groups navigate systemic uncertainty (Waldman & Bowen, 2016). Still, tensions remain persistent and can never be fully resolved; they must be continually negotiated, which makes CIS both a challenging and generative context for collaboration and EE (Cunha & Putnam, 2019; Gaim et al., 2021).

To summarise, the main objective of this dissertation was to advance understanding of the role of CIS and individuals' different meanings of creating space for collaborative innovation to catalyse EE. The findings highlight three interrelated core meanings attached to creating CIS to initiate collaboration and catalyse EE: CIS as enablers, transitional in-between, and tension-laden processes. In Figure 11, I summarise and illustrate these findings in relation to the publications and research questions of this study.

Figure 11 summarises and illustrates the role of CIS and individuals' different meanings of creating space for collaborative innovation to catalyse EE. Thus, the figure illustrates the findings in relation to the publications and research questions of this study.

The role of CIS in catalysing EE and individuals' different meanings of creating space for collaborative innovation

RQ1: What role do CIS play in catalysing EE?

The role of CIS as an enabler

Publication I

Integrates and extends existing research on CIS, collective leadership, and EE by offering a novel synthesis of spatial, relational, and processual perspectives. By framing CIS as liminal, the study deepens understanding of leadership as a state of becoming, rather than a fixed role, extending research on liminality in organisations. The concept of situational embeddedness illuminates how different relational and contextual conditions in CIS can enable collective leadership in catalysing EE.

RQ2: What is the threshold for creating space for collaborative innovation, and how does liminality as a lens help us make sense of this threshold?

Creating CIS is a transitional in-between process

Publication II

Offers a three-dimensional conceptualisation of a liminal space as a threshold for collaborative innovation. Identifies liminal in-betweenness as a necessary state in how individuals mentally enter and inhabit a threshold for creating space for collaborative innovation, each bringing their own meanings to the process.

RQ3: How does paradox theory, as a lens, help us make sense of tensions that relate to decision-making trajectories in organising for EE?

Creating CIS is a tension-laden process

Publication III

Integrates the ecosystem literature and microfoundations of paradox theory to explain the nature and meanings of the underlying tensions for the focal individuals and their governance decision-making trajectories in organising for EE.

Figure 11. The role of CIS and individuals' different meanings of creating space for collaborative innovation to catalyse EE

These findings suggest that CIS can be significant not because they provide predetermined solutions, but because they shape environments in which uncertainty, ambiguity, tensions, and transitional states become productive. CIS matters because it enables actors to reconfigure relationships, experiment with new roles, and make sense of emergent trajectories of ecosystem formation.

5.2 Theoretical contributions

In this section, I present the key theoretical contributions of this dissertation, derived from the synthesis of Publications I–III.

This dissertation's theoretical contributions intersect with literature streams from collaborative innovation, organisational space, collective leadership, EE, and microfoundations, while shedding light on the early phases of creating space for collaborative innovation. Building on Gherardi's (2023) processual understanding of space as relationally and materially enacted, this study contributes conceptually by advancing an understanding of CIS as a dynamic, processual and relational phenomenon. This perspective shifts attention from fixed structures or predefined entities to the ongoing interactions, relationships, lived experiences and meaning-making through which such spaces come into being and enable collective action (Emirbayer, 1997; Tsoukas & Chia, 2002). It further expands the microfoundations literature (Abell et al., 2008; Felin et al., 2012) by suggesting meaning-making, not just action or cognition, as foundational to initiating collaborative innovation and catalysing EE. Finally, it contributes to ecosystem scholarship by offering a nuanced account of how individual experiences, embedded in liminality, (paradoxical) tensions, and relational interaction, shape the enabling conditions of ecosystem transformation, including EE.

The first contribution of this study relates to the findings in Publication I, which conceptualises CIS as temporary, transitional spaces that enable collective leadership to emerge through situated interactions. As this study offers a novel synthesis of spatial, relational, and processual perspectives by conceptualising CIS as temporary, transitional spaces of being and becoming, it contributes to relational collective leadership theory (e.g., Uhl-Bien, 2006; Ospina, 2017) by clarifying how spatial and temporal dimensions shape leadership emergence. By framing CIS as liminal, the publication deepens understanding of leadership as a state of becoming and connects liminality in organisations (Küpers, 2011; Tagliaventi, 2019) to the processual ontology of relational leadership (cf. Chia, 1995; Crevani et al., 2010; Ospina, 2017). Furthermore, the concept of situational embeddedness adds conceptual clarity to the role of recursive space in collaborative innovation (Yström & Agogué, 2020) and how relational and contextual dynamics shape leadership emergence, offering a nuanced understanding of how individuals' relational experiences may influence systemic transformation.

The second contribution concerns the transitional in-betweenness of CIS, which is explicated in Publication II. Contributing to the collaborative innovation and organisation space literature, the study proposes a three-dimensional conceptualisation of liminal space as a threshold for collaborative innovation. Unlike previous research focusing on physical or interorganisational spaces, the study highlights liminal in-betweenness as a necessary mental and social state for creating CIS. This ambiguous yet meaningful threshold enables sensemaking, shared understanding, and learning among diverse actors and can foster new social forms, norms, and activities (Turner, 1979; Küpers, 2011; Söderlund & Borg, 2018).

The third contribution is related to the tension-laden meaning of creating CIS, as explicated in Publication III. The criticality of early decisions in EE (Thomas et al., 2022) calls for greater insight into what ecosystem actors negotiate, the choices they face, and how the presence or absence of a central orchestrator influences the process. We suggest that mutual perceptions of organising for EE (Drori & Lavie, 2024) are shaped not only by tensions in multistakeholder settings but also by how actors recognise and respond to alternative decision-making trajectories—formed either because of or despite individual tensions. Our findings demonstrate how latent tensions become salient (Smith & Lewis, 2011) when actors reflect on their immediate context in narrative interviews, revealing pain points (Daymond et al., 2023) and contradictions such as inclusivity vs. exclusivity, voluntary vs. committed engagement, and top-down vs. bottom-up leadership. This finding extends Drori and Lavie's (2024) notion of organisational bottlenecks by showing how individual-level tensions may also underpin such bottlenecks.

Furthermore, awareness of paradoxes and dilemmas can help actors assess whether tensions are generative or paralysing (Cunha et al., 2023; Berti & Simpson, 2021). This dissertation contributes to paradox microfoundations research (e.g., Miron-Spektor et al., 2018) by suggesting that actors capable of both/and thinking, able to accept and release formal structures (Lê & Pradies, 2023; Lewis & Smith, 2022), are more able to navigate the fluidity of organising (Schreyögg & Sydow, 2010). Balancing formal and informal elements and allowing for postponed decisions can create space for reflection, though excessive delay risks stagnation.

Methodologically, this dissertation contributes by employing composite narratives (Willis, 2018, 2019) to surface contextual tensions while preserving richness and anonymity. Narrative interviews (Riessman, 2008) reveal how contradictory demands and tensions are intertwined in decision-making. Focusing on a multistakeholder setting in organising for EE (cf. Dattée et al., 2018; Thomas et al., 2022) advances a paradox and microfoundations perspective, aligning with calls to theorise how focal individuals shape EE (Felin & Foss, 2023; Barney & Felin, 2013). The second methodological contribution draws on a microfoundations perspective and narrative inquiry. While prior studies have emphasised organisational and interorganisational levels (Lowik et al., 2017; Mazzucchelli et al., 2019), this study focuses on individual sensemaking narratives (e.g., Weick et al., 2005; Brown et al., 2008) to shed light on how collaborative innovation emerges. Adopting this approach offers new insights into how individuals perceive, experience, and navigate the early stages of creating space for collaborative innovation, underlining the value of allowing time and space for diverse views while anchoring collaboration to a shared vision (cf. Mazzucato, 2021).

5.3 Implications for practice and policy

In addition to its theoretical implications, this dissertation and its accompanying publications offer several practical implications for managers and policymakers.

First, understanding how individuals construct meaning and navigate collaboration in the earliest settings of creating CIS can offer practitioners and leaders deeper insight into the relational and contextual dimensions of organising, supporting more innovative approaches to leading cross-sectoral collaboration.

Second, conceptualising the threshold for collaborative innovation through the three dimensions of liminal space enhances practitioners' understanding of these three approaches to early-phase tensions in initiating collaboration for creating CIS. This early phase is characterised by undefined common goals, roles or an underdeveloped shared understanding of how to develop and integrate the assets to achieve the goals (cf. Attour & Barbaroux, 2016). Thus, navigating it requires patience to maintain the engagement of diverse parties and foster CIS. In contrast to traditional management's emphasis on control and execution, managers should maintain a pace that allows the expression of diverse, ambiguous, and even conflicting issues, thereby enabling collective learning and sensemaking to develop shared understanding (cf. Nonaka and Yamaguchi, 2022).

Third, practitioners, such as managers, policymakers, other convenors, and program designers should recognise, understand, and articulate the tensions they inevitably face when organising for EE. As potential facilitators and bridge-builders, these actors could help shape the inclusiveness of emerging ecosystems and make the promotion of interests and entry decisions more transparent. This study highlights the role of public and third-sector actors in organising for EE, especially in fostering information sharing, situational awareness, and networking. This dissertation helps practitioners in similar settings to identify and reflect on them through the lens of paradox theory. Fostering a shift from either/or thinking to both/and approaches (cf. Lewis & Smith, 2022; Westenholz, 1993) can help prepare for multistakeholder collaboration.

Fourth, I encourage policymakers to consider creating CIS to purposefully catalyse EE, rather than relying solely on bottom-up movements and individuals' passion for their work. Individual actions and interactions at the micro level could then have a stronger impact at the macro level. This may include fostering new cross-sectoral public–private partnerships, business opportunities, or catalysing EE and evolution. In a recent study, Leminen et al. (2025) identified passion as a key yet often overlooked factor in open innovation. They underscored the importance of stimulating formal collaboration, which is a critical driver of successful innovation partnerships. The authors also emphasised that policymakers need to understand how to foster such collaboration and recognise the role of passion in supporting open innovation efforts. While CIS, as in-between spaces, cannot be fully designed in advance since they evolve over time, this dissertation enhances the understanding of their evolving, relational nature. Furthermore, Klooker and Hölzle's

(2024) generative design model shows that organisations and stakeholders can still engage in and shape this emergent process.

Nevertheless, it is important to recognise the boundary conditions of CIS. Leminen et al. (2024) present several conditions, of which those highly relevant to the early phases are strong commitment, trust, and top management support, alongside attention to the socio-material elements of the design process. For example, an overreliance on dominating orchestration at the outset of a multistakeholder innovation project may lead to a mechanistic matching of participants to collaboration structures (Reypens et al., 2021). Such early control can restrict flexibility and hinder the natural dynamics of collaboration. As discussed in Publication III, organising efforts must therefore navigate a series of tension-laden trade-offs in balancing the emergent process of creating CIS. These include decision-making trajectories between inclusive and exclusive participation, regulated and non-regulated agenda setting, coordinated and uncoordinated collaboration, defined and undefined roles and responsibilities, ad hoc and committed participation, and designated and voluntary resources.

Finally, this dissertation's key findings indicate that the meanings attributed to CIS influence how the processes for creating such spaces should be approached and what kinds of spaces, together with their intended meanings, should be pursued to ensure that the opportunities they afford can be fully realised. Thus, the findings contribute to policymakers' full appreciation of the enabling, liminal/transitional, and tension-laden aspects of initiating cross-sectoral collaborations to create CIS.

5.4 Limitations and future research avenues

Despite the contributions and implications, this dissertation has several research limitations that suggest avenues for future research. Each publication included in this research has its limitations, which are briefly addressed in this chapter and fully stated within the individual articles. Throughout the research, my primary approach to managing these limitations has been to carefully consider the scope of inferences that can be drawn from the findings. While this dissertation does not provide direct evidence of EE, it highlights the liminality (Turner, 1974) and tensions involved in creating CIS as precursors for EE. The findings connect the process of creating space to collective efforts that enable EE, complementing prior research by shifting the focus from individual determinants to collective processes and dynamics.

A key limitation of Publication I is its focus on how CIS enable collective leadership, without addressing the well-documented barriers and tensions that may hinder collaboration (e.g., Adibe et al., 2024; Ollila & Yström, 2025). Acknowledging this bias, the study aims at conceptual exploration through the integration of theoretical perspectives (Barney, 2018) rather than solving practical innovation challenges. Nonetheless, it offers novel insights into how CIS can foster relational, collective leadership to catalyse EE. Future research could empirically extend insights into CIS and collective leadership, especially in cross-sector partnerships and EE. Longitudinal studies employing process theories may help clarify how ecosystems emerge and evolve, with a particular attention to relational dynamics. Philosophical inquiry into the various forms and dimensions of CIS could deepen understanding of the dynamics underlying EE.

Publications II and III are exploratory qualitative studies conducted in Finland, a small, non-hierarchical, highly digitised country. Although the cases were conducted on digital platforms and tools, the media were not the focus of this research. While the context-specific nature of these studies limits generalisability, it also enables an in-depth understanding of the focal case. The findings may not be applicable to more hierarchical or less digitised environments, but they are relevant in contexts where individuals operate in ambiguous, interorganisational roles. The strength of the studies lies in their access to the early stages of the DE initiative. However, the timing and specific societal period (COVID-19) may have biased participants toward sharing positive expectations. Nevertheless, Publication III provides novel insights into the tensions individuals face when organising for EE and how those tensions influenced their decision-making trajectories.

Future longitudinal, micro-level studies could examine sensemaking, the emergence of collaborative innovation, and the roles that individuals, power relations, and organising bodies play in initiating and sustaining innovation, as well as how they influence the management of tensions inherent in the EE process. Further research on organisational practices that support balancing paradoxical tensions would shed light on how to navigate the complexities in organising for EE. Studies are also needed on temporality in liminal spaces, particularly those examining practitioners' mental models and leadership practices, to reveal relational mechanisms, allow for diversity in perspectives, and help sustain motivation for engaging in initiating collaborative innovation to catalyse EE. Furthermore, future research could apply Juarrero's (2023) theory of constraint-based emergence, which reframes microfoundations by seeing the 'micro' as emerging from relational contexts and constraint regimes rather than discrete, predetermined individuals. This perspective can inform studies on how enabling and governing constraints shape the relational dynamics of catalysing ecosystems and how identities, relationships, and structures co-evolve across levels and timescales. Narrative approaches could be particularly valuable for capturing how such dynamics are experienced and enacted in practice.

Although our narrative interviews capture tensions in organising for EE as they unfold rather than retrospectively, our methodological approach does not allow for capturing the process longitudinally. Future research could adopt a (narrative) process study design, following informants' experiences and decision-making throughout the transition from inception to emergence and further ecosystem evolution. Finally, another methodological limitation of the interpretative approach concerns the role of materiality in Publications II and III, which frame the creation of space more as a mental process (a liminal experience) or a psychological experience (tensions) than as one reflecting material aspects. Although virtual environments such as the DE initiative can facilitate broad participation and reduce geographical constraints, they also alter interactional dynamics, potentially limiting the observation of non-verbal cues, spontaneous encounters, and informal exchanges that often shape meaning-making in physical settings. These characteristics may have influenced how the participants narrated their experiences. While this dissertation emphasises a meaning-centred perspective on organisational life, scholars have highlighted the importance of incorporating material aspects, such as objects, spaces, and bodies, as integral to organising (Ashcraft et al., 2009). This broader recognition is evident in Publication I, where CIS are described as situationally embedded settings that recursively shape the self, others, and world as a living, relational social system. In this sense, CIS can be seen as integrating both the material dimension of space and the relational dynamics of social interaction.

5.5 Conclusions

Advancing knowledge of creating CIS is central to understanding how such spaces contribute to EE. Existing ecosystem research has primarily focused on firm-level perspectives or orchestrator firms, with limited attention to individuals' lived experiences and the meanings they attach to the process, particularly while they navigate the ambiguous and uncertain early phases of initiating and catalysing ecosystem formation.

Grounded in a processual and relational ontology, this dissertation addresses the outlined research gaps by exploring the role of CIS and individuals' experiences with a particular focus on the meanings attributed to CIS in initiating collaboration to catalyse EE. The specific research objectives of this study are achieved through the findings of Publications I–III and their synthesis in response to the research questions.

This dissertation applies a qualitative research design to investigate how individuals make sense of initiating CIS in the early phases of ecosystem formation. Using an interpretative, narrative approach, the study focuses on recognising the meaning of individual experience in real-life contexts through narrative interviews, narrative data, observations, and conceptual analysis conducted across three article-based publications to offer an in-depth understanding of the research topic.

The findings indicate that CIS are not only transitional and temporary spaces but also deeply embedded in relational and situated dynamics. Understanding the tensions and liminal dimensions of these spaces helps participants navigate uncertainty and co-create clarity, direction, and community. Furthermore, the study shows that creating CIS is a situated, relational, and emergent process that carries significant meanings for those involved. Navigating from the in-between highlights how individuals' diverse interpretations of creating CIS manifest as enabling, liminal/transitional, and tension-laden processes in creating conditions for EE.

In summary, this dissertation first offers new theoretical knowledge about the role of CIS as enablers of relational, collective leadership in catalysing EE (Publication I). Second, it sheds light on how CIS are initiated and sustained, specifically, what happens before the possibility of collaborative innovation (Publication II). Third, the dissertation provides a new empirical understanding of the challenges and tensions involved in the process of how ecosystems come into being (Publication III). Finally, the dissertation outlines the implications of CIS for initiating collaboration at the earliest stage of EE, drawn from the findings of this research.

In conclusion, this dissertation provides several implications for research, policy, and practice for fostering CIS as conditions for EE. It also acknowledges key limitations of the study and proposes avenues for future research on the situated, relational, and emergent nature of collaborative innovation and early ecosystem formation.

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