

Creating value through inter-organizational collaboration: A collective action perspective

Juri Matinheikki

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Abstract

Inter-organizational collaboration plays a pivotal role not just in creating business value but solving contemporary grand challenges on the societal level. However, collaboration has many barriers which are often social rather than technological. Existing practices, regulative pressures, social norms, beliefs, and other institutional mechanisms may come to hinder collective action among organizations. Thus, collaboration and collective action often require institutional change.

The purpose of this dissertation project was to examine the empirical challenge of how multiple diverse organizations can jointly create value. The four published empirical articles form the basis of this dissertation by providing different conceptualizations of the empirically-grounded development processes towards inter-organizational value creation. To integrate and synthesize the findings of the four articles, the compiling part then adopts a collective action perspective, which is developed by combining the literatures of behavioral theory of collective action and neo-institutional theory of organization.

The collective action perspective suggests that institutional change towards inter-organizational value creation requires actors to solve the second-order collective action problem, which means that establishing institutions that support collective action in fact requires collective action. As the outcome of the synthesis, this dissertation delineates the developmental process of collective action systems showing that solving this paradox requires strategic actions from elite actors with high social positions that grant them the reflexive capacity to deviate from existing institutional constraints. These actors act as mobilizers by forming the initial frame or vision of change, which is then, through a process of negotiations among multiple actors, refined into a system-level goal having a practical task-specific dimension coupled with symbolic representation of the more abstract, yet adherable, vision.

The system-level goal becomes then to drive task-specific actions overcoming the second-order collective action problem by motivating actors to jointly change the localized socio-material environment (e.g. by developing a new technology or a physical asset). These changes connect informal rules with technological environment, redefining mundane patterns of organizing and setting governance mechanisms that further support collective action, thus solving the first-order collective action problem. The new settlement can then be sustained through active institutional maintenance. Findings also indicate that collective action systems are vulnerable to endogenous or exogenous shocks. However, such disruptions are necessary evils, permitting renewal and thus institutional change. Overall, the model provides new insights to a theoretical dilemma of the second-order collective action problem as well as to the important practical question of how organizations can engage in joint value creation.

Keywords collective action; inter-organizational relationships; value creation; institutional change; system-level goal; second-order collective action problem; critical realism

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Yhteistyön rooli organisaatioiden välisessä arvonaluonnissa: Kollektiivisen toiminnan näkökulma

Julkaisija Perustieteiden korkeakoulu**Yksikkö** Tuotantotalouden laitos**Sarja** Aalto University publication series DOCTORAL DISSERTATIONS 82/2019**Tutkimusala** Tuotantotalous**Käsikirjoituksen pvm** 30.10.2018**Väitöspäivä** 18.06.2019**Väittelyluvan myöntämispäivä** 07.03.2019**Kieli** Englanti☐ **Monografia**☒ **Artikkeliväitöskirja**☐ **Esseeväitöskirja****Tiivistelmä**

Erilaisten organisaatioiden yhteistyö on avainasemassa sekä taloudellisen arvon luomisessa että yhteiskunnallisten ongelmien ratkaisussa. Yhteistoiminnalla on kuitenkin monia esteitä ja useimmat näistä ovat pikemminkin sosiaalisia kuin teknologisia. Vakiintuneet käytännöt, sääntely, sosiaaliset normit, uskomukset sekä muut institutionaaliset mekanismit voivat rajoittaa organisaatioiden yhteistoimintaa. Institutionaalinen muutos onkin yhteistoiminnan tärkeä edellytys.

Tämä väitöskirjatutkimus keskittyy empiirisen ongelmaan: kuinka useat erilaiset organisaatiot voivat yhdessä luoda arvoa. Väitöskirja koostuu neljästä julkaistusta empiirisestä artikkelista, jotka tarjoavat erilaisia kuvauksia kehitysprosesseista monen organisaation arvontuotantoon.

Yhteenvedo-osassa pyritään yhdistämään artikkeleiden löydökset kehittämällä ja soveltamalla kollektiivisen toiminnan näkökulmaa. Kyseinen teoreettinen linssi on muodostettu yhdistämällä politiikan tutkimuksen kollektiivisen toiminnan teoriaa sekä organisaatiotutkimuksen uutta institutionaalista teoriaa.

Kollektiivisen toiminnan näkökulman mukaisesti institutionaalinen muutos organisaatioiden välisen arvontuotannon saavuttamiseksi vaatii, että toimijat pystyvät ratkaisemaan toisen asteen kollektiivisen toiminnan ongelman. Toisin sanoen kollektiivista toimintaa tukevien instituutioiden muodostaminen itsessään vaatii kollektiivista toimintaa. Synteesin lopputuloksena muodostettu konseptuaalinen prosessimalli kuvaa kollektiivisen toiminnan järjestelmän kehittymistä. Edellä mainitun paradoksin ratkaisu vaatiikin strategista toimintaa toimijoilta, joilla on vahva sosiaalinen asema antaa heille reflektiivistä kyvykkyyttä poiketa vallitsevista institutionaalisista rajoitteista. Nämä toimijat vuorostaan mobilisoivat muita toimijoita muodostamalla raamin ja vision vaaditusta muutoksesta. Tätä visiota tulee kehittää usean toimijan välisessä neuvottelussa, joiden kautta se jalostuu järjestelmätason tavoitteeksi, jossa yhdistyvät sekä yhteinen visio, että tehtäväkeskeiset tavoitteet välittömän toiminnan ja muutoksen aikaansaamiseksi.

Järjestelmätason tavoitteen tulee ohjata toimintaa, jolla motivoidaan useat toimijat muuttamaan sosio-materiaalista ympäristöään (esim. kehittämällä uusia teknologioita), mikä mahdollistaa toisen asteen kollektiivisen toiminnan ongelman ratkaisun. Sosio-materiaaliset muutokset edesauttavat sosiaalisten suhteiden ja luottamuksen vahvistumista, jotka tukevat yhteistoimintaa ja ratkaisevat ensimmäisen tason kollektiivisen toiminnan ongelman. Uuden järjestyksen ylläpitäminen vaatii jatkuvaa sosiaalista interaktiota. Työssä kehitetty malli antaa uusia näkökulmia toisen asteen kollektiivisen toiminnan ongelman ratkaisuun ja vastaa käytännön ongelmaan monen erilaisen organisaation arvonaluonnista.

Avainsanat kollektiivinen toiminta; yritysten väliset suhteet; arvonaluonti; institutionaalinen muutos; järjestelmä-tason tavoitteet; toisen asteen kollektiivisen toiminnan ongelma; kriittinen realismi

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Acknowledgements

This is the part for nostalgic soul-searching, through which the author explains one's deep motivation to undertake PhD work as well as acknowledges each and every person encountered during that journey. I apologize upfront since, I will not save you from such sentimental reminiscence but use the given space exactly for that since being it cliché or not, I feel that a great bunch of people desire recognition. I will not proceed in any hierarchy of importance but instead provide a brief chronological storyline to explain how it all started and evolved.

Over seven years ago, I was sitting on a bus from Singapore to Kuala Lumpur with an Austrian guy named Stefan Hochwarter, who I had just met couple of weeks ago but who undoubtedly became my life-long friend. We were doing a Master's level exchange semester in National University of Singapore (NUS) and Stefan was focusing on his Master's thesis on health informatics. We shared a common passion for rock climbing and were heading to climb in the famous Batu Caves at the outskirts of Kuala Lumpur. What surprised me during that multi-hour bus trip was that instead of spending his time on non-sense, Stefan was reading a bunch of academic articles for his thesis. Stefan took his academic craft seriously and was thinking about doing a PhD. I had never met a person who was seriously considering having an academic life but somehow it sounded mysteriously cool and the spark inside me was ignited. Hence, thank you Stefan and all the best with your own thesis that you finally got started but without a doubt will finish in no time.

Time in Singapore did not just give me a vision about doing a PhD but it became heavily to affect my research interests. It goes without saying that I am an engineer, actually originally a mechanical engineer who decided to conduct a Master's degree in industrial management. However, during my exchange semester against all the odds I ended up taking a course on economic sociology lectured by a brilliant young NUS professor Kurtulus Gemici. The course was a deep dive into sociological explanations behind multiple economic phenomena ranging from early tribal forms of exchange to the Industrial Revolution and rise (and partial decline) of mass production and M-form organizations as well as all the way to the contemporary information society and the most recent Global Financial Crisis covering works of Marx, Weber, Polanyi, Chandler, Granovetter and many others. I was shocked. Sociological approach could actually give an understandable form to economic phenomena instead of purely mathematical treatment. These classical writings became heavily affect my choices and are

potentially visible, in a form or another, in this dissertation despite the fact that I still position my research somewhere between organization theory and industrial/operations management. However, the apparent leap from being an engineer to being a social scientist has been rocky, yet truly enjoyable, journey.

Eventually, I got back home and continued my studies and part-time work in a mining technology company but inside me I had decided that I want to do a PhD. After finalizing my Master's thesis, I turned down an offer from the company and thanks to great support of my former boss Rami Saario I decided to embrace the unknown and start a 6-month project researcher position in Aalto University hoping that I could eventually secure funding for my PhD. Fortunately, my luck did not fail me but I was offered a full four-year contract to conduct a doctoral dissertation at the Department of Industrial Engineering and Management.

Naturally, I would not had received any offers or even a possibility to do (and more importantly finish) a PhD without my supervisor, professor Karlos Arto. Hence, it goes without saying that Karlos deserves the highest commendations for being the one who educated me, guided me, even saved me (from rejections), and most importantly trusted me in every turn during this journey. You Karlos showed me what passion, dedication and academic craft truly are and I can honestly say that you lead by example. In similar vein, I am truly thankful to my instructor, professor Risto Rajala, for the guidance, co-authorship, offering new opportunities as well as insightful and inspirational chats on various work- and non-work-related topics.

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Then, I would like to thank the different parties who financially supported my work such as the former Finnish Foundation for Technology and Innovation, Finnish Foundation for Economic Education, and Yrjö and Senja Koivunen foundation. Without your great support much of this work would had been left undone.

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Espoo, 22nd of April, 2019

Juri Matinheikki

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List of Abbreviations and Symbols

ALT	Alliance leadership team
AMT	Alliance management team
CEO	Chief executive officer
COO	Chief operating officer
DA	Disabled Association
KPI	Key performance indicator
KRA	Key result area
NGO	Non-governmental organization
NTA	National Transportation Agency
PF	Prosthesis Foundation
SAF	Strategic action field
TOC	Target outturn cost

List of Publications

This doctoral dissertation consists of this compiling part and of the following publications, which are referred to in the text by their numerals (e.g. Article 1 = A1).

- 1.** Matinheikki, J., Artto, K., Peltokorpi, A., & Rajala, R. (2016). Managing inter-organizational networks for value creation in the front-end of projects. Elsevier. *International Journal of Project Management*, 34(7), 1226–1241. ISSN: 0263-7863. <https://doi.org/10.1016/j.ijproman.2016.06.003>
- 2.** Matinheikki, J., Rajala, R., & Peltokorpi, A. (2017). From the profit of one toward benefitting many – Crafting a vision of shared value creation. Elsevier. *Journal of Cleaner Production*, 162, S83–S93. ISSN: 0959-6526. <https://doi.org/10.1016/j.jclepro.2016.09.081>
- 3.** Matinheikki, J., Pesonen, T., Artto, K., & Peltokorpi, A. (2017). New value creation in business networks: The role of collective action in constructing system-level goals. Elsevier. *Industrial Marketing Management*, 67, 122–133. ISSN: 0019-8501. <https://doi.org/10.1016/j.indmarman.2017.06.011>
- 4.** Matinheikki J., Aaltonen K., Walker D. (2019). Politics, public servants, and profits: Institutional complexity and temporary hybridization in a public infrastructure alliance project. Elsevier. *International Journal of Project Management*, 37(2), 298–317. ISSN: 0263-7863. <https://doi.org/10.1016/j.ijproman.2018.07.004>

Author's Contribution

Publication 1: Managing inter-organizational networks for value creation in the front-end of projects

Matinheikki came with the initial idea and the theoretical framing and wrote the first draft, presented at EPOC conference 2015 in Edinburgh, UK, as well as the following revisions. Data were collected jointly by Matinheikki, Artto and Peltokorpi, who also improved the manuscript. Matinheikki analyzed the data. Rajala sharpened the theoretical lens and contributions. Matinheikki led the journal submission and acts as a corresponding author.

Publication 2: From the profit of one toward benefitting many – Crafting a vision of shared value creation

Matinheikki came with the initial idea and the theoretical framing, which were shaped with Rajala. Matinheikki and Peltokorpi collected the data, which Matinheikki analyzed, wrote the first draft which was revised together with Rajala and Peltokorpi before a journal submission. Matinheikki led the journal submission, did a major part of the revising work, and acts as a corresponding author.

Publication 3: New value creation in business networks: The role of collective action in constructing system-level goals

Artto and Peltokorpi thought of the initial idea of the paper. All authors contributed to the collection of data, which Matinheikki and Pesonen analyzed. Pesonen wrote an initial draft, which Matinheikki fully revised before the first submission. Matinheikki led the submission and revised the paper multiple times with great support from Artto. Matinheikki acts as a corresponding author.

Publication 4: Politics, profits and public servants: Institutional complexity and temporary hybridization in a public infrastructure alliance project

Matinheikki thought of the initial idea of the paper and the theoretical framing. Aaltonen collected the majority of data with support from Matinheikki. Matinheikki analyzed the data and wrote the first draft revised by Aaltonen and Walker and presented at EGOS 2017 in Copenhagen, Denmark. Matinheikki led the journal submission and wrote the revisions polished by Aaltonen and Walker, who also provided theoretical background sub-section on project alliances. Matinheikki acts as a corresponding author.

Clarification of Subcontracting

The interviews, used as the primary data source of this doctoral dissertation (i.e. the published articles and this compiling part), were transcribed verbatim by Tutkimustie Oy. I have personally assured the quality of the transcripts and ensured that content of the interviews has not changed during the transcription process.

The language of my dissertation has been checked by Scribendi Editing and Proofreading. I have personally examined and accepted/rejected the results of the language check one by one.

Neither one of these has not affected the scientific content of my dissertation.

Guaranteed by

Juri Matinheikki

1. Introduction

Ever-increasing specialization among organizations has led to extreme divisions of labor in the contemporary world. Vertically integrated corporations have been forced to pave a way to more agile, specialized and even temporary forms of organizing involving multiple independent organizations (Lundin et al., 2015). However, when a monolithic organizational structure is broken down, aligning varying interests of several autonomous organizations becomes demanding (Foss, 2003; Gulati et al., 2012). In parallel, technological and societal problems are becoming increasingly complex, requiring specialized knowledge and integration of the efforts of multiple public, private and non-governmental organizations. Thus, the pivotal empirical paradox is to solve how multiple diverse organizations can jointly create and capture value without the risk of entering into zero-sum situations in which one's benefits become another's sacrifice (Barringer & Harrison, 2000; Möller & Rajala, 2007). Such inter-organizational value creation is not limited to economic value but can be seen to cover all efforts to combine resources, information, and integrated action to meet joint goals towards economic, social, and environmental value (Austin & Seitanidi, 2012). Thus, solving the value creation paradox is relevant also in tackling a wide range of societal challenges, from local demands, such as the provision of effective and efficient health care, to global threats, such as mitigating the causes and effects of the climate change (George et al., 2016; Scott, 2011). The complicated and public nature of these challenges forces diverse organizations such as public, private and non-governmental to look at alternative forms of organizing beyond traditional competitive markets or centralized state bureaucracies. Indeed, looking at alternative means to govern inter-organizational value creation is the foci of this dissertation.

1.1 Creating value through inter-organizational collaboration

I describe inter-organizational value creation as a theoretical concept which aims to explain how organizations engage into collaborative relationships with one another to create and share value beyond arm's length market transactions. Value traditionally is seen as benefits reduced by sacrifices and has been approached from multiple perspectives such economic value and social value (Le Pennec & Raufflet, 2018). In this dissertation, I define value in more broader terms as a balanced outcome when multiple organizations are able to find a solution to a complex problem requiring input from all participating

organizations. Therefore, value creation can be seen as creation of consensus about actions and taking such actions to solve ill-defined problems such as the climate change, organizing health care delivery or construction of complex products and systems. I do not explicitly focus on value capture or appropriation which focuses on problem of benefits sharing but instead assume that in above described situations, it is more beneficial (i.e. value creating) for all participants to solve the problem at hand than not to solve it. For instance, in delivery of health care services reaching no consensus (i.e. no services delivered) will lead to sub-optimal situation for all the parties. Similar logic applies to more global problems such as the climate change since leaving the issue unsolved will arguably create unmeasurable losses to all actors.

Inter-organizational value creation has been approached from multiple angles and by different disciplines of management and organization research including but not limited to research on social networks in organizational sociology (Powell, 1990; Uzzi, 1997), business network management in industrial marketing (Möller & Halinen, 2017), management of innovation networks (Aarikka-Stenroos et al., 2017; Dhanaraj & Parkhe, 2006), strategic management with its specific focus on alliances (Gulati & Singh, 1998; Das & Teng, 2000) and more recently research on business ecosystems (Clarysse et al. 2014). Despite their differences, the common dilemma between these vivid streams of literature seems to be the governance of relationships between multiple organizations with diverse interests. In network management literature the burning topic during the past two decades has been that could networks be managed and how does their management differ from the management of a hierarchy (Järvensivu & Möller, 2009). In similar vein, strategic management, having its roots in organizational economics, has focused on contracts and ownership structures as means to govern alliances and joint ventures (Parkhe, 1993; Kim & Mahoney, 2005). Organizational sociology has taken more socialized view when focused on inter-personal relations (i.e. embedded ties) as means of governance of business networks (Uzzi, 1997). More recent research especially on management and orchestration of innovation networks has then aimed to combine these aspects and emphasize the meaning of informal or social mechanisms of governance such as shared agenda and goal setting which seem relevant especially in innovation networks which need to deal with ill-defined problems (Möller, 2010; Ritvala & Salmi, 2010). In such a dynamic context, it becomes nearly impossible to set up contract-based governance structures *ex ante* due to the high ambiguity and uncertainty of the problem at hand (i.e. a novel product or service to be developed).

The very nature of such ill-defined or wicked problems mandates often inputs of multiple heterogenous organizations, in the forms of material and immaterial resources such as special equipment as well as knowledge and capabilities. Majority of the past literature has revolved around a focal organization, or a lead firm, who determines who to include into solving these issues and how to compensate these efforts (Hinterhuber, 2002; Järvensivu & Möller, 2009; Dhanaraj & Parkhe, 2006). However, this is not always the case in solving grand challenges, such as the climate change or delivery of complex infrastructure

systems, which can be seen to be polycentric by their nature meaning that decision rights over the potential solution had to be shared between multiple independent organizations (Ansari et al., 2013; Gil & Pinto, 2018). This can be seen to resemble a common-pool resource type of a scenario which is prone to so called tragedy of commons used to describe the very situation in which self-interested actions lead to sub-optimal outcomes on the system level, such as a network or even global economy (Hardin, 1968). Therefore, the key dilemma is how to mitigate self-interested actions and instead spur *collective action* to meet common higher or system-level goals (Ostrom, 1990). Therefore, one possible lens to this complicated problem of benefit creation and sharing inherent to inter-organizational value creation is provided by theory of collective action, which assumes that there exist various formal and informal mechanisms to motivate diverse actors to engage in collective action, referring to action among multiple actors (individuals or organizations) to achieve a common higher-level goal (Dietz et al., 2003).

The purpose of this dissertation project has been to examine the empirical challenge of how multiple diverse organizations can create value jointly. Therefore, this dissertation, consisting of four individual articles and this compiling part, first aimed to explore inter-organizational value creation in the light of above-mentioned streams of literature, mainly network management, in order to develop new understanding about different mechanisms through which value creation among multiple actors could be managed. These attempts have led to the publication of four articles deriving insights from three empirical cases. Two of the cases are localized inter-organizational health care networks in Finland and the third is a temporary infrastructure alliance set to construct a complex highway tunnel. Thus, the articles approach the empirical phenomenon of value creation from different theoretical perspectives and provide diverse conceptualizations of the developmental processes towards inter-organizational value creation.

Second aim, tackled in this compiling part, has been to move forward and describe inter-organizational value creation to resemble a common-pool resource or common property situation in which value creation cannot be governed only through market transactions but requires setting up informal governance mechanisms to avoid tragedy of commons. Thus, my aim is to develop a collective action perspective as one complementary theoretical path, which could shift the emphasis from focal firm governed scenario (e.g. governance through power and contracts) to a norm-based governance more suitable to complex and polycentric multi-actor scenarios of value creation. I will explain the fundamental idea of the collective action perspective in the following.

1.2 Collective action perspective

Theoretical discourse of collective action has been led by political scientists and is typically focused on provision of public goods and governance of common-pool resources such as common pastures or fishing waters (Coleman, 2009;

Hardin, 1968; Olson, 1965). Characteristics of such arrangements are that provision (or governance of usage) of a certain common good requires inputs from multiple heterogeneous actors but these inputs are difficult to govern through written contracts (e.g. due to high ambiguity of the good) and that these outcomes of goods provision tend to be excludable meaning that benefits created can be enjoyed by multiple parties (Ostrom, 1998). This forms room for a collective action problem (i.e. free-riding or shirking) when actors are self-interested and have divergent goals. Early economic perspective (e.g. Hardin, 1965; Olson, 1968), representing the first generation of collective action theory, suggested that property rights over the public good should be defined through state induced formal governance mechanisms or alternatively by privatizing the goods. However, extensive field work in rural societies (see e.g. Ostrom, 1990) has shown that collective action is possible without state intervention and contractual governance, when actors are able to negotiate over common goals and set up social norms to govern organizing towards meeting these goals. Goals, defining (collective) actions, are indeed constructed through situated social interaction and are strongly bound to the values of the social context, (Meyer and Rowan, 1977). Such arguments have formed room for the behavioral approach, leading to the second-generation collective action theory, which ceases treating humans as purely rational utility maximizers but assumes bounded rationality (Ostrom & Ahn, 2009). This line of study has come to acknowledge the role of norms, values and other social institutions supporting reciprocal action as potential mechanisms to self-govern collective action (Adger, 2003, Axelrod, 1986; Ostrom, 2000).

In parallel, the research stream of organizational institutionalism, referred also as the neo-institutional theory (Greenwood et al, 2008), has long argued that an organization's embeddedness into its institutional environment (i.e. an organizational field) affects its behavior when it needs to seek for social acceptance or legitimacy by maintaining consistency with the prevailing norms, taken-for-granted beliefs, practices and other institutions (Scott, 2001). Therefore, an institutional environment may come to define the level of collaboration between organizations (Philips et al., 2000) and thus enable or constrain collective action. One constraint or enabler may derive from distinctive institutional logics, which can be seen as sets of rules defining legitimate action (Thornton et al., 2012). When multiple actors, adhered with different logics, try to unify their efforts to act collectively, conflicts are expected when divergent and even competing prescriptions of legitimate action co-exist. (Greenwood et al., 2011). Therefore, to set and achieve common goals through collective action, the actors have to engage into negotiations to overcome mundane contradictions and find a common tone and vocabulary (Philips et al., 2000). By collectively constructing the rules and norms, divergent actors may be capable of governing collective action (Ostrom, 2000), and such actions can then lead to new institutionalized and more collaborative forms of organizing (Rao et al, 2000).

Despite the seminal efforts to incorporate behavioral aspects into the rational choice theory of collective action (see e.g. Ostrom 1998), the attempts to

combine collective action with the contemporary views of organizational institutionalism have remained scarce (for exceptions see e.g. Hargrave & Van de Ven, 2006; Rao & Greve, 2018). This seems surprising, considering neo-institutional theory's increasing focus on institutional change, a key mechanism of evolutionary development of norms governing collective action (Ostrom, 1998), through agentic behavior of individuals and groups (see e.g. Battilana et al., 2009; Lawrence et al., 2013). Still, limited attention has been paid to how such actions may be used to spur collective action to align the interests of many and achieve greater societal goals (for excellent exceptions see e.g. Ansari et al., 2013 and Holm, 1995). This limited past research has depicted the role of collective action as two-fold.

Firstly, collective action is seen as desirable characteristic or equilibrium state of a social system, meaning that when certain formal and informal governance mechanisms are in place, the system spurs collective action creating benefits to the system as a whole (see e.g. Ostrom, 1990 for localized examples; Ansari et al, 2013 for a transnational case). Collective action can hence be depicted as an (often desirable) end in its own right.

Secondly, collective action is assumed to change the existing social structure, when multiple actors unite behind a novel frame of action (Hargrave & Van de Ven, 2006; Fligstein & McAdam, 2012). Therefore, collective action can be seen also as a means to change the system. Such paradoxical nature of collective action is referred to as *the second-order collective action problem* (Ostrom, 1998), which can be seen as a special case of paradox of embedded agency (Holm, 1995), questioning how actors whose actions are constrained by the existing social structure can come to change the very structure. Respectively, the dilemma with the second-order collective action problem is how actors embedded in the structure constraining collective action can mobilize collective action to change system to spur more collective action. Clear theoretical solution to such special case of paradox of embedded agency indeed seems to be missing also in aforementioned literature discussing inter-organizational value creation, which has remained surprisingly silent on theorizing about how actors willing to engage into inter-organizational value creation can actually break free from the constraints of the current non-cooperative social structures.

In this compiling part, I aim to illustrate that overcoming the second-order collective action problem is possible and results in setting up a collective action system which can be seen as a meso-level social order that serves a shared interest or a goal beyond goals of single organizations or individuals. Such approach can be called as a neo-institutional perspective on collective action but for sake of simplicity I refer to it as a *collective action perspective* by which I mean the overall lens developed in this dissertation to describe inter-organizational value creation as a public good or common-pool resource type of situation subject to collective action problem. The collective action problem could then be solved by setting supporting institutional structure (i.e. a collective action system) guiding collaborative behavior among organizations. The neo-institutional approach, having extensive research tradition on

institutional change, allows better accounting the prerequisites and mechanisms for change (i.e. overcoming the second-ordered collective action problem) required to set up such system.

Hence, by my definition a collective action system, as a meso-level social structure, consists of multiple actors whose inputs are required to jointly solve a common problem as well as collection of different formal and informal mechanism (i.e. institutions) jointly set to govern collective action towards the common goal. This definition also allows the nested nature of the system (Holm., 1995; Fligstein & McAdam, 2012), meaning that collective action systems themselves consist of multiple sub-systems such as individual organizations but simultaneously are horizontally and vertically connected to other systems (such national and transnational levels or other local industries). Overall, the aim here is to illustrate how diverse actors can set up such collective action system to reach a common goal (i.e. a solution to a common problem) which creates value to all participants.

1.3 Objectives and research question

The overarching research question guiding this dissertation work has been how multiple diverse organization can jointly create value. This question has taken more nuanced and empirically grounded forms in the four papers written and published during the dissertation journey such as: How can project management facilitate value creation through emergent inter-organizational networks in the front-end stage of projects (Article 1)? How can multiple organizations collectively form a system-level goal and how does this affect new value creation at the level of the whole network (Article 3)? Hence, each article forms an independent study and therefore contribution of its own. In this compiling part, I will review and summarize the findings of these studies and their specific contributions (see Section 2) and discuss also their overall contribution (see Section 7).

However, this compiling part also takes a step further by developing the aforementioned collective action perspective (on inter-organizational value creation) by combining insights from theory of collective action theory and neo-institutional theory and utilized as an integrative lens to further synthesize the findings of the four articles. Therefore, this compiling part, especially from Section 3 onwards, can nearly be read as “the fifth article” with its own specific research question, literature, methodology, findings as well as contributions.

The rationale and motivation for adopting such a new perspective instead of such summarizing the articles is that during this dissertation journey (as explained more in detail in the following sub-section), I became to see, due to the aforementioned reasons, that creation of joint value among multiple organizations in general resembles a collective action problem or the tragedy of commons. In such situation multiple organizations have to be included into solving a common problem and due to the complexity of the problem, the solution cannot (or at least it would be difficult) governed through market

transactions or contracts but instead require more informal mechanisms to govern for collective action. Hence, setting up such a system requires solving the second-order collective action problem.

Despite some initial efforts (e.g. Holm, 1995; Hargrave & Van de Ven, 2006), there still seems to be room for more empirically driven theorizing focusing on collective action between organizations, a context which might provide completely different dynamics compared to more typical contexts of collective action (e.g. a single organization or a community) due to the multi-faceted interests as well as high levels of physical distance (i.e. actors operating in different geographic locations) and social distance (i.e. different identities of organizations) between the actors. Therefore, providing conceptualizations about empirical solutions to the second-order collective action problem in an inter-organizational setting would not just provide new understanding about constructing inter-organizational systems aligned towards joint value creation but potentially allows contributing to theories of collective action and organizational institutionalism. Indeed, solving the such special case of paradox of embedded agency is still an open case not just in organizational institutionalism and theory of collective action but also untouched topic in streams discussing inter-organizational value creation. Despite some initial efforts (see e.g. Möller, 2010; Ritvala & Salmi, 2010), we are still missing theoretical understanding how actors can overcome the constraints of social structure when aiming to set up systems for inter-organizational value creation.

Thus, the synthesis provided in this compiling part aims to look at inter-organizational value creation from a collective action perspective and is guided by a research question:

How can actors solve the second-order collective action problem in order to enter joint value creation?

This question can be divided into more precise questions:

How do actors mobilize other actors into collective action to reshape the existing social structure (i.e. solve the second order collective action problem)?

How can the shaped structure then spur collective action (i.e. solve the first-order collective action problem)?

I see that these questions are pivotal in advancing our understanding of the overarching question of this dissertation how multiple organizations can create value jointly.

In the following sub-sections, I will explain the iterative research process, which has led to the publication of the four individual articles and motivated me to choose the collective action perspective as a theoretical lens for the synthesis these articles. After this, I will explain how this compiling part is structured.

1.4 Research process

The research process of this doctoral dissertation is far from linear, and the final theoretical framing and contributions presented in this compiling part were the results of a long iterative research process through which I aimed to understand what really drives inter-organizational collaboration and value creation. This dissertation is based on the four published journal articles, crafted, submitted, revised and published between years 2015 and 2018. Each article is published as its own entity and addresses its own research question by using a specific theoretical lens. The overarching empirical problem I started with at the beginning of my dissertation project and which I address in each article as well as in this compiling part, in the way or another, is how multiple organizations can jointly create value. In other words, each paper, utilizing a varying theoretical lens, ultimately discusses an empirical problem how to get set of diverse actors to sacrifice their self-interest gains and work towards a common goal.

The collective action perspective, discussed in this compiling part, became to shape while writing and revising Article 3. Thanks to our highly experienced editors and reviewers, we started to see linkages between our empirical data and theory of collective action. Prior to this, while writing Article 2, we had started to understand that setting up an inter-organizational system for working towards a common goal required not just managerial action to define formal rules but also social (or institutional) change to overcome, for example, existing beliefs hindering inter-organizational value creation. In other words, we observed that such institutional change actually required collective action (i.e. overcoming the second-order collective action problem).

Hence, these insights became to motivate me to frame the major part of this compiling part to address the second-order collective action problem. More particularly, I further reviewed existing literature on collective action and aimed to combine it with the insights of neo-institutional theory, which we started to apply in Article 2 and continued in Article 4. Thus, in this compiling part I aim to not just summarize but also synthesize the findings of the individual articles from the collective action perspective to provide a comprehensive framework to understand how actors can engage into joint value creation by forming a collective action system (i.e. overcoming the second-order collective action problem). To that end, I have synthesized the article findings by forming a conceptual model delineating the developmental process of collective action systems, which I further refined by revisiting the three empirical cases for improved empirical grounding of the model. I will explain the used methodology based on abductive reasoning (Mantere & Ketokivi, 2013) in more detail in Section 3.

Table 1 summarizes the chronological research process of the whole dissertation project initiated in January 2015. The table highlights the timeline of the data collection and analysis as well as the writing of the individual articles and connects them to the overall theme of this dissertation. Thus, overall, the

articles can be seen as important contributions on their own right as well as milestones on this iterative path.

Table 1. Chronological description of the research process

	Focus	Empirical work	Outcomes
2015	<ul style="list-style-type: none"> Mapping the research problem and formulation of an initial RQ: How can multiple actors create value in inter-organizational systems? Understanding the initial formation of inter-organizational systems (Article 1) Understanding the role of social institutions in evolution of inter-organizational systems (Article 2) 	Data collection on two sites: Rehapolis (23 interviews) HealthPark (11 interviews) Data analysis of Rehapolis case	<p>Crafting, submission, and revisions of Article 1 (accepted 6/2016)</p> <p>Crafting, submission, and revision of Article 2 (accepted 9/2016)</p>
2016	<ul style="list-style-type: none"> Further understanding formation process of the system-level goal and its role in governing inter-organizational systems Inception of the idea to utilize collective action perspective to further understand inter-organizational value creation 	Data analysis of HealthPark case	Crafting, submission, and revisions of Article 3 (accepted 10/2017)
2017	<ul style="list-style-type: none"> Expansion of research to another empirical context Further probing into institutional explanations (e.g., institutional complexity) to understand the barriers to inter-organizational collaboration Further development of collective action perspective 	Data analysis of third case (18 interviews done by a co-author) Conducting 2 additional interviews	Crafting, submission, and revisions of Article 4 (accepted 7/2018)
2018	<ul style="list-style-type: none"> Writing this compiling part of the dissertation Literature review to develop collective action perspective on inter-organizational value creation Synthesizing the findings of the articles from the collective action perspective to draft a conceptual model 	Revisiting the empirical cases for comparative cross analysis and validation of the conceptual model	<p>Crafting and submission of the dissertation (10/2018)</p> <p>Final revision based on pre-examiners comments (3/2019)</p>

1.5 Structure of the compiling part

To meet its two-fold purpose, this compiling part follows a rather non-conventional structure. First, I will summarize the contribution of the individual articles, which form the foundation of the whole dissertation. Second, I will go beyond these individual articles and approach the identified empirical phenomenon of inter-organizational value creation from the collective action perspective, which is discussed in-depth from Section 3 to Section 7 of this compilation. Therefore, as mentioned earlier this compiling part could be seen also as the fifth article of its own right providing a novel lens to the empirical problem at hand.

More specifically, Section 2 summarizes the findings and key contributions of the four original appended articles. After this, I will enter a more developmental mode, through which I aim to decode and synthesize the insights of these articles from the collective action perspective. Section 3 begins this process by providing a theoretical background on different streams of literature about collective action, which I used to formulate the collective action perspective. The aim of this literature review is to explain the basic role of institutions as governance mechanisms for collective action and then explore, in terms of

overcoming the second-order collective action problem, how these very institutions are subject to change.

Multiple pages in Section 4 are used to explain my philosophical underlining, critical realism, and how it can help combine the two above-mentioned theoretical discourses and theoretically solve the second-order collective action problem. I will also explain why the three cases examined in the four articles resemble a common-pool resource scenario and why inter-organizational value creation in these cases required setting up a collective action system. Then, I will explain the method used for the synthesis of the original articles. In Section 5, I will synthesize the findings of the articles from the collective action perspective to form conceptual building blocks for the model depicting the developmental process of a collective action system introduced and discussed in-depth in Section 6. Finally, Section 7 outlines my conclusions and presents theoretical contribution of the dissertation as a whole, which include both the overall theoretical contribution of the four individual articles, which paves way to the contribution achieved in this compiling part. Furthermore, I will explain the practical or managerial relevance of my study as well as discuss limitations and avenues for future research.

2. Summary of Original Articles

In this section, I will introduce the four original publications on which my doctoral dissertation is based. As explained, each article examines the empirical problem of inter-organizational value creation from different theoretical perspectives and thus forms an entity on its own right. As one can see already from the titles of the first three papers, my thoughts revolved strongly around the concept of value creation, which can be seen as an overarching concept throughout this dissertation journey. Therefore, before diving deeply into the collective action perspective, I want to provide the reader with a summary of the key findings and contributions of each individual article to better illustrate the iterative thought process of my research journey and the value of these articles as the foundation of the overall doctoral dissertation.

Table 2 summarizes the research question and used literature, method and data as well as the key findings and contributions of each individual article. Because of the “how” type of research questions (Yin, 1994), each of the articles utilized qualitative research approach through either a single- or multiple-case study. To collect qualitative data, we used semi-structured interviews as our primary method combined with non-participant observation. All of the cases involved multiple organizations, and therefore we aimed to interview representatives from all of the organizations participating in the respective inter-organizational system. For triangulation purposes (Jick, 1979), we complemented our primary data with different forms of secondary data. Our data gathering efforts took place in multiple phases between 2015 and 2017.

The two first articles focused on analyzing the Rehapolis case, which is a co-located inter-organizational network of multiple disability health care organizations located in Oulu, Northern Finland. The third article compared the Rehapolis case to the HealthPark case, which was an inter-organizational network of private health care service providers located in Helsinki, Finland. Finally, the fourth article examined the Lakeside Tunnel Alliance, which was a joint project alliance of two public and three private organizations, which aimed to build a complex highway tunnel. All of the papers adopted the so-called theory elaboration approach based on abductive reasoning (Ketokivi & Choi, 2014), through which the existing literature and theories were elaborated in the light of empirical findings. For a detailed description of the used analysis methods, the reader should refer to the original publications.

Table 2. Summary of the original articles and their contributions

	Research question and used literature	Method and material	Key findings and contributions
Article 1	<p>How can project management facilitate value creation through emergent inter-organizational networks in the front-end stage of projects?</p> <ul style="list-style-type: none"> • Network management • Social capital • The front-end of a project 	<p>Retrospective single case study of the Rehapolis health care network.</p> <p>Focus on the early phases of the development project, which aimed to form and expand Rehapolis network and build a joint health care campus</p> <p>Primary data</p> <ul style="list-style-type: none"> • 23 interviews, in total 1932 min • Site visits <p>Secondary data</p> <ul style="list-style-type: none"> • Reports of joint projects undertaken in Rehapolis • Original PowerPoint slides explaining Rehapolis idea • Correspondence from the development stage • Autobiography of one of the key actors 	<p>Inter-organizational systems (e.g. networks) are formed by managing its structural, relational, and cognitive dimensions</p> <p>Management activities include:</p> <ul style="list-style-type: none"> • Formation of joint-governance bodies • Granting leader role to few local organizations • Facilitating formal and informal interaction • Engaging actors into decision-making
Article 2	<p>How can a vision of shared value creation be created and implemented in an inter-organizational setting?</p> <ul style="list-style-type: none"> • Corporate social responsibility • Neo-institutional theory 	<p>Retrospective single case study of the Rehapolis case</p> <p>Focus on the whole lifecycle of the Rehapolis development project</p>	<p>Importance of socially constructed vision and goals as means to guide organizational behavior towards increased collaboration</p> <p>Creation of shared vision among the set of diverse actors requires actions on multiple levels:</p> <ul style="list-style-type: none"> • Institutional realm (e.g., field) • Organizational realm (e.g., dyadic relationships) • Socio-material realm (e.g., mundane practices)
Article 3	<p>How can multiple organizations collectively form a system-level goal and how does this affect new value creation at the level of the whole network?</p> <ul style="list-style-type: none"> • Meta-organizations • Inter-organizational network governance 	<p>Comparative multiple case study of the Rehapolis and HealthPark case. Same data on Rehapolis as listed above</p> <p>HealthPark primary data</p> <ul style="list-style-type: none"> • 11 interviews, in total 850 min • Non-participant observation of two board meetings (à 90 min) • Facilitation of a vision development workshop (180 min) <p>HealthPark secondary data</p> <ul style="list-style-type: none"> • Historic of the campus • Meeting material • Web-pages, press releases, development documents 	<ul style="list-style-type: none"> • Pivotal role of system-level goal as a governance mechanism for network level value creation (collective benefits) • Collective framing as goal formation • Network architect's mobilization of goal formation process • Domain similarity as moderating factor
Article 4	<p>How does organizational hybridization occur in a public infrastructure alliance project?</p> <ul style="list-style-type: none"> • Institutional complexity • Hybrid organization • Project alliancing 	<p>In-depth longitudinal single case study of the Lakeside Tunnel Alliance</p> <p>Primary data</p> <ul style="list-style-type: none"> • 19 interviews, in total 1730 min • Non-participant observation of industry-level development board meetings <p>Secondary data</p> <ul style="list-style-type: none"> • Project plan and documentation • Archive of 123 newspaper articles • City council meeting minutes 	<ul style="list-style-type: none"> • Inter-organizational systems bring together institutionally diverse organizations • Varying institutional demands create institutional complexity perplexing inter-organizational collaboration • Institutional complexity can be mitigated by forming hybrid organizations (e.g., a project alliance) • Hybrid organizations are governed through informal and formal governance mechanisms mitigating institutional tensions

2.1 A1: Managing inter-organizational networks for value creation

The first article is meant for a project management audience and the idea behind it derives from my personal thoughts during the time of collection and analysis of empirical data on the Rehapolis case. Rehapolis is a multi-organizational health care campus, on which we started to collect empirical data to understand how multiple organizations could jointly create value through increased collaboration. When we mapped the Rehapolis case narrative through interviewing the key actors, it became obvious to us that the Rehapolis campus and health care network were built through a joint project between a key group of organizations operating in the disability health care field. The project itself could be described as a traditional construction project in which implementation *per se* was not very complex. However, the more interesting question was: how did this project come into being? This question gave me an initial idea to focus our analysis efforts on a so-called front-end of a project, which is the strategic pre-project stage where the initial project idea is developed, the necessary parties are summoned and the project's goals are formed (Morris, 2013). Thus, decisions and actions taken in the front-end will affect the value creation during and after the project (Artto et al., 2016). Despite the rising interest towards the front-end phase, it was not clear in project management literature through what kind of actions and by whom such phase is actually managed.

Especially large and complex projects require the input of multiple diverse organizations (Scott, 2011). This gave us the basic assumption that such projects can be described as inter-organizational networks (Hellgren & Stjernberg, 1995; Ruuska et al., 2011). Thus, it could be further assumed that such an inter-organizational network starts to shape up already during the front-end phase of the project and the network then carries out the project. Therefore, the underlining research question in our paper was: how can project management facilitate value creation through emergent inter-organizational networks in the front-end stage of projects?

Our basic assumption was that such a network can be managed, although potentially not through traditional hierarchical and control-based management actions. Instead, we adopted a networked value creation view developed by Tsai & Ghoshal (1998), which is based on the idea that social capital can increase the value creation potential of the network (e.g., by facilitating innovation). More precisely, three different network dimensions — structural, relational, and cognitive — are key parameters to manage to create value in multi-actor networks. Structural dimension describes the network patterns such as centrality and density. Relational dimension covers issues affecting the strength of relationships between the actors. Cognitive dimension then describes the similarity of cognitive patterns and shared understanding (e.g. about goals) among the network members. By using the network dimension model as our analytical lens, we were able to examine the Rehapolis case to better understand how managers can facilitate these factors towards value creation by pushing a vague idea into project implementation. In the following sub-section, I will

provide a brief version of the narrative of the Rehapolis' front end after which I will delineate the key findings and contributions of the article.

2.1.1 The narrative of the early phases of the Rehapolis case

The development of the Rehapolis health care campus took place in the shift of the 21st century. The key idea was to co-locate the geographically, as well as ideologically, dispersed public, private and non-governmental disability health care organizations into a single campus and to improve the integration of health care services offered for people with disabilities, such as post-amputation treatment, from prosthesis fitting to rehabilitation. During that time in the Finnish health care sector, such co-location of private and public health care organizations was seen as revolutionary and potentially inappropriate because of fears of compromising the Public Procurement Act (even today it would probably still raise some eyebrows). Hence it was surprising that the chief executive officer (CEO) of Prosthesis Foundation (PF)¹, a major private company providing prostheses and other disability aid services, initially championed the idea. The Prosthesis Foundation's CEO gained strong support from the chief operating officer (COO) of the local the Disabled Association (DA), a non-governmental organization (NGO) representing people with disabilities.

The idea for the co-located facility was actually the result of a years-long inter-organizational dialogue within an advisory board of the Prosthesis Foundation involving participants from multiple organizations, such as the two aforementioned gentlemen, who were accompanied by high-level city officials and representatives of the local hospital district. Thus, the idea resulted from active inter-organizational interaction, which was facilitated by two central figures, the Prosthesis Foundation's CEO and the Disabled Association's COO, who had strong and trusty relationships to key organizations in the local field of disability health care. The advisory board meetings caused the actors to really think about the problems that the disability health care field of the Northern Ostrobothnia² was facing. Our informants asserted that the idea for Rehapolis was sparked on a train to Helsinki, the nation's capital, when the advisory board members jointly visited a national health care fair in 1998. It was then the job of the Prosthesis Foundation's CEO and the Disabled Association's COO to push the idea forward.

What was so revolutionary in the idea to build a joint campus and co-locate the organizations of the disability health care field? To fully understand the issue, one needs to understand the context of the Finnish publicly funded health

¹ The Prosthesis Foundation was formed by National Disabled Foundation (later Orton Foundation) during World War II to support the rehabilitation of war veterans. In 2000 it merged with the Finnish Red Cross's prosthesis service and changed its name to Respecta Inc., which was later sold to a multinational company Ottobock. For clarity and consistency, I will use the historical name the Prosthesis Foundation and abbreviation PF throughout this study.

² Finland is divided into 20 hospital districts which are responsible for organizing special health care services and governed by federation of municipalities. Northern Ostrobothnia hospital district serves roughly 400 000 patients and involves 29 member municipalities.

care system, which was set up after the Second World War following the social democratic welfare-state ideology (see e.g. Esping-Andersen, 1990) prevalent in Nordic countries consisting of Denmark, Finland, Iceland, Norway and Sweden. Because of progressive tax collection efforts and income transfer schemes, the government, operating often under social democratic ideology³, is capable of providing world-class public health care services, which are basically free for all Finnish citizens and residents. Profit-making and shareholder value, typically associated with private companies, fit very poorly into this picture; however, even the strong public health care organizations are not immune to the dynamics of the open market economy and are increasingly outsourcing their services to private operators.

One practical reason for the change towards collaboration and co-location was the poor condition of current spaces in which some of the organizations operated. For example, a municipal assistive device unit, responsible for prostheses and other disability aids, operated in the basement of the university hospital, while the Prosthesis Foundation was located in a temporary barracks outside the same hospital. Another problem was the low overall legitimacy of disability health care and people with disabilities who were feeling that their voice was not heard (e.g. the services were organized badly as the location in temporary facilities show). Such problems enhanced motivation for radical change.

The Prosthesis Foundation's CEO and the Disabled Association's COO engaged in serious groundwork to promote the idea of Rehapolis within the public decision-making bodies such as the city council and got the council's approval to form an a taskforce to provide a report explaining rationale behind the campus and how it would be funded and operated. The COO of the Disabled Association happened also to be a local municipal politician as well as an amputee himself, which opened access not just to political decision-makers but also disabled people.

After such active lobbying and networking, the project to build the Rehapolis campus got publicly accepted and the City of Oulu participated in funding the first campus building together with the Orton Foundation. Until today, they still share the ownership of the first building. At this stage, the hospital district's managers were still against the whole project and decided not to participate although the City of Oulu's assistive device unit decided to move to the first campus building. Changes in the board of the hospital district as well as a couple of years of operation of the first campus convinced the new board that the co-location of public and private organizations would not violate the Public Procurement Act. Finally, the hospital district's board of directors saw the

³ Finland has a multi-party political system, which means that it is practically impossible for one party to receive majority in the parliament. Hence, government is nearly always formed through political coalitions. Of course, the composition of the government varies from electoral cycle to another and not all governments by any means represent the pure social democrat ideology. However, the long welfare-state tradition was cemented during the decades long rule of social democrats after World War II and has resulted in a strong institution crossing political fronts from left to right.

benefits of Rehapolis and centralizing disability health care services into the modern and highly accessible premises. This led to constructing the second campus building, opened in 2006.

2.1.2 Key findings and contributions

Through the in-depth analysis of the early stages of the Rehapolis case, we identified four important management activities, through which the dimensions of the Rehapolis network were shaped towards increased value creation (i.e. to push the project into implementation). These were: 1) Assigning a network leader role to a central organization (affecting structural dimension by increasing centralization of the network around the key actors). 2) Forming a joint inter-organizational coordination of bodies, increasing trust and relationship strength (relational dimension) as well as network's density (structural dimension). 3) Organizing frequent meetings and social interaction, also affecting trust, relationship strength and network density. 4) Engagement of new actors in decision-making about the project goals, increasing trust but also facilitating the joint meaning of the project (cognitive dimension).

These management activities thus affected the network attributes under the three dimensions. We argue that five distinct attributes especially play pivotal role in networks' capability to push the idea into a viable project. These were: (1) centralization around few actors, (2) network density, (3) strength of ties, (4) high level of trust, and (5) shared vision among actors.

The key contribution of the study, especially to the project management literature, is to show that projects do not develop in a vacuum but are deliberately build through interactive social processes among multiple organizations. Through this facilitated interaction, the organizations constantly develop and discard new ideas. Some of these ideas may become more relevant and start act as frames for new projects, especially when certain central actors start to push them forward and mobilize and engage more organizations into the emerging network. Despite being a rather fuzzy phase, the front-end still relies on managerial actions such as those listed above, which aim to build a consensus and form a common rhetoric and frame among the participating actors.

2.2 A2: Crafting a vision of shared value creation

In the second article, we continued analyzing the Rehapolis case and the local field of disability health care. However, this time we spanned our analysis to include not just the very early stages, as in the first article, but to take a more holistic view on why and how the local disability health care field began to change through the Rehapolis project. The aim of the Rehapolis project was to re-define the disability health care services by building and co-locating the diverse actors into a new health care campus. Because of restraints set by the stagnant beliefs, norms and legal framework, the co-location of public and private organizations was seen as especially problematic. In this paper, we

aimed to map how the initial vision of better integrated disability health care system was shaped, shared and anchored, leading to changes in the local field of disability health care. In the outset of the paper, we frame the case to relate to the problem of creating shared value among multiple participants.

In general, creating shared value (CSV) is a concept coined by Porter and Kramer (2011) and used more widely in management consulting⁴ (for a healthy critique of the CSV concept see e.g. Crane et al., 2014). Ultimately, it aims to address the dilemma of corporate social responsibility, which modern companies face: namely, why firms that predominantly seek profits should engage in social developments such as philanthropy. Porter and Kramer (2011) argue that a solution would be to transfer social problems to business opportunities, such as to conduct philanthropic acts (e.g., supporting education) to improve the business environment of companies and thus create business value in the long term (e.g., to ensure the supply of well-educated employees in the future) and simultaneously provide societal good. Overall, we interpreted this as a vision creation issue, which means that achieving such altered modus operandi requires crafting a shared vision and putting it into practice. However, to change the existing practices towards sustainability requires institutional change (Thompson et al., 2014). Thus, we used neo-institutional theory of organization as our theoretical lens to shared value creation.

We saw that the Rehapolis case represented an empirical example of shared value creation since it was formed to improve the public health care services of the disabled people but simultaneously offered new business opportunities to private companies. Thus, the focus and contribution of Article 2 lies on investigating how a joint vision of Rehapolis was initially formed and put into practice to deliver institutional change in the local field of disability health care. To understand this process, we adopted the lens of actor-led or agentic institutional change (Battilana et al., 2009), which later came to be a central theme in my overall dissertation. Based on our empirical findings, we delineated a three-stage process model of the creation and implementation of the vision of shared value creation. Before explaining the model and its contributions, I will provide a brief narrative of stages of the Rehapolis case after the development project.

2.2.1 The narrative of the later phases of the Rehapolis case

I described the idea creation and development of the Rehapolis case in the previous sub-section. The important add-on of Article 2 is that it also considered the later stages and actual operation of the campus buildings. More particularly, our analysis revealed that despite the success of mobilizing many actors behind the project, certain important organizations, such as the Hospital District, decided initially to stay out of Rehapolis. The major opposition came from the top management of the Hospital District, which is the publicly funded

⁴ Porter's and Kramer's idea has led to the formation of Shared Value Initiative (SVI), bringing together companies and consulting firms.

organization providing regional special health care service. The hospital district of Northern Ostrobothnia was responsible for special health care services for the people with disabilities, such as amputations and other special surgeries. In similar vein, the City of Oulu's municipal health care centers and hospitals provided the basic health care services such as prostheses and less technical disability aids. Interestingly, the representatives of the City of Oulu were supporting the Rehapolis project.

Thus, the first campus building was constructed and became operational without the hospital district. When the key organizations (e.g., the Prosthesis Foundation, the Disabled Association, the municipal assistive device unit) moved into the first campus building and started their daily operations, it soon became evident that the new shared environment seemed to increase the ad hoc encounters between the representatives of different organizations, leading to increased trust and community feeling inside Rehapolis. The revised socio-material environment thus started to re-define actors' behavior. However, no signs of violation of procurement laws existed, as the hospital district's managers initially feared. Pretty soon, Prosthesis Foundation's CEO started to plan construction of the second building. This time the hospital district's managers were more interested to join since the operation of the first campus building showed that an increased level of collaboration would not result any legal violations. In fact, the hospital district decided to partly fund the second campus building and move its assistive device services there. The second campus building became operational in 2006.

2.2.2 Key findings and contributions

Based on the thick description of the series of events leading to construction and operation of two Rehapolis campuses, we delineated a conceptual model of creating and implementing a vision of shared value creation. We saw that reaching such underlining change in the whole local field of disability health care required change in the prevailing social structures and mundane practices. Thus, we borrowed insights from Balogun et al. (2014) and mapped the change process to occur on three different levels or realms of institutional (the field), organizational (within and between organizations), and socio-material (in the physical environment and daily practices).

More particularly, we saw that the vision (of the shared value creation) is first shaped among multiple participants on the field level and starts when actors come together and make sense of problems and frame potential solutions. In the Rehapolis case, this occurred in the Prosthesis Foundation's advisory board. When an initial frame is created it has to be shared and pushed further by mobilizing more resources and actors behind it as happened in the Rehapolis case when the first campus project was initiated. Finally, the vision needs to be anchored into a socio-material realm by developing an artefact that can act as an epitome of the vision, changing the material practices and further legitimizing the change. In Rehapolis, the actual campus building(s) acted as a

socio-material artefact, changing the mundane patterns of organizing and acting thus as a realization of the change.

Overall, the paper highlights the importance of shared vision, collective action and actor-initiated institutional change as prerequisites for shared value creation. Therefore, the paper contributes to growing discussion on shared value initiated by Porter and Kramer (2011) as well as the stream of corporate sustainability literature emphasizing the importance of institutional change in reaching sustainability goals (see e.g. Thompson et al., 2011).

2.3 A3: Collective action in constructing system-level goals

In the third article, we were interested in understanding how inter-organizational networks (or strategic nets as described by Möller and Rajala, 2007), such as Rehapolis, are not just formed but also governed towards network level outcomes (Provan & Kenis, 2008), especially in situations in which there are no transactional relationships among the participating actors. Such independent nature of organizations as well as lack of business relationships pointed us towards so-called meta-organization literature (see, e.g., Gulati et al., 2012; Ahrne & Brunsson, 2005). A meta-organization is an organization of organizations consisting of multiple legally autonomous entities working towards a system-level goal (Gulati et al., 2012). The key feature of such structures is that much like normal bureaucratic organizations, meta-organizations can be also seen as designable entities that follow certain structural order and formal and informal governance mechanisms guiding the actions within its boundaries as well as the control over those boundaries, such as to whom to grant the membership.

The key motivation of using meta-organization literature was to borrow its key concept of system-level goal, which can be seen as the collectively accepted purpose of the whole system (i.e., a network of actors defines the network-level outcomes as well as activities to reach such outcomes). A system-level goal is an important concept in understanding how multiple organizations can work together and create system-level value. Therefore, we addressed a following research question: How can multiple organizations collectively form a system-level goal and how does this affect new value creation at the level of the whole network?

To address the research question, we continued our empirical investigation of the Finnish health care context and complemented our inquiry with an additional and more longitudinal case study of the HealthPark initiative, which aimed to form a collective of private health care operators offering a comprehensive health care service to elderly people. Furthermore, we spanned our analysis of the Rehapolis case to also include the past 10 years from the finalization of the second campus building up today. Interestingly, we found rather dramatic changes in its operations. By utilizing this comparative multi-case study design (Eisenhardt, 1989), we sought to gain more generalizable findings about mechanisms behind collective goal formation and action to reach

network-level value creation, but also wanted to control for variability by choosing rather similar cases from the similar context.

2.3.1 The narrative of the HealthPark case

As the two previous articles showed, the jointly crafted idea, further framed into a strong vision by the socially skilled actors was in the core of Rehapolis' success. In a similar vein, we witnessed such agenda setting and framing actions to take place while we participated into the early development meetings of HealthPark. HealthPark aimed to form a strong collaborative network of private health care operators to utilize their special skills and resources for the good of (private) patients and to reach increased customer flows to the network as a whole. This deviated strongly from the past *modus operandi* within the HealthPark campus, which is owned by Orton Foundation, a well-appreciated health care provider, rehabilitator and re-educator having roots in the post Second World War era. Originally, Orton Foundation was founded to improve the quality of life of war veterans by not just treating their medical condition (e.g., amputation) but also rehabilitating and re-educating them accordingly. This harsh working environment had led the Orton Foundation to become one of the leading experts in Finland in terms of orthopedy, treating musculoskeletal disabilities as well as rehabilitation and re-education.

The Finnish health care reform in the 1990s stripped the Orton Foundation from its special privilege to provide publicly funded health care services (to war veterans and other disabled patients), and legally it was seen as a private hospital despite its foundation-based structure. In other words, before the reform, Orton Foundation could directly offer public health care services but after the change it needed to participate in a competitive bidding in order to become a service provider for the public sector, which comprises around three quarters of all health care spending in Finland. After the legislative change, Orton Foundation had found itself in an ever-toughening competition against major private hospitals, leading to drastic decline in its revenues and profitability.

In 2012, Orton's newly appointed CEO started to ponder alternative ways to increase Orton's service offering and thus competitiveness in the private health care market. The CEO gained the idea about a more networked form of organizing and HealthPark was founded in 2014. The CEO hired an external management consultant to help set up the localized network. First, the organizations already existent in the Orton campus were invited to development meetings and this core group then crafted a list of potential organizations who could be invited to join the initiative. In HealthPark, the complementing skill set of participating organizations was a crucial membership criterion in order to form a comprehensive health care service offering to be marketed to wealthy elderly people. The development board identified wealthy elderly people to be the major users of out-of-the-pocket health care services. This led to mapping and piloting a comprehensive Stay Healthy service that combined the expertise

of different HealthPark organizations (e.g., dentistry, orthopedics, rehabilitation, and mental counseling).

2.3.2 Key findings and contributions

Based on the cross-case analysis of the two cases, we developed a conceptual model of the collective formation of a system-level goal. The key similarity between the cases was the engagement of various actors into shaping the system-level goal. In Rehapolis, the Prosthesis Foundation's advisory board brought together a wide variety of organizations operating in the disability health care field. In HealthPark, a focal organization, the Orton Foundation, started running a development board into which it summoned other organizations currently operating or interested moving into the Orton campus. It can be argued that solving the problem at hand could not have been possible without inclusion of these multiple actors whose inputs were required. It is noteworthy that in both cases, despite so-called collective framing of the system-level goal, the process was highly facilitated by the focal elite actors: in Rehapolis the CEO of the Prosthesis Foundation and the COO of the Disabled Association, and in HealthPark the CEO of Orton and the external management consultant.

In the article, we labeled such a facilitator as a *network architect*, which is an individual who represents a focal organization and has strong social position, power and social skills to mobilize others. All of these individuals had hierarchical power in their own organizations because of their top management positions (management consultant's power was more or less granted by Orton's CEO), but it is noteworthy that they did not possess hierarchical or transactional power over the other organizations. Thus, neither one of the architects was capable of managing by fiat and forcing others to join and act accordingly. This is where the social skills and collective framing of the system-level goal jumps in as an informal governance mechanism.

The importance of both system-level goals was that they were rather cleverly framed to provide both collective benefits and also self-interest benefits to potential participants. For example, the development board of HealthPark focused on pondering both, how single organizations could be motivated to join HealthPark (e.g., by offering a great location and premises as well as a clear position in the mutual service portfolio), but also how the HealthPark as a collective would bring added value to the patients and the participating actors (e.g., integrated and comprehensive health care offering increasing customer flows to the campus). In the paper, we argue that this two-dimensional nature of the system-level goal, promising both collective and self-interest gains, is necessary in order to motivate individual actors to invest their time and resources in collective actions. Collective actions then enable receiving collective benefits (i.e., network-level value creation) such as increased visibility and improved services in the disability health care field (Rehapolis) and innovative comprehensive health care services (HealthPark), which a single organization could not have achieved alone.

The key difference between the cases was the decision of whom to include into the collective entity (i.e., membership criteria). In Rehapolis, a wide variety of organizations were granted a permission to join the campus as long as their operations were loosely related to health care and medicine and preferably to disability health care. The architects of the Rehapolis network saw that diversity would create benefits, and they invited public, private and non-governmental organizations to join. The Prosthesis Foundation's CEO welcomed even his direct competitors. HealthPark architects took a slightly different approach and suggested in the development meetings that the campus would welcome mainly private health care organizations, whose services would complement, not compete, with one another. The goal of HealthPark was to provide comprehensive health care service to promote the overall well-being and health of elderly people, consisting of complementing service components such as dentistry, physiotherapy, psychiatric and general physician services. Thus, by mapping criteria for the membership and governing them, the network architects were able to define the permeability of the borders of the collective action system and therefore affect domain similarity within it. By domain similarity we mean the degree to which the participants have similar, operations, customers, organizational goals, knowledge and cognitive structures (Van de Ven, 1976).

We identified domain similarity as a key moderating factor behind the effectiveness of the system-level goal as an informal governance mechanism for collective action. However, the relationship here is not linear. Instead, we argue that domain similarity has a curvilinear relationship with the goal formation, meaning that the actors should neither be completely different nor perfectly similar.

Overall, our paper provides a new understanding of the recent theorizing on goal and agenda construction in strategic or deliberately constructed inter-organizational networks (see e.g. Möller, 2010). Our findings emphasize the role of system-level goals and the joint framing process as important antecedents of network-level value creation such as collective benefits among network participants. However, such collective process is initiated by the strategic actions of few core and elite actors who then become the network architects. Furthermore, we provide further empirical evidence on so-called collective action approach in network management (Provan & Kenis, 2008; Ritvala & Salmi, 2010) and meta-organization literature (Gulati et al., 2012) which relies on construction of joint goals, routines, and social governance rather than management through hierarchical control.

2.4 A4: Institutional complexity and temporary hybridization

The fourth and final article steps away from the health care field and investigates inter-organizational collaboration in the construction industry of one North-European country, another mature field with highly institutionalized structures. We argue that the institutional structure became to hinder collaboration among multiple diverse organizations participating in public

infrastructure projects and that such hindrance at least partially derives from the divergent and even conflicting institutional demands set to the actors. This can be conceptually labelled as institutional complexity (Greenwood et al., 2011). However, these institutional tensions and conflicts can be mitigated through different mechanisms such as by forming a hybrid organization in order to implement multiple societal rational (i.e., institutional logics) into their values and practices (Battilana et al., 2017). This can be achieved through re-configuring organizational structures, practices, and cognitive elements (Schildt & Perkmann, 2016).

We investigated how a major public organization, the National Transport Agency (NTA), adopted a new collaborative organizational form, project alliancing, in order to respond to problems at least partially caused by institutional complexity experienced in the past projects. More specifically, our analysis reveals a strong tension between corporate market logic, emphasizing profit-making and competition prescribing the legitimate behavior of private companies, and bureaucratic state logic, which focuses on the provision of public good and transparent decision-making. In addition, divergent professional backgrounds, role-specific norms, and practices enacted in public infrastructure projects created conflicts such as differences in timing norms and project goals.

We argue that project alliancing represents a hybrid form of organizing public infrastructure projects, since the fundamental principle in project alliancing is to form a joint organization consisting of representatives of multiple participating organizations to work for the best of the project (Walker & Lloyd-Walker, 2015). However, a public infrastructure project as a temporary and inter-organizational entity has more limited time and autonomy to undergo the change process of organizational hybridization. Therefore, by investigating the empirical case of the Lakeside Tunnel project, we delineate a process of temporary hybridization, which allowed multiple parties to become socialized to the more collaborative working approach and overcome institutional barriers to collective action. In the following, I will explain briefly the key events and actions we identified in the case. Then, I will summarize the theoretical insights we gained through this in-depth case study.

2.4.1 The narrative of the Lakeside Tunnel case

The Lakeside Tunnel project aimed to build a 2.3 km long highway tunnel under a busy mid-sized city. The project officially began in 2012 and was completed in 2015. However, in order to understand why this project was undertaken as a project alliance, a previously unknown form of organizing in the analyzed context, we needed to span our analysis to events preceding the project. One of the key events was an international conference on public procurements in Karlsruhe, Germany in 2009. Three managers from the NTA participated in the conference with one consultant who later founded a company specializing in project alliancing consulting. They all heard an Australian project alliancing consultant's key-note speech about the success stories from Australian alliance

projects. At that stage, the NTA had already participated in different field level bodies and co-funded a few research projects, with the National Research Centre (NRC), aiming to explore new ways of organizing infrastructure projects, such as project alliancing, to overcome the perceived cost, budget, quality and productivity problems. However, the meeting of the NTA's managers, the local consultant, and the Australian consultant seemed to really give the final touch leading to decision to start pushing the project alliancing in Finland.

After the conference in Germany, the local consultant agreed with the NTA to invite the Australian consultant to further explain possible benefits and approaches to project alliancing. This led to a series of trips by the Australian consultant to the case country in 2010 to run seminars and educational workshops on alliancing. On the first trip project alliancing was introduced to the representatives of multiple private and governmental organizations operating in infrastructure and construction industry to set the scene. This led the NTA to decide to test project alliancing in a rail refurbishment project and to hire both the local and Australian consultants to support them in establishing and running the alliance.

Concurrently, the NTA and the NRC and a group of other elite organizations in the field of construction were engaged in a joint research project through which they aimed to develop a suitable alliance model for the case context. The initial problem was that the Australian model based the selection of alliance members purely on qualitative criteria such as past merits. Such an approach would not meet the Public Procurement Act enforced by the European Union which requires price-based competitive bidding as a selection mechanism. Through the research project, the NRC's researchers developed a supplier selection process that included qualitative criteria and a monetary component, such as a service provider's fee, which was then scrutinized by a group of legal experts to ensure compliance with the EU's procurement legislation. These efforts showed that the adoption of project alliancing was possible and there was a strong will to push things forward in the aim to implement the Lakeside Tunnel as a project alliance. However, this required wider acceptance from the field and the project stakeholders.

The first step was to gain acceptance from the major stakeholders: the city council and the City Planning Department. The former, an openly elected municipal decision-making body, was responsible for the funding decision of the project according to the principles of democratic decision-making. The latter was a public organization responsible for undertaking city development works and would act as another buyer organization in the Lakeside Tunnel project. The city council received this message sufficiently well and permitted the city planning department and the NTA to organize an open bidding to form an alliance.

As the result of the rigorous selection process, the NTA and the City Planning Department selected a private consortium consisting of two engineering offices and one main contractor to form the project alliance with them. The city council granted a permission to start the development phase of the project, which began

in July 2012. The aim of the development phase was to define the detailed technical solution for the tunnel and come up with a precise target outturn cost (TOC) satisfying all of the alliance participants and setting the basis for an incentive system. Project alliancing is based on the risk-sharing principle, which means that private service providers gained profits only if the TOC and jointly defined key results areas (KRAs) were met. If outstanding achievements occurred, there was a possibility to gain bonuses. If performance fell tremendously under the targets, only direct costs were covered. The KRAs of the Lakeside Tunnel project involved schedule, safety, usability of the tunnel and public image of the project, all measured in specific jointly defined key performance indicators (KPIs).

We argue that the incentive model and the alliance agreement, which were jointly negotiated between the diverse organizations, were crucial governance mechanisms through which the joint alliance organization could couple with the diverging demands of multiple institutional logics. More particularly, the open book cost management and risk-sharing complied with the demands of open and bureaucratic decision-making prescribed by the bureaucratic state logic. In similar vein, the possibility for (reasonable) profit-making satisfied the basic demand of the corporate market logic. When such conflicting demands causing juxtaposition between public buyer and private service providers were all met, collective action and collaboration occurred within the alliance organization.

However, this was not the case in the very first stages of the development phase despite the clear contract and governance structure, but our informants actually reported about a strong period of ambiguity during which it was not quite clear how one should behave within an alliance organization. We argue that this was partly because of co-location of individuals with different professional backgrounds, such as designers and contractors, who were not used to working intensively together. Even the myths and falsified beliefs about other professional groups seemed to persist within the alliance organization.

Overcoming the ambiguity required a clear sensegiving imperative and alliance training in which the basic idea of project alliancing was explained: for example, metaphorically describing everyone to be in the same boat. Furthermore, in order to ensure the adaptive and collaborative capacity of alliance members, the individuals were hand-picked by senior managers and requested to undergo psychological testing determining their collaborative profile. Despite these ensuring efforts, it was not before the start of the mundane task-specific activities to undertake the project work when the imaginary walls dividing different groups fell down and they started to interact with one another, simply, in order to get things done. Co-location and a blended organizational structure diluted the boundaries of permanent organizations, helping facilitate the cross-disciplinary interaction when all the tunnel alliance employees worked next to one another and problems were solved on an ad hoc basis. Through this interaction the trust started to accumulate and falsified myths and beliefs were overcome. In addition, the interaction shaped rules of mundane organizing such as the project schedule and specific deliverables of different

teams, which were defined and revised in joint workshops. When the alliance organization was able to define and affect these formal and informal rules autonomously, there seemed to be stronger loyalty to follow the rules and meet the given targets.

2.4.2 Key findings and contributions

The key finding of the fourth article was that organizational hybridization can occur even in temporary organizations such as public infrastructure projects. However, in order to be successful this requires significant groundwork already before the project, during the so-called front-end phase (analogously to Article 1), when the change agents need to create legitimacy to a new hybrid form of organizing. Thus, the actors need to not just initiate an organizational change process but potentially a much wider institutional change, especially in the context of public infrastructure projects, which can be seen as complex inter-organizational systems.

Thus, our findings contribute to neo-institutional theory and more particularly to writings about institutional complexity (see e.g. Raynard, 2016) by showing that project-based and task-oriented arrangements are effective means of responding to institutional complexity and facilitating institutional change. We provide a nascent theorizing of temporary hybridization, which we define as a process aiming to combine multiple institutional logics into the goals and structures, and practices of a temporary organization set to achieve a given task in a limited period of time. In addition, our findings contribute to project management literature by emphasizing institutional complexity as a potential reason for perceived problems in major projects. However, we argue that relational contracting such as project alliancing can provide potential means and mechanisms to mitigate such complexities.

2.5 Section summary

In this section, I have summarized the four original articles, their research questions, used methods and data and, more importantly, key findings and contributions. The overarching theme in every article has revolved around the question how multiple organizations can engage in joint value creation. As the findings indicate, crafting a joint vision and goals as well as setting supportive (especially informal) governance mechanisms are necessary antecedents to make inter-organizational collaboration a meaningful and *per se* valuable effort. Otherwise, organizations and people working in them might be too focused on meeting their self-interested gains and own goals and align their actions accordingly.

The clear emphasis on informal governance mechanisms seems to stem from the fact that none of the cases could be purely organized through transactional

or contractual relationships⁵. Arguably, this is due to the fact that problems, which the multiple actors aimed to solve in each case, required inputs from all actors and it became easier to engage in negotiations about a common solution than bargaining over and contracting out independent self-interested solutions (i.e. partial optimization) to the problem. Therefore, I interpret this as a rather classical collective action problem, in which actors need to formulate a common goal and suitable governance mechanisms that spur collective action instead of self-interested behavior. This created motivation to approach the whole theme from the new theoretical angle paving way to the efforts discussed in this compiling part.

Another motivation was created by the fact that despite their clear contribution in describing different developmental paths to inter-organizational value creation, these articles did not yet profoundly touch the fundamental theoretical puzzle how such actor-led change is actually possible. Or in the other words, how actors can overcome the barriers and constraints of existing social structures such as norms, practices, values and beliefs, prescribing uncooperative behavior. Indeed, as I argued in the introduction, to reach consensus on goals and actions to reach goals actors need to solve the second-order collective problem. This paved way for taking the findings and contributions of these individual articles one step further by developing the so-called collective action perspective on inter-organizational value creation.

Therefore, I argue that the combining neo-institutional theory focusing on institutional change with the theory of collective action would provide a fruitful lens to synthesize the findings of individual articles, resulting in new knowledge about inter-organizational value creation as well as forming a potential avenue for contribution to neo-institutional theory and theory of collective action. Hence from the next section onwards, I will enter a more developmental mode to synthesize the insights of these four articles from the collective action perspective. Prior to introducing the actual results of my synthesizing efforts, I will provide a necessary theoretical background for the collective action perspective as well as profoundly describe the methods used for such synthesis.

⁵ Lakeside Tunnel Alliance parties were bound together by a rather loose alliance agreement, which did not define roles and responsibilities of each contracting party but just emphasized the pain and gain sharing approach and closed out an opportunity for court settlement.

3. Theoretical Background of Collective Action Perspective

This section aims to introduce the necessary background on what I refer as a collective action perspective, through which I aim to explain potential barriers to and enablers of joint value creation among multiple organizations and how they can be overcome.

Collective action can be defined as joint actions taken by a group of social actors to pursue a goal of common interest (Olson, 1965). The first-generation collective action theory, rooted in political science and institutional economics, is associated with the so-called commons approach, investigating how public goods such as material public infrastructure assets or immaterial entities such as national defense, should be governed. The basic thesis is that functionality of a common or a public good requires investments of individuals' effort, such as paying taxes, and that the benefits are then unconditionally shared among the participants of the collective, such as among the citizens of a nation-state, leading to low excludability of the participants from receiving the benefits. Potential problems arise when it is possible for individuals to receive the collective benefits without contributing to the common good, leading to a phenomenon described as free-riding, collective inaction, a collective action problem (Olson, 1965), a tragedy of the commons (Hardin, 1968) or in more generic terms a social dilemma (Dawes, 1980). A simple example would be citizens enjoying the social benefits of the welfare state (e.g., education, health care, infrastructure) while refusing to pay taxes, or on a smaller scale, an individual enjoying the benefits of any social club (e.g., a yacht club) without participating in voluntary work required to maintain the club (e.g., a circulating watch of the shared harbor). Because of the ubiquitous nature of the phenomenon of collective action, it is not a surprise that it has become "the theory" in political science (Ostrom, 1998).

It is important to note that theory of collective action has predominantly focused on governance of situations in which multiple legally independent actors (individuals or organizations) with plural and even conflicting interests have to share ownership of a common-pool resource but without clear property rights over the resource which creates conditions for tragedy of commons (Hardin, 1968). A common-pool resource can be conceptualized in many ways. In more classical terms these were natural resources such as pastures, fishing waters and forests under common use (see e.g. Ostrom, 1990). However, a

common-pool resource scenario and thus theory of collective action has been used to understand also different arrangement aiming to organize production of (public) goods and services as well as solving political problems requiring input from multiple non-excludable actors such as constructing major infrastructure projects (Gil, 2017; Gil & Pinto, 2018), finding solutions environmental problems such as to climate change (Ansari et al., 2013), governing large voluntary electronic networks (Wasko et al., 2005) and organizing public services such as health care or police forces (Ostrom, 2008)

In the other words, the key boundary condition of the collective action theory is that the resource (or a problem requiring a solution) at hand is common and utilizable by set of heterogenous actors who cannot be fully excluded from using the resource and enjoying its benefits (in economics referred as a non-excludable good, see e.g. Brito & Oakland, 1980). Such inherent pluralism of actors and complexity of the problem at hand complicates monetizing the joint output (i.e. benefits) and sacrifices (i.e. individuals' inputs) resulting high bargaining costs making it difficult to formulate exact contract *ex ante* through which the property rights and thus rewards, responsibilities of, and therefore value for, each participant could be first defined and then allocated (Libecap & Wiggings, 1984). Therefore, to avoid free-riding problems in a pluralistic setting the actors need to find alternative ways to govern the resource production, usage, or in general problem-solving. This is where the various social (i.e. informal or non-contractual) institutions come into play as mechanisms to govern collective action and mitigate self-interested (free-riding) behavior.

In Section 3.1., I will summarize the most prolific streams of literature on collective action starting from the first-generation theory of collective action, relying more on rational egoist models, to the second-generation theory applying a behavioral approach. From there I will build a link to the theoretical discourse more relevant to (inter-)organizational studies, namely organizational institutionalism, which gives further understanding of how actors can overcome the second-order collective action problem through institutional change. Therefore, after introduction of the fundamental foundations of collective action theory, Section 3.2 will adopt more insights from neo-institutional theory describe the collective action as an “end” or explain how it can be governed and sustained through supportive social structures. Section 3.3 will then take a closer look into social change and describe collective action more as a “mean” to produce change in social structures that govern action. Finally, Section 3.4, summarizes the conclusions about the existing literature into what I name as the collective action perspective and explain why it is an applicable lens to synthesize the findings of the individual articles and advance our understanding on inter-organizational value creation.

3.1 Theory of collective action

Initiation of the collective action theory is oftentimes credited to Mancur Olson's 1965 book *The Logic of Collective Action*, which laid out the basic

theoretical foundations of the so-called first-generation collective action theory. Olson had a background in economics, which can be clearly seen in his work, which adopts the so-called economic rationality of individuals as the underlining “model of man” (cf. Jensen & Meckling, 1994). Olson’s basic thesis is that individuals, who participate in groups or other arenas of collective actions, are rational and self-interested benefit maximizers. Therefore, collective action to meet the shared interests of the group that also requires individuals’ efforts can occur only if these collective interests also meet the self-interests of the individuals. This forms a classic question, “What is in it for me?” Olson simply points out that collective action occurs only if there are clear incentives for individuals to participate, coercive pressures such as sanctions governed by the law or regulations, or if the group is small enough creating a sense of social pressure.

A well-established example of collective action, or actually collective inaction, is a classical prisoner’s dilemma, which has been approached from the game theoretic point of departure and described as a non-cooperative game in which the actors are not allowed to communicate or form formal or informal contracts or deals (Kreps et al., 1982). Thus, prisoner’s dilemma can be described as a game in which two prisoners, held in separate cells and interrogated simultaneously, are offered a plea bargain for betraying the other prisoner. If they both cooperate (i.e. neither one “snitches”), both will receive a sentence of one year in prison. If both prisoners betray the other, both will be jailed for 2 years. Finally, if one prisoner betrays but the other remains silent, the one will be set free while the other will serve 3 years (and vice versa). The collective net benefit is thus highest if the prisoners cooperated (neither one defects); however, there is a high motive not to cooperate in order to receive the highest self-interested gain (to walk free). Multiple experiments from single-shot games have shown that such games are uncooperative in their nature and result in defect chosen by both prisoners (Ostrom, 2000). Even in N times repeated games, defecting on all rounds is a game-theoretically optimal strategy (i.e., assuming that the individuals are rational utility maximizers) for both players. Such a situation resembles the state of Nash equilibrium (Nash, 1951), in which players know strategies of the other players and may not gain anything by changing their own strategy, hence the strategy of defect is each player’s best response or dominant strategy. In other words, this means that if a prisoner is betrayed by his/her fellow prisoner he/she can always choose to defect in order to shorten conviction at the cost of the other prisoner (Kreps et al., 1982). Therefore, from the game theoretic and rational choice perspectives, collective action or cooperation seems rather impossible unless one introduces certain external institutions such as coercive government-enforced rules and regulations, making the self-interested gains impossible or at least more expensive (Ostrom, 1990), or if there exists information asymmetry among players (Kreps et al., 1982).

The problem with the game theoretic approach and its general rational economic assumptions is that they fit poorly with the evidence of extensive empirical fieldwork (see e.g. Ostrom, 1990). Empirical findings clearly show

that actors can solve social dilemmas, such as shared usage of a common resource, by communicating with one another and entering cooperative agreements that result in collective action even though it would mean that individuals need to sacrifice their self-interest gains for the greater collective good. Therefore, Elinor Ostrom (1998; 2000) proposes that the traditional economic perspective should be widened by adopting a more behavioral approach describing individuals as rationally bounded, meaning that they do not have perfect information about other players' strategies and neither adopt strategies consistently because of the cognitive limits of humans (see e.g. Simon, 1955). This means that the individual's decision-making process is heavily limited by the cognitive capacity of human brains, which tend to utilize previous experiences, schemas and heuristics as shortcuts rather than fully and objectively analyzing every situation and available strategies (for a review of decision-making theories in an organizational context see Neale et al., 2006). Adoption of such behavioral perspective led to the initiation of so-called second-generation collective action theory (Ostrom & Ahn, 2009).

According to the second-generation theory, the past experiences and socialization into the social rules of the context may determine how one behaves in social interactions (see e.g. Axelrod, 1986). This led Ostrom (1998) to posit that social norms of reciprocity may encourage cooperation rather than defiance in individuals. Furthermore, such cooperative behavior is further encouraged by a high level of trust between the actors as well as the good reputations (i.e., trustworthiness) of the actors. These perspectives have been empirically validated in experimental settings, revealing, for example, that cooperation in finite games can be spurred by allowing the players to choose to play or not to play (Orbell & Dawes, 1993), as well as to interact with each other to build trust, leading to higher levels of cooperation (Frank et al., 1993).

In general, the behavioral perspective on collective action suggests that collective action is a context-dependent phenomenon, meaning that individuals aim to match behavioral patterns described in the socially constructed sets of norms developed between those who interact (Axelrod, 1986; Ostrom, 2000; Ostrom, 2002; Dietz et al., 2003). This was a rather drastic contribution to previous accounts on collective action, which assumed that collective action can be only the result of coercive pressures such as state-induced laws sanctioning free-riders (Olson, 1965). Instead of relying purely on external authority as a governing principle, Ostrom (1990) showed (both game-theoretically and empirically) that actors facing a social dilemma requiring collective action are capable of agentic behavior and able to negotiate about situated rules and norms (i.e. institutions) to self-govern their actions. The behavioral approach may on the one hand lack precision in predicting the behavior, since it pretty quickly becomes difficult to model all structural variables (e.g., group size, group heterogeneity in interests and resources, time horizon, cost of producing public goods) and their complex interrelations (Ostrom, 1998). On the other hand, the approach allows one to build the argument that collective action can be governed by social structures which may be the result of evolutionary processes (trial and error) but can be self-governed and at least partially designed by the

actors themselves, when they engage in constructive dialogue about the rules of the system (Axelrod, 1986; Ostrom, 2000).

By accepting the bounded rational model of human behavior, we take a step towards a more sociological approach, meaning, as proposed also by Ostrom, that social structure affects individuals' (as well as organizations') actions and thus their willingness to cooperate. Ostrom uses the term "social norms," which she describes as shared understandings about actions that are obligatory, permitted or forbidden (Crawford & Ostrom, 1995) — i.e., legitimate. She further posits that norms are culturally contingent, meaning that norms vary from culture to another. Interestingly, similar theoretical underpinnings are strongly prevalent in neo-institutional theory⁶ (Greenwood et al., 2008).

This prolific stream in organization studies builds on the basic argument that organizations embedded in the social context, often labelled as an organizational field, seek for social acceptance or legitimacy and therefore compliance with socially constructed institutions such as norms, conventions, shared beliefs, values and taken-for-granted practices (DiMaggio & Powell, 1983). This may lead organizations to adopt behavioral patterns that are inefficient or irrational but ensure legitimacy in the eyes of the other players in the field (Meyer & Rowan, 1977). Legitimacy then might be more necessary for organizational survival than efficiency because organizations need to appear legitimate to receive access to external resources (Suchman, 1995).

The benefits of applying an organizational institutionalist lens in the special case of collective action is that it does not just describe institutions as mechanistic rules, which external governors (such as the state) impede, but as socially constructed structures through which actors create meaning for their actions (Scott, 2001). Therefore, adopting an organizational institutionalist lens into a collective action situation may give us improved understanding of how the social environment, as a whole, enables or constrains collective action and, on the other hand, how collaboration and interaction of social actors, in our case being organizations, may actually lead to changes in institutional environments, spurring more collective actions among multiple organizations (Philips et al., 2000).

Neo-institutional theory therefore allows us to put the (collective) action into the context, and more recent developments especially (e.g., Fligstein & McAdam, 2012) may help us understand the dynamic relationship between the social structure and agentic action. Therefore, in the following I will introduce the basic rationale behind the neo-institutional theory, describing how a social structure or institutional setting may enable or constrain collective action. After

⁶ The term neo-institutional theory might be confusing here because it is easily mixed with new institutional economics (see, e.g., Williamson, 1985), which share the same early origin in institutional economics (see e.g. Commons, 1931) but have become completely different streams of literature. Neo-institutional theory focuses on the sociological nature of institutions while new institutional economics is predominantly interested in transactions. To avoid confusion, I use the term neo-institutional theory to solely refer to the organizational institutionalist stream.

that I will emphasize more recent, yet developmental, views on how collective action can alter social structures to spur more collective action.

3.2 Institutional structure supporting collective action

Like the behavioral stream in the theory of collective action, the neo-institutional theory originated as a counterforce to the rational economist view, which dominated post-war discourse of business administration and depicted firms as a rational production function (Greenwood et al., 2008). Thus, neo-institutional theory was set to seek answers to questions like why organizations exhibit organizational arrangements that defy a rational explanation (Meyer & Rowan, 1977). As an explanation, the theory offers a socialized view of organizational life, meaning that in order to be successful, organizations need to achieve social acceptance and legitimacy, instead of maximizing utility in the most efficient way. Therefore, the neo-institutional lens applies to collective action situations on organizational and inter-organizational levels by giving potential explanations why organizations may act co-operatively even though it would be against their rational self-interests.

The early writings of neo-institutional theory were preoccupied with a notion that organizations were embedded in organizational fields, the arena of social life consisting of key organization such as suppliers, producers, customers, field agencies, and that the field created institutional pressures to organizations seeking acceptance by the other field actors (DiMaggio & Powell, 1983). In the other words, consensus and shared understanding among organizations within the field defined the legitimate form, which a major portion of organizations become to mimic making them to appear similar leading to a phenomenon called isomorphism (*ibid.*). Organizational fields thus create a unique social structure, defining the rules of the game by positing institutional pressures to organizations, who need to comply in order to appear legitimate (Wooten & Hoffman, 2008). Organizations are especially vulnerable to three different forms of institutional pressures: coercive (mandated by laws and regulations), normative (formed by the professional organizations) and mimetic (copying successful organizations) (DiMaggio & Powell, 1983).

An organizational field is thus a central concept in neo-institutional theory and can be seen as an extension of Ostrom's concept of local communities as a governance system for collective action and therefore allowing examination of collective action among organizations, not just individuals. However, the concept of an organizational field is also a complex one since it is rather overarching making it hard to draw boundaries to one field, which basically complicates Ostrom's (1990) basic design principle of definable system boundaries as a governance mechanism for collective action. Furthermore, organizational fields are not just hard to draw in the horizontal dimension, but rather complex to define in the vertical dimension, and are often described as nested systems, in which different organizations and individuals are embedded and all interacting with each other (Holm, 1995).

To bring clarity into the concept of the field and to create more generic theory, Fligstein and McAdam (2011; 2014) introduced a concept of a strategic action field (SAF), which they describe as a meso-level social order in which actors (organizations and/or individuals) interact with each other to create a shared meaning about the purpose of the field. For them, a single organization can comprise a field, but so can multiple organizations, which is in line with Holm's (1995) argument about fields as nested systems. Fligstein's and McAdams's key contribution is to describe fields as arenas for collective strategic action, or purposeful efforts of actors to achieve collective goals, and simultaneously noting that such efforts are affected and affecting by the current social structure or set of common understandings and field rules (e.g., institutions). Thus, from now on I will use the term "field" in a much broader sense than just as an organizational field (which is typically assimilated to complete industry sectors) to describe all social orders comprising multiple interlinked actors sharing common patterns of understanding about the purposes of the field. This is a rather pragmatic approach, which allows the investigation of collective action among organizations while simultaneously accounting for potential individual-level actions.

All fields are thus arenas for socially constructed and institutionalized rules about the expected behavior of field participants. Scott (2001) introduced three pillars of institutions, legislative, normative, and cultural cognitive, to describe varying sources of governance mechanisms. The two first ones are rather straightforward conceptualization, describing the impact of governing laws as well as professional norms, such as field-level standards and practices, on organizational behavior. However, the third cultural-cognitive pillar adds complexity into theorization while emphasizing the construction of shared understandings through interaction between organizational actors (Berger & Luckmann, 1966). Thus, Scott (2001) essentially spans the ontological description of institutions from purely human-devised rules, governance structures and agencies (a view more prevalent in [new] institutional economics, see e.g. North, 1991⁷) to cover also socially constructed and shared meanings leading to rather general definition of institutions as (Scott, 2001: p. 33): "...cognitive, normative, and regulative structures and activities that provide stability and meaning to social behavior. Institutions are transported by various carriers - culture, structures, and routines - and they operate at multiple levels of jurisdiction."

While being ambiguous, this definition is also rather powerful in a sense that it allows plural interpretation of institutions but also shows that they operate on multiple levels, thus affecting the behavior of organizations as well as individuals within organizations. This forms the rationale to describe fields as Russian doll-like, nested systems (Fligstein & McAdam, 2011; Holm, 1995; Marchington, & Vincent, 2004). This means that organizations are affected by

⁷ However, Commons (1931) already tried to span economists' definition of institutions to include different social forms of collective action and control affecting individual choices ranging from unorganized customs to such more organized laws and regulations.

higher level social structures (e.g., governing laws, industry standards), and individual behavior may be determined by internal structures of the organization (e.g., an incentive system). However, this nested structure does not mean that individuals would not be immune to field-level or general societal structures such as laws or even religions (or other belief systems) and, more importantly, that individual or organizational actions could not implement changes in the social structures.

This nested view has further led to the adoption of the so-called institutional logic perspective (Friedland & Alford, 1991; Thornton et al. 2012), which describes society as an inter-institutional system, meaning that multiple institutional prescriptions of legitimate action (i.e. institutional logics) affect the behavior of organizations as well as that of individuals when they seek legitimacy and try to construct meaning in their social lives. Thornton and Ocasio (1999; p. 804) define institutional logics as “the socially constructed, historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality.” Thus, institutional logics provide actors a common vocabulary of formal and informal practices and rules that guide managerial attention and may not just enable but also constrain their actions (Ocasio, 1997).

A key contribution of the institutional logic perspective to the neo-institutional theory is to depict society as an inter-institutional system, which allows the notion that there exist multiple logics that are continuously affecting organizing (Friedland & Alford, 1991)⁸. Thornton et al. (2012) identify seven ideal types of logics (family, religion, state, market, profession, corporation, and community) deriving from greater institutional orders of the society and being present to varying degrees in all social life. Such pluralistic view of institutions allows us to better understand why organizations and individuals that appear similar in their social backgrounds may end up applying dramatically different behavioral patterns. Furthermore, the multiple logics perspective posits that instead of facing purely coercive, normative and mimetic pressures of one logic, actors need to cope with rather divergent and even conflicting institutional demands created by existence of multiple logics (Greenwood et al., 2011). Sometimes the strong presence of multiple logics may hinder organizations' and individuals' actions when it is not clear which is the legitimate path to take. Such situation is labelled as institutional complexity (Greenwood et al., 2011; Vermeulen et al., 2016) and is strongly present in many arenas of organizational life, such as in private health care organizations, which need to simultaneously cope with the pressures of bureaucratic legislation and the professional norms of medicine as well as stay profitable in a competitive market (Reay & Hinings, 2009; Scott, 2000).

⁸ This contrasts with DiMaggio's and Powell's (1983) original assumption of organizational fields as monolithic and isomorphic structures and gave a more fine-grained approach to analyze and understand the complex empirical phenomena.

How does this all then relate to the collective action? In one way the neo-institutional theory can be seen to go beyond the behavioral approach adopted by Ostrom and colleagues, which builds on the bounded rationality of individuals and emphasizes trust, reciprocity and reputation as mechanisms of governance. By that I mean, that instead of emphasizing localized communal solutions (Ostrom et al., 1999) to collective action problems, neo-institutional theory allows us to bring societal (or even transnational) levels into the picture (see, e.g., Ansari et al., 2013). Thus, an organizational institutionalist lens can help us understand why different institutional logics may cause variation in the goals of the actors (e.g., private and public actors seek alternative and mutually incongruent routes to legitimacy) and therefore complicate interactions between actors when they try to set up localized self-governing structures for collective action. In a similar vein, Ostrom (1998) posits that structural variables such as symmetry of actors' interests and resources affect the likelihood to develop shared norms, but she does not explain that such interests might be contextually contingent and that the potential asymmetry might be caused by the actors' adherence to different institutional logics. Therefore, neo-institutional theory allows bringing the social embeddedness of the actors into the picture, showing that actors are not atomistic, rational, and calculative in their actions but that their decisions are indeed cognitively bounded and affected by legitimacy judgements of others. In turn, legitimacy itself results from the process of boundedly rational cognitive processing when an assessor and an assessee interact with each other and the environment (Kostova & Zaheer, 1999).

Surprisingly, only a handful of studies have applied a neo-institutional theory lens to collective action (and vice versa). Ansari et al. (2013) show how different actors adhered to conflicting institutional logics were able to re-frame the meaning of the climate change and to engage in collective action to start mitigating the global threat. They emphasize the construction of shared meaning through social interaction as means to overcome conflicts in logics and to create new frames for the problem at hand. However, such a process is far from linear since the conflicting logics of actors create a need for iterative framing efforts in order to reach the consensus among varying parties. This perspective, thus, very well explains the so-called trial-and-error type of nature required for creating governance structures of collective action (Ostrom, 1998).

Another influential piece linking neo-institutional theory with collective action is Holm's (1995) in-depth description of how Norwegian fishermen organized themselves and engaged in collective action to create political pressure to introduce a mandated sales organization (MSO) that formed a legal fishermen-owned monopoly to control the Norwegian fish-market. In brief, fishermen collectively stood up against merchants, who had pushed down fish prices. The fishermen lobbied the Norwegian government to pass a new legislation that forced fish sales to be channeled through MSOs, which guaranteed an average price for fishermen no matter the real market demand and price. Holm argues that fishermen's hardship of declining fish prices resembles the first-order collective action problem (one fisherman was not able

to affect fish price, but a collective of them could restrict supply enough to increase prices), which was solved by introducing social rules (new legislation and market practices) enabling collective marketing of herring. Thus, through their strong organized lobbying, supported by the shift of the political power to the Labor Party, the fishermen were able to first shift the political climate to be pro-fishermen by framing their problem as legitimate and urgent, eventually leading to changes in legislation that granted monopoly rights to the fishermen-governed MSOs. This empirical example shows that although collective action became governed by a formal law, producing such institutional change required shifts in the informal and even ideological value base of the Norwegian political system forming a climate spurring collective action. Interestingly, the initial first-order collective action problem (control over market price of herring) was thus tackled by solving the second-order collective action problem by mobilizing other fishermen and politicians into collective action (political lobbying by the fishermen).

The link between institutional context and collective action as a form of inter-organizational collaboration therefore seems rather evident (Phillips et al., 2000), when on the one hand the available socially constructed prescriptions of legitimate action, such as institutional logics, arguably enable or constrain collective action and actors adopt practices (legitimate forms of actions to engage in or eschew collective action) already made available in the field. On the other hand, new situated practices to achieve collective action can be created when actors engage in negotiations about the joint goals and the means to achieve them, which shows (as argued also by Ostrom [2000]) that actors can socially construct new situated social orders and governance systems for collective action, which then possibly become institutionalized (Holm, 1995; Phillips et al., 2000).

3.3 Institutional change: collective action as a means to change institutional structure

Institutions are not stable entities but subject to change while they are interpreted, enacted, and reproduced in daily and even mundane interaction (Thornton et al., 2012). Institutional change has long been a central topic in neo-institutional theory (Dacin et al., 2002), and different theoretical claims have been made to describe institutional change as a result of external jolts (Meyer et al., 1990), deliberate actions or institutional work (Lawrence et al., 2013) by individuals often labelled institutional entrepreneurs (DiMaggio, 1988; Greenwood & Suddaby, 2006), or undeliberate reproduction and situated modification of actors enacting and inhabiting institutions (Hallett & Ventresca, 2006). An argument more relevant here is that collective action and inter-organizational collaboration can result in change in the established social structure (Hargrave & Van de Ven, 2006; Lawrence et al., 2002). In that sense, Holm's (1995) contribution is crucial since he links collective action to institutional change. Furthermore, he coined an important term, "paradox of

embedded agency⁹,” which questions how social actors can change the social structure that should define their behavior. Holm argues that social structure such as institutions are multilevel systems and that each level is simultaneously a framework for and a product of action, defining and re-defining action, which enables renewal and change of the structure. Such a view is later on supported by many others (e.g., Seo & Creed, 2002; Thornton et al., 2012). More particularly, this means that because of the interconnectedness and inherent complexity of social systems (e.g., co-existence of multiple institutional logics, layered nature of fields as well as their horizontal interconnectedness) individual actors, adhered to multiple logics, have an agentic capacity to deviate from the existing norms and engage in efforts to mobilize others to solve socially pressing problems by spurring collective action, which eventually may lead to institutional change (Battilana, 2006; Battilana et al., 2009; Thornton et al., 2012). In the following sub-sections, I will explain these views in more depth.

3.3.1 Change initiated by few

Within neo-institutional theory, Holm (1995) was among the first to suggest the idea of collective action as a mechanism of institutional change. However, the role of collective action in social change has been extensively used in the literature on social movements (see e.g. McAdam, 2017). Instead of bringing in that varied body of literature, I focus on the more recent work by Fligstein and McAdam (2011; 2012), who aim to bind together the separate theories of organizational institutionalism, collective action, and social movements to describe collective action as an essential prerequisite for reaching changes in social structures. However, collective action does not spawn in a vacuum, but is claimed to be a result of deliberate mobilizing efforts of individuals possessing strong social skills (Fligstein, 1997) — that is, the ability to motivate cooperation by providing other actors with common meanings and identities, which justify joint strategic actions towards a common goal (i.e. collective action). Such a view of reflective individuals, i.e., institutional entrepreneurs (DiMaggio, 1988), capable of agentic behavior and strategic action indeed challenges the initial over-socialized tenet of neo-institutional theory. Hence, such an agentic view potentially helps solve the paradox of embedded agency (Battilana et al., 2009; Hardy & Maguire, 2017) and therefore the second order collective action problem (Ostrom, 2000).

The social skills of institutional entrepreneurs are based on the ability to relate to the situation of others in order to generate a meaning for the action that is purposeful not just for the mobilizer but those to be mobilized (Fligstein, 1997). In more mainstream sociology the individual characteristic or capability to think against the prevailing social order is labelled as reflexivity or reflective capacity, which is argued to stem from the individual's past experiences and

⁹ However, Holm himself never used the exact term but referred only to “the fundamental paradox of new institutional theories of organization” (Holm, 1995; 398). Still, he has been often credited for introducing the term (see e.g. Battilana, 2006; Garud et al., 2007; Seo & Creed, 2002).

natural character and occurs in certain variations of the population (Archer, 2010). In addition to the individual's agentic orientation, agentic or change-producing actions are conditioned by the social reality itself and defined as temporally and socially embedded processes of social engagement initiated as responses to the problems in prevailing structures, informed by the past and present (e.g., individual experiences and the prevailing structures) but oriented towards the future by imaging alternative ways to organize social life, eventually reproducing and transforming the structures (Emirbayer & Mische, 1998). Simply put, when the existing structure hinders social life too greatly and someone happens to have the capacity and courage to think alternatively, a spark of institutional change may be lit.

Indeed, it is the embeddedness of actors in their social roles and field-level position amplified by an actor's resources and power that may determine and potentially restrain actors' interests and behavior. On the one hand, strong social position of individuals (within organization and across the field) seems to be a necessity of mobilization for change (Battilana, 2006). Therefore, central and powerful organizations, or so-called elite actors, might act as potential triggers of change (Greenwood & Suddaby, 2006; Rao et al., 2003). On the other hand, such central actors might be too embedded into the existing structures. Hence, instead of triggering change, they may maintain the *status quo*, either by undeliberate reproduction of existing practices or deliberate institutional maintenance when having too much to lose if the existing structure (e.g., power balance) is shaken (Fligstein & McAdam, 2012). Indeed, central players, often labelled as incumbents, may have invested heavily in existing technologies or organizational practices that make them too inflexible or reluctant to change compared to more flexible and potentially innovative peripheral actors often labelled as challengers (Leblebici et al., 1991). This shows that even socially skilled mobilizers are not immune to the prevailing social structures, which may restrain their actions.

In addition, field-level conditions, such as stability, may determine what possible mobilizing tactics to use. For example, in stable (Fligstein & McAdam, 2012) or mature fields (Greenwood & Suddaby, 2006) most likely exists a formalized norm structure and field-level hierarchy (e.g., because of legislation or other regulative structures as well as social categorization of firms) prescribing the roles and actions of actors. These institutional factors may shape a firm's subject position so that the firm may become a prisoner of its role (Hardy & Maguire, 2017). For example, it may not be socially acceptable (because of shareholder expectations and the Companies Act) that a major bank starts to fulfill only a social cause and resigns from profit-making, but on the other hand a major bank might even be protected from a bankruptcy because of its large size, i.e., being too big to fail (ibid.). Stable environments may start to favor the incumbents who initially set up the rules, forming a power imbalance between incumbents, those trying to maintain the status quo, and challengers, those trying to impose changes into current structures (Fligstein & McAdam, 2012). However, the divergent interests of both are served through strategic actions of the socially skilled actors but require different tactics, ranging from

using direct authority, typically used to maintain the status quo, to setting a joint agenda and providing frames for the joint revolutionary actions among challengers.

Framing, as an activity to construct meaning to the actions, is in the core of mobilization, and past research has shown that more than single frames exists (Benford & Snow, 2000). Instead, new frames are constructed and revised to mobilize others and a field can even enter a framing contest (Kaplan, 2008) or interpretative struggle (Hardy & Maguire, 2010) over diverging and conflicting frames or narratives about what should be done, why, by whom and how. Considering that frames, as means of managerial sensemaking¹⁰, are typically situated or constructed within and according to the terms used in the existing social structure, the incumbents may have a higher hand in such contests because they may settle for maintaining the current situation, which is familiar to the wider audience (Fligstein & McAdam, 2012). This resembles the view of power relations in institutional change, which assumes that resourceful actors are in a better position to push the change or maintain the status quo. However, it is not just about tangible or intangible resources and power *per se*, but the actor's capability to occupy a subject position, providing them legitimacy in the eyes of diverse stakeholders (Hardy & Maguire, 2017). Such perspective indeed underlines the importance of framing and other rhetoric strategies in creating legitimacy for the change initiative (Suddaby & Greenwood, 2005; Erkama & Vaara, 2010).

Past research has also shown that incumbents and elite actors can start pursuing institutional change when they hold a social position between different fields (such as industries) and thus become aware of other possible logics of action and realize that the current field is unfavorable to them (Hardy & Maguire, 2017). Empirical examples from the accounting industry Greenwood & Suddaby, 2006), French cuisine (Rao et al., 2003) as well as the Canadian forestry sector (Zietsma & Lawrence, 2010) support the view that such boundary-spanning behavior may lead individual actors to pursue institutional change when they visit, gain knowledge of, and start to adopt practices from other fields.

3.3.2 Change achieved by many

In addition to the spark and facilitation by a decisive actor, realization of institutional change depends on collective action (Hargrave & Van de Ven, 2006) and solving the second-order collective action problem or how to collectively define and govern the rules sustaining collective action (Holm, 1995). Framing and agenda setting are important actions to initiate institutional change as long as they lead to the mobilization or formation of social structures

¹⁰ Sometimes referred to as anchors or frame of reference describing cognitive baseline or individual knowledge structure formed through past experiences of individual and therefore affected by existing social structure. New ambiguous information is compared and analyzed through these existing frames in cognitive process of managerial sensemaking (for a review see Walsh, 1995).

of collective action, such as constructing networks of actors pushing the change and enacting new institutional arrangements (Hargrave & Van de Ven, 2006). Such collaborative networks of multiple actors are formed through social interaction among potential members and can therefore be described as negotiated orders (Phillips et al., 2000), meaning that such networks are social orders in which rules and agendas are formulated through interaction (Bechky, 2011; Fine, 1984). A classic example of such a negotiated order was depicted by Strauss et al., (1963), who showed that rules and structures in a psychiatric hospital resulted from situated negotiations and agreements between doctors, nurses, and admin staff, who shared different professional and institutional backgrounds forcing them to overcome potential conflicts and misunderstandings about the necessary treatment and care activities. In other words, the different actors need to form a joint meaning about the necessary actions to be taken in order to form and enact new practices and routines. Strauss (1982) further argues that such negotiations are evident at organizational boundaries (i.e. inter- and intra-organizational relations), where diverse actors come together. Thus, a change agent can only spark and facilitate such a social process by providing an initial frame of references about a new social structure, which is then to be created through negotiated interactions¹¹.

The process of negotiation seems to be especially relevant when multiple institutional logics are present because such institutional pluralism or *de facto* complexity hinders collective framing when the actors adhered to different logics share different cognitive schemas and even basic vocabulary (Delbridge & Edwards, 2013; Philips et al., 2000). Bishop and Waring (2016), for example, showed how the co-existence of institutional logics of medical professionalism and market-managerialism started to hinder the organization of health care operations in the field of English National Health Services (NHS) and how situated negotiations among representatives of different logics paved the way for a new, more settled, negotiated order. The complex process of negotiations involved, for example, the formation of collaborative networks among professional groups who adhered to the same logic (i.e., unification doctors and nurses) and used professional rhetoric (i.e., medical justification vs. efficiency arguments) to gain legitimacy to their cause. Despite the initial disagreement, the process of negotiations emphasizing open interaction among diverse groups allowed finding of a shared meaning and an organizational settlement combining parts of both logics into organizational structures, practices, and values. Reay and Hinings (2009) report similar findings, underlining the importance of formation and interaction through cross-professional relationships in the Canadian health care context.

¹¹ Indeed, Strauss (see, e.g., 1982) noted that all social orders are negotiated orders, but that such negotiations are contingent on the structural context (higher level social institutions) This led him to distinguish structural context from negotiation context. The latter is a situated context, in which interaction takes place, such as actor characteristics, power imbalance, type of problem, etc. Strauss also argued that the latter cannot be understood without understanding the former. This resonates heavily with more the recent nested system perspective on institutions and institutional logics (Holm, 1995; Thornton et al., 2012).

From the theoretical perspective, such a radical change process aiming to combine different institutional logics to form a new negotiated order or to move from one organizational settlement to another can be defined as organizational hybridization, which is contingent on the degree of cognitive novelty of the new settlement, among other factors (Schildt & Perkmann, 2017). Such views on the process of negotiations and interaction as essential stages in forging the formal and informal rules and institutions to govern collective action are in line with Ostrom's (1990) design rule approach and can be seen as a key prerequisite for the self-organizing capacity of the collective action system. Indeed, negotiations and informal governance through sharing the decision-making rights are crucial means to govern ill-defined situations where it is not possible to formulate clear contracts neither to exclude actors due to their special capabilities or interests over the system to be governed (Gil & Pinto, 2018). Such localized solutions to collective action problems may then be diffused and applied in other cases, potentially spurring more widespread institutional change in the field (Lawrence et al., 2002).

3.4 Summary of collective action perspective

In this section, I have combined the key insights of two diverging bodies of literature: namely, theory of collective action and neo-institutional theory of organization. The key tenet of the both streams of literature is that any action, collective or otherwise, does not appear isolated from the social structure but such a structure starts to mediate the actions of individuals through various formal or informal institutions. This is also the key point of discrepancy between these two streams since economists view institutions more as humanly devised rules and regulations set for the purposes of economic exchange (North, 1991). Meanwhile, organizational theorists see institutions as socially constructed elements comprising conventions, practices, myths, beliefs and values and not just constraining but enabling by providing meaning to all social life (Scott, 2012). I have chosen to follow the latter group and adopted the more sociological approach to institutions and collective action. This is because I see that despite its predicative power, especially on the macro-level, the economist view may lose much of the richness of actual social situations on the micro-level and therefore cannot fully explain why some groups of organizations collaborate while the others do not. Such tenets are shared by some political scientists, who have adopted the so-called behavioral perspective on collective action (see e.g. Ostrom, 1990; Dietz et al., 2003).

When accepting the basic tenet of organizational institutionalism, namely that the actions of organizations and individuals are at least partially determined and mediated by the social structure, one gains a basic understanding that why collective action is sometimes difficult to achieve. This is because the existing institutional structure (i.e., institutional logics) may prescribe legitimate behavior to be non-cooperative. For example, the Western world is fundamentally based on multiple market-related institutions such as open markets, transactions, private corporations, shareholder value, private capital,

etc., which arguably form a logic of market strongly dominant at least in Western corporate life and emphasizing competition over collaboration (Ocasio et al., 2017). However, in the other sectors of social life such as within communities, families and majority of religions, collaboration is valued and helping others is a fundamental virtue. This shows that our society is an inter-institutional system in which multiple social rationales or institutional logics co-exist, some being more aligned towards collective action than others (Friedland & Alford, 1991).

However, because of this inter-institutional nature of fields, one should not reductively say that, for example, market logic dominates in mature fields, as the earlier neo-institutionalists tended to state, when describing fields as monolithic structures (see, e.g., DiMaggio & Powell, 1983). Instead, multiple recent empirical illustrations (e.g. Lounsbury, 2007; Reay & Hinings, 2009; Thornton & Ocasio, 1999) suggest that fields are institutionally pluralistic when multiple logics are at play. However, only a very few of such empirical illustrations (for an exception and a transnational level of analysis see, e.g., Ansari et al., 2013) are focused on understanding the role of field-level structures in enabling or constraining collective action and even fewer on discussing how to overcome constraining effect of institutions or to solve a second-order collective action problem (except, e.g., Holm, 1995).

This literature review also reveals that collective action systems are not stable ones, but as with any social structures are subject to constant change. For example, Ostrom (1990) describes governance systems set up for collective action as following evolutionary or trial and error patterns through which inefficient institutional arrangements are eliminated and only those ensuring collective action experience retention. This clearly links collective action to institutional change, describing it as both an outcome of the change (as the end) and as a mediator of the change (as the means). However, past discussion on institutional (or any social) change very quickly turns into the so-called paradox of embedded agency or, in the context of collective action, the second-order collective action problem (Holm, 1995). Conditional factors such as an actor's agentic and reflective characteristics and capacity for strategic actions as well as cross-boundary positions are suggested as potential moderators of structure-induced action, forming a way out of this paradox, and enablers of triggers to actor-initiated change (Archer, 2010). Furthermore, mobilization of collective action forms a necessary mechanism to push such change and reach a new settlement. Despite the theoretical attractiveness of such change process through strategic action (Fligstein & McAdam, 2012), the empirical illustrations of collective action as both means and ends of institutional change remain scant.

The aim of my doctoral research in general has been to understand how actors can engage in inter-organizational value creation. However, this compiling part in particular aims to synthesize the findings of the original publication by focusing on collective action as the very means and the end to inter-organizational value creation. This forms the motivation to better understand how actors can overcome the second-order collective action problem to form

inter-organizational or collective action systems spurring collective action that permit joint value creation. From a theoretical contribution perspective, I believe that more fine-grained empirically grounded analysis could help further strengthen the theoretical argument about the moderated effect of social structure on (collective) action among multiple organizations (Delbridge & Edwards, 2013). The moderated effect is analytically important here because it fundamentally suggests that a social structure (i.e., institutions) defines action only partially and that there exist multiple other contextual conditions, such as actor-based characteristics, which may start to condition or moderate the action-defining effect of the structure and therefore overcome the paradox of embedded agency.

I will explain this view in more depth in Section 4 by borrowing ideas from critical realist ontology to build an analytical framework of conditioned action. I will then use the framework to synthesize the findings of four articles. From a more pragmatic and practical perspective, I believe that the empirically grounded examination will give us increased understanding of how collective action systems can be set up and maintained to create value on the systems level (e.g., societal value in addition to self-interested business value) when going beyond the capabilities of a single actor, be they individuals or organizations.

4. Methodology

As the reader might have noted, the overall dissertation, consisting of the individual articles and this compiling part, forms a nested structure, which means that this compilation builds on the findings of individual articles but while approaching them from the collective action perspective, it aims to contribute of its own right. Similarly, as each article has the fully described method of its own, this compilation, as “the potential fifth article”, has a specific method used for synthesizing and complementing the findings of the four articles. In this section, I will focus on describing that method.

However, I will begin this section by explaining my philosophical underlining that guided the synthesis efforts by forming a simple but powerful analytical framework explaining why overcoming of the second-order collective action problem (i.e. institutional change) is possible in the first place. My philosophical stance was by no means clear when I began my doctoral studies and research but has become contested and gradually clarified during the journey. Fortunately, implicit choices during my journey (e.g., to collect and focus on empirical data about events and actions) and while writing the individual articles suited and allowed the utilization of critical realism as a lens in my synthesis without creating major idiosyncrasies or discrepancies.

4.1 Critical realism

I ultimately base my philosophical underlining on a simple notion, that social structures, such as institutions, are real phenomena meaning that they exist independently of researchers' examination of them (Ocasio et al., 2017). This is rather contrary to the social constructivist view of reality (Berger & Luckman, 1966), which originally formed a basis for organizational institutionalism and treated institutions as phenomena occurring, and to be understood, only through social interaction (Suddaby, 2010). However, accepting institutions as a real phenomenon and adopting a critical realist ontology (Bhaskar, 1975) is argued to solve the paradox of embedded agency plaguing organization theory in general (Fleetwood, 2005; Reed, 1997) and organizational institutionalism in particular (Delbridge & Ewards, 2013; Leca & Naccache, 2006). Furthermore, I have positioned my research in the cross-road of two extremes, the theory of collective action, apprising a rather positivist view on science, and organizational institutionalism, leaning towards social constructivist paradigm.

Thus, I argue that adopting a critical realist ontology may help solve potential tensions between these two different theoretical discourses. I explain this more in-depth in the following.

Critical realism, a perspective on philosophy of science initiated by Roy Bhaskar (1975), is based on the assumptions about the world as an open system and stratified ontology consisting of strata of the real, actual, and empirical. According to Bhaskar, a researcher can observe the domain of the empirical, which is based on experiences (i.e. observations) on the events that occur in the domain of the actual. Based on one's observation's (or experiences), a researcher can then aim to explain the potential interrelationships of the events (i.e. to describe the actual) which forms the basis for theorizing. However, the events are caused by generative mechanisms or the structure of the domain of real. The real occurs without the researcher's analysis and therefore potential flaws in theorizing as well as corrective nature of science are possible because of our limited capability to "experience" (observe the empirical) and "explain" (theorize the actual) the real through the domains of the empirical and the actual. This stems from the nature that the world is an open system and always subject to multiple contextual factors affecting potential causal powers between various generative mechanisms. Therefore, observations occurring in the domain of the empirical used to form theories about relationships between events of the actual never fully represent the real, but scientists with their increasing capability to include more contextual factors will asymptotically approach the real leading accumulation of knowledge.

When adapted to the context of social sciences and more specifically to the investigation of interplay between social structure and individual action (i.e., agency), it should be noted that Bhaskar's stratified view is not a reductionist view. This means that the three ontological strata are interrelated but not hierarchical, which means that since the real (i.e., social structure) occurs without our analysis of it, it is possible that one is emancipated from the structure to make one's own (even falsified) interpretations based on one's experiences in the domain of the empirical. More precisely Bhaskar states that: "men must be causal agents capable of acting self-consciously on the world." (1975; p. 20). This is an important tenet picked up by Leca and Naccache (2006), who adopt the critical realist view to organizational institutionalism and argue that institutions represent the events of the actual while institutional logics belong to the domain of the real, both exogenous to the actor, making them observable through experience in the domain of empirical. Thus, a social structure consisting of institutions and institutional logics starts to represent a nested structure similar to the arguments of Holm (1995) and Fligstein and McAdam (2014). I have summarized this stratified ontological approach in Table 3, which includes Bhaskar's original placement of structure, events and experiences within strata of the real, the actual, and the empirical combined with Leca and Naccache's (2006) neo-institutional application in italics. However, I have replaced institutions, corresponding events in Leca's and Naccache's formulations, with conditioned action that to me resembles a situationally enacted institution, because such a contextually conditional

enactment of an institution offers a key to institutional change. More precisely this means that under certain conditions an institution is reproduced according to prescriptions of the higher-level structure (i.e., an institutional logic) but under different conditions there might be contextual variance in the reproduction of institution, which opens avenues for institutional change (Delbridge & Edwards, 2013).

Table 3. Stratified ontology of the critical realist view

	Domain of real	Domain of actual	Domain of empirical
Structures <i>Institutional logics</i>	V		
Events <i>Conditioned action</i>	V	V	
Experiences	V	V	V

Source: Bhaskar, 1975; Leca & Nacache, 2006

Thus, the critical realist perspective is based on the ideal that actors do not construct social reality or structure, but the structure is pre-existing, however subject to change based on actors' actions guided by one's interpretations or enactment of the structure. Before fully understanding this analytical perspective, I need to clarify the critical realist view on causation.

The basic tenet in critical realisms is that the structures or generative mechanisms of the real can have causal powers, simply meaning that one phenomenon can trigger another phenomenon and that these powers occur independently of an examiner (Bhaskar, 1975; Sayer, 2000). This is rather evident especially in the natural world when, for example, a rain causes a river to flood. Researchers can then observe that a heavier rain causes more flooding (experiences in the domain of the empirical) and build a model explaining the linkage of these two events: the rain and the flood (in the domain of the actual). However, as mentioned, critical realism is not reductionist by its nature. Instead it accepts that multiple contextual conditions as well as emergent properties of structures (structure may have different causes than its conjectures) affect the potential cause of events (Elder-Vass, 2010). In the aforementioned example, construction of a levee reduces flooding (conditional factor) or the water that caused the flooding has very different (emergent) properties than its components, hydrogen and oxygen.

Indeed, when applied in the investigation of social worlds, conditional factors, and emergent properties, such as differences in actors' perceptions, interpretations as well as the pluralism of the structure itself, will lead a structure to cause different outcomes in different contexts (Sayer, 2000). This stems from the fact that social as well as natural worlds are open systems and therefore mere observed conjunction of empirical events (within the empirical realm, which can be seen as a closed system) does not fully explain the causal powers of the real when infinite number of sources for variation exist. However, despite claiming that social structure is real and not socially constructed, critical realists agree that meaning (about the structures) is socially constructed, which

gives room for different situated interpretations of institutions and therefore enables their variation and change through time, when the institutions are enacted by diverse actors.

Much like the arguments introduced in Section 3, critical realism sees social change as a dynamic process, in which social structure and agency are temporally linked. Archer (1995) argues that change in social structures (such as institutions) occurs through morphogenetic cycles,¹² meaning that structure sets parameters that define action at time t_1 , but at time t_2 an actor interprets these social guidelines of the structure in a way that causes a certain type of social interaction that either complies with or diverges from the structure (depending the outcome of individual's cognitive reflection process [i.e. bounded rationality]). This will then potentially result in the elaboration or change in the structure at time t_3 . Therefore, to analyze social change, Archer suggests analytical dualism, which means the treatment of agency and structure as separate analytical phenomena according to the stratified ontology. In other words, structure cannot be reduced to action. This deviates from earlier structuralist views such as those of Giddens (1984), who argued that structure and agency are mutually constitutive and can thus be researched only as an inseparable entity. In analytical dualism structure and agency interrelate causally and temporally (as the morphogenetic process shows) but they remain ontologically separate (Porpora, 2013).

The analytically dualistic perspective based on critical realist stratified ontology has been suggested as a potential key to solve the paradox of embedded agency in organizations studies in general (Reed, 1997) and in organizational institutionalism in particular (Delbridge & Edwards, 2013; Leca & Naccache, 2006). More precisely, Delbridge and Edwards (2013) suggest that action should not be postulated to result from structure such as from institutional logics meaning that the existence of a certain institution will cause certain action. Instead, researchers should first focus on analyzing the structural conditioning of institutional logics (or to contextualize the logic), the interplay of the logics at the level of actual and the empirical outcome of such interplay. This three-staged approach is based on a claim that action presupposes structure (such as speech presupposes language) but the causal power of the structure to cause certain action (or in realist terms an event) is conditioned by an actor's local contextualization, which may include personal characteristics such as reflexivity (Archer, 2010), agentic orientation (Emirbayer & Mische, 1998) or social skills (Fligstein, 1997).

In other words, by observing the domain of the empirical, an institutional analyst should analytically separate structure and action when constructing an explanation behind an empirical event of an actor producing action by inhabiting an institution occurring in the domain of the actual. This inhabited view (Hallett & Ventrasca, 2006) means that structure does not produce action, but action is conditioned by the contextual variables of different levels, societal

¹² In general morphogenesis refers to a process of shaping and is an analogy of a biological process that causes an organism to develop its shape.

(e.g., historical evolution of the culture) organizational (e.g., organizational norms and practices) and individual (e.g., individual reflexivity and social skills)¹³, and therefore forming an emergent (or situational) outcome potentially leading to change in the structure. Therefore, this analytically dualistic perspective allows agency and reflexivity of the actor by treating action as conditional, rather than sees action to be fully prescribed by the structure. In Figure 1, I have illustrated this analytical framework of agency and structure based on the critical realist line of thought (Sayer, 2000; Delbridge & Edwards, 2013). The figure uses Sayer's (2000) original terms, but I have added corresponding terms relevant to the theoretical background of this study in italics.

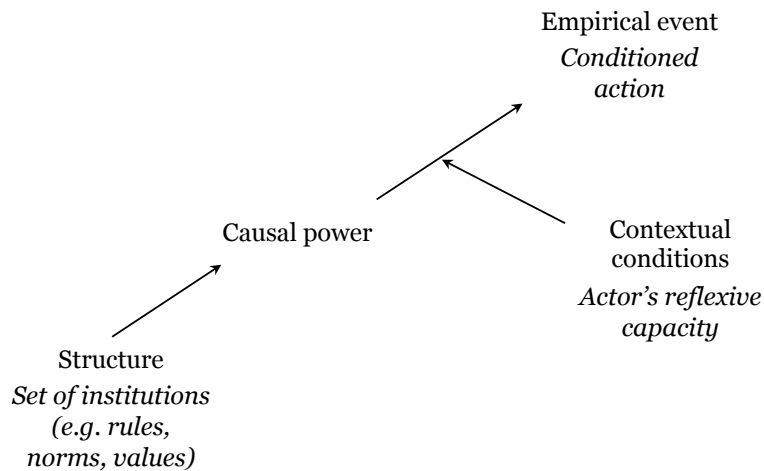


Figure 1. Analytical framework (adapted from Sayer, 2000, p. 15)

4.2 Synthesis approach

In general, for conducting empirical research under the critical realist philosophy of science, Sayer (2000) suggests an intensive research approach through which a researcher can address “how” types of research questions, such as, “How does a certain causal power process work in a particular case or small number of cases?” The intensive research approach utilizes qualitative methods, which can empirically inquire about different contextual conditions that may become to condition action. During my doctoral research, I applied such an intensive research approach resulting in the four published articles looking at the empirical problem of how multiple actors can jointly create value in three different cases and from multiple different theoretical perspectives. Such a research strategy can be labeled as theoretical triangulation or bricolage, which aims to look at complex empirical phenomena from various and even divergent angles (Boxenbaum & Rouleau, 2011). However, in order to come up with more integrated and concise contributions, I aimed to synthesize these findings by

¹³ Such view is analytically analogous to the nested system approach (e.g. Holm, 1995) discussed throughout the theoretical background section.

interpreting the empirical problem (of setting collaborative and value creating systems among multiple organizations) as a second-order collective action problem or how these organizations, constrained by existing social structure, can produce collective action to renew social structure and spur more collective action eventually leading to meeting common higher-level goals of joint value creation. This led to positing the following separate research question for this compiling part of my dissertation: How can actors solve the second-order collective action problem in order to enter joint value creation?

To address the research question, I aimed to interpret the findings and insights of each article from the collective action perspective. Then, I synthesized these findings by using them as conceptual building blocks to form a model explaining the development of collective action systems (i.e. a developmental process towards joint value creation). However, while acknowledging that such a model is based on combining theoretical claims of four separate articles, I further wanted to verify and refine the model by revisiting and decoding the three individual empirical cases. Such approach is called a dialogical model of case study research (Rule & John, 2015), which addresses the fact that case studies are rarely linear processes, proceeding from general to particular through deduction or from particular to general through induction. Instead, Rule and John (ibid.) argue that the theory and empirical research seem to interact dialogically through a recursive research process (i.e., moving back and forth between the empirical findings and theory) leaning on abductive reasoning (Mantere & Ketokivi, 2013) which allows, for example, the refinement of theoretical claims through multiple case study design. I have illustrated this overall synthesis process in Figure 2.

I want to underline that despite the comparable analysis across the cases, my goal is not to provide a universally generalized or law-like (positivist type of) model, but my aspiration is to identify so-called *demi-regularities* between the causal or generative mechanisms (Lawson, 1997) through abductive reasoning to give the best available explanation behind such mechanisms (Mantere & Ketokivi, 2013)¹⁴. The concept of demi-regularity suggests that despite viewing social systems as open systems, there may occur spontaneous conjunctions of events, meaning that a certain event might lead to another also in different regions of time and space (Lawson, 1997). This would in fact indicate that social systems might be partially closed when such conjunctive events occur (Kemp & Holmwood, 2003). Therefore, as an outcome of this analysis process I aim to identify cross-field structural elements (occurring across different social contexts or, in my terms, fields) that enable and constrain collective action as well as contextually conditioned causal mechanisms that lead to change in such structures and use these findings to construct a conceptual model of development of collective action systems.

¹⁴ In critical realist terms abductive reasoning or abduction is often labelled as retrodution (Danermark et al., 1997), which ultimately aims to form theoretical claims by explaining the reasons for causal mechanisms behind the empirical observations (i.e., events).

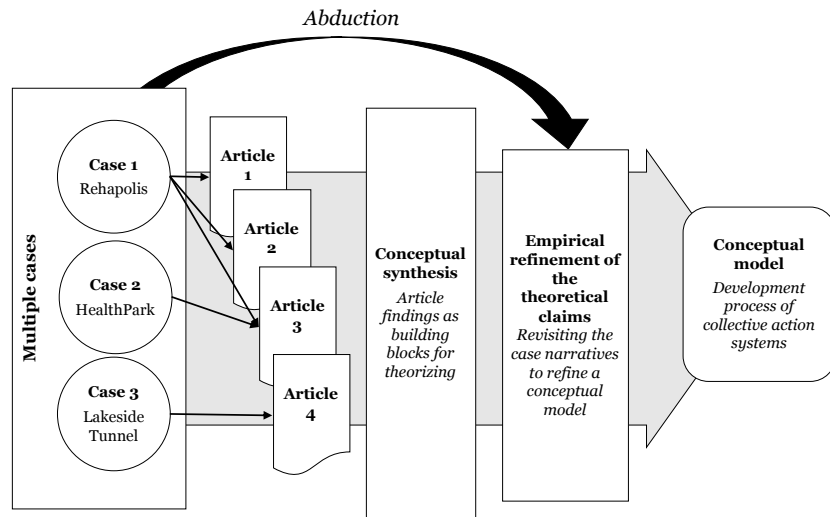


Figure 2. The process to synthesize the insights of the four articles

4.3 Empirical cases as collective action systems

As shown in Figure 2 and discussed in Section 2, the first two articles draw insights from the Rehapolis case, the third article from the Rehapolis and HealthPark cases and the fourth article from the Lakeside Tunnel Alliance case. In empirical terms, each case is a collection of multiple organizations, which engaged in a collaboration to form and pursue a shared goal of joint value creation. Each article uses different definitions for such an inter-organizational system (an inter-organizational network, a meta-organization, a project alliance, etc.), depending on the theoretical lens adopted in the article, but ultimately talks about the same phenomenon of collective action among multiple organizations. In this compiling part of my dissertation, I call these three cases *collective action systems*¹⁵ set to govern the efforts to solve a specific common problem, which resembles a common-pool resource scenario. In the following, I explain why each case can be approached from such collective action perspective and why it was indeed more effective and even necessary to set up the collective action system for their governance instead of rely on a purely contractual governance system.

In Rehapolis the actors aimed to set up a public health care system to improve disability health care services and legitimacy of the disability healthcare as well as people with disabilities. It was clear that the actual service provision as well

¹⁵ As described earlier, I use the term collective action system to describe a meso-level social order that serves shared interests beyond those of single organizations or individuals. In political science similar system set to govern common-pool resources is often defined as “common property system” (see eg.g. Agrawal, 2001). However, the idea of this dissertation is to combine ideas from neo-institutional theory and theory of collective action, I will use my own slightly more overarching definition here, which is more aligned with Fligstein’s concept of strategic action field and thus not limited only to governance of natural resources and public goods.

as improving legitimacy of disability health care as an important field of care required input from multiple private, public and non-governmental organizations which needed to negotiate the system-level goal as well as respective governance mechanisms of the system. Neither of the parties could have not been excluded from the negotiations table since that would have compromised the legitimacy of the system. In the other words, public sector having legal responsibility for organizing care did not have resources to do that alone but required private organizations as service providers. Private providers on the other hand could not sustain their business without public sector. Neither of the parties could have received legitimacy in the eyes of the disabled people without support from NGOs representing disabled people. Thus, provision of disability health care services can be seen as a common problem resembling a common-pool resource requiring governance through informal mechanisms such as joint goals and norms of a collective action system.

In similar vein, but to more limited extent HealthPark aiming to provide comprehensive health care services for elderly people could not have operated without input from multiple organizations. Furthermore, it was not clear how to contractually organize such pluralistic system mainly due to measurement issues in the “total health” of a patient. In the other words, due to difficulties to measure each provider’s exact contribution to the patient’s health, it was not possible to price one single comprehensive service and then distribute the economic value created among participants based on *ex ante* contracts or at least not without extremely high bargaining costs (see e.g. Libecap and Wiggins, 1984). Instead, each organization provided their services independently on a fee-for-service basis. However, to reach synergies and increase overall value created to a patient, the service offering as well as the whole HealthPark network was governed through informal mechanisms such as mutual trust and reciprocity socially pressurizing every organization to participate in promoting each other’s services and offer the high-quality customer experience to the shared pool of patients in order to contribute the overall attractiveness and legitimacy and thus value created by HealthPark as a whole. These informal mechanisms became important also because once an actor was granted a permission to join HealthPark it could enjoy its benefits (e.g. increased customer flow) making HealthPark to resemble a good with low-excludability. Therefore, social institutions forming pressure to collective action were essential to avoid free-riding and sustain value creation.

Finally, in the Lakeside Tunnel Alliance the complexity and uncertainty of the tunnel motivated the public buyers not to contract out specific parts (e.g. designing, contracting) of the project as would be done in typical contract-oriented procurement approaches (e.g. cost-plus or fixed price) often leading to partial optimization. Instead, they used alliance form of delivery in which decision-making rights as well as risks and rewards of the project as a whole were shared equally between the participants resembling a common-pool resource scenario. The complexity and inherent risks associated with the tunnel construction also created high levels of excludability of different organization whose expertise was crucial for successful project. For example, alliance form

was justified by the need integrating public buyer, designers and contractors and therefore it became difficult to “contract away” certain key parts of project delivery (e.g. tunnel design). Indeed, the alliance agreement signed by the project parties did not specify the property rights of each party or in the other words the contract did not clearly define responsibilities between the parties. Instead, the alliance members needed to form social institutions, such as organizational practices, common values and trust within the alliance to govern actions towards the common goal.

Table 4 summarizes the characteristics of each case including their empirical description, describing the so-called common problem scenario and system-level goal as well as defines the participated organizations and explains the mechanisms used to govern collective action within the resulted system. Thus, the three collective action systems described in the table can be seen as the outcomes of the developmental process, which we had mapped already in the four articles. To address the given research question of this compiling part, I hence aimed to map analytically generalized developmental process of the collective action systems (i.e. process to overcome the second-order collective action problem) through my synthesis method explained more in-depth in the following sub-section.

Table 4. The three cases as collective action systems

Case characteristics	Rehapolis	HealthPark	Lakeside Tunnel
Empirical description	Disability health care campus	Collocated health care network	Project alliance
Common problem scenario forming premises for a collective action system	Provision of disability health care services requiring input from diverse organizations which could not be excluded to maintain high-level of service and legitimacy	Provision of comprehensive health care service, which overall value could not be directly measured and contracted <i>ex ante</i> among participants	Provision of complex high way tunnel which required resources from multiple organizations making it difficult to exclude key organizations and motivated sharing decision-making and property rights due to the inherent uncertainty making <i>ex ante</i> contracting difficult
System-level goal	To legitimize people with disabilities and improve their health care services	To offer comprehensive private health care services to elderly people	To design and construct a complex highway tunnel under a busy city center
Participating actors	Set of diverse actors including private, public and non-governmental organizations <ul style="list-style-type: none"> In total: 18 organizations Health care and wellbeing services: 11 Medical research: 3 Other fields: 4 	Mostly private health care service providers positioned in different positions of health care value chain (e.g. imaging, surgery, rehabilitation, re-education) <ul style="list-style-type: none"> In total: 11 organizations 9 private companies 1 NGO A vocational school for students with special needs 	Alliance consisted of five organizations <ul style="list-style-type: none"> 2 public organizations (buyers) 3 private service providers: 2 engineering offices, a main contractor

Table 4 continued

Incentive mechanisms	<p>Informal</p> <ul style="list-style-type: none"> • High quality, accessible and modifiable spaces designed for health care organizations • Improved visibility in the field level • Close proximity of other actors 	<p>Informal</p> <ul style="list-style-type: none"> • High quality, accessible and modifiable spaces designed for health care organizations • Possibility to integrate service chains • Joint customer flows 	<p>Formal</p> <ul style="list-style-type: none"> • Alliance agreement and commercial model defining the compensation of private service providers • Monetary incentives based on jointly defined key results areas of schedule, safety, usability and public image <p>Informal</p> <ul style="list-style-type: none"> • Reputational gains because of project's high media visibility • Gaining the first-mover advantage to project alliancing
Governance mechanisms	<p>Formal</p> <ul style="list-style-type: none"> • A joint marketing board with regular meetings • Marketing fee defined in tenant contracts • Tenant contracts (governing only use of the physical space) <p>Informal</p> <ul style="list-style-type: none"> • Regular joint events in which every organization was expected to provide content • Trust because of co-location enabling everyday interactions • Shared identity • Strong individuals creating a collaborative spirit 	<p>Formal</p> <ul style="list-style-type: none"> • A joint developmental board with regular meetings • Tenant contracts (governing only use of space) • No formal contracts governing the joint-operations at the stage of empirical study, a proposition for that was made <p>Informal</p> <ul style="list-style-type: none"> • A jointly formed goal emphasizing collective but also individual benefits through increased customer flows • Regular joint events in which every organization was expected to provide content • Facilitation by powerful core members • Trust because of co-location enabling everyday interactions 	<p>Formal</p> <ul style="list-style-type: none"> • A formal contract defining the generic incentives and penalties and rules of behavior • A jointly negotiated commercial model and key result areas on which the compensation was based • Alliance leadership and management teams with representatives of each organization <p>Informal</p> <ul style="list-style-type: none"> • A shared goal and best for the project thinking • Co-location of actors into shared office • Dilution of organizational boundaries to form a shared identity • Trust accumulation through daily interaction • Strong facilitation by single actors to form a collaborative spirit
Sanction mechanisms	<ul style="list-style-type: none"> • A possibility to social exclusion (potentially weak mechanism since some of the actors were already more peripheral) • Physical exclusion only because of tenant contract violation • Loss of reputation especially for the core actors in disability health care 	<ul style="list-style-type: none"> • A stronger possibility to social exclusion since the goal was to provide comprehensive health care service • Physical exclusion only because of a tenant contract violation • Loss of reputation 	<p>Formal</p> <ul style="list-style-type: none"> • Penalties for poor performance to be shared among the whole alliance • E.g., loss of profit margin for private service providers, extra costs for public buyers <p>Informal</p> <ul style="list-style-type: none"> • Loss of reputation • Bad publicity for the project • Risk of social opposition

4.4 Synthesis method

We originally collected rich qualitative data the three cases primarily through interviews and non-participant observation. For data analysis, we constructed chronological timelines of events in order to understand the development of each inter-organizational system. Therefore, despite differences in the used theoretical lenses among the four articles, our analysis approach across the articles can be seen to follow critical realist line of study (i.e. focus on empirical events). More particularly, the used analysis method resembles a process study approach in general and narrative strategy in particular, through which we constructed a rich story about each case (Langley, 1999). The process study approach is suitable when a researcher studies temporal change and aims to make sense of a complex series of temporally interdependent events, since it allows the production of narrative of emergent actions by which collective endeavors and change unfold (Van de Ven & Poole, 2005).

The rich case narratives formed a good basis for the synthesis efforts of this compiling part which I approached through a dialogical model of case study research (Rule & John, 2015). First, I synthesized the findings and contributions of each individual article and used them as a building blocks for a conceptual model¹⁶. Second, I aimed to refine and better ground the initial model by revisiting the individual case narratives. I used the narratives for visual mapping (Langley, 1999) to better visualize the change process of each case. Third and finally, I engaged in cross-case analysis (Eisenhardt, 1989) and used the findings to refine the conceptual model.

More specifically, I constructed three visual process descriptions by using the rich case narratives created for the individual papers. I created these process descriptions by using the initial first level codes of the most prominent events and actions using our informants' own language. The process descriptions followed the principles of analytical dualism (Delbridge & Edwards, 2014), which means that when constructing the process description, I separated the events (action), the actors and the structure into three separate entities according to my analytical framework (Figure 1). Then, I compared these process descriptions with one another and with my emerging conceptual model, which allowed me to work iteratively with the model so that it merged my initial theorizing efforts of the individual articles as well as the empirical analysis. The individual process descriptions are available in Appendix 1. In Section 5, I will synthesize the insights of the four articles into theoretical claims about the development of collective action systems. In Section 6, I will then show explain the conceptual model based on these findings and the subsequent empirical validation.

¹⁶ E.g., the theoretical lens of network dimensions used in Article 1 links helped identify certain contextual factors. This made me induce that certain structural, relational and cognitive attributes are necessary to set up any collective action system. Thus, this finding became an important building block of the conceptual model. However, I wanted to revise the empirical cases through which I was able to learn that similar patterns occurred also in the other cases, making theorizing more justified.

5. Synthesis of Original Articles

In this section, I will present the synthesis of the four articles. First, I will review each four articles and their contributions from the collective action perspective developed in this compiling part. I will not repeat the case narratives or the findings, which are presented and discussed in Section 2. Neither, I will re-justify why the three cases can be seen as collective action systems, a distinct form of organizing relying on informal rather than contractual governance since this discussion is provided in Section 4.3. Instead, I will summarize my interpretation of how each article manifests itself from the collective action perspective or which kind of concepts are necessary to understand the formation of collective action systems as special cases for value creation among multiple organizations. After this, I summarize these points in the last subsection 5.5, in which I will present specific theoretical claims about the developmental process of collective action systems through which the actors can overcome the second-order collective action problem. I will then use these theoretical insights to construct a conceptual model discussed in Section 6.

5.1 A1: Contributions from collective action perspective

The first article focused on analyzing the key events, reasons, and actions why and how the multiple diverse health care organizations decided to shake the status quo and start to implement the Rehapolis project. We framed the study from the project management perspective, since it gave us a valuable concept of the front-end of a project, which basically is the crucial phase including the series of actions required for “the acceptance of the project” (Morris, 2013). If we treat a project as a temporary organization or a social structure of its own right (Lundin & Söderholm, 1995), something must actually precede and succeed that structure. Thus, to better understand the preceding social structure, leading to the initiation of the project, we decided to utilize literature on inter/intra-organizational networks, which helped us to conceptualize the structure from which the Rehapolis project originated and offered the three network dimensions of structural, relational and cognitive (Tsai & Ghoshal, 1998).

From the collective action perspective, these dimensions are an important contextual variable to understand potential conditions for institutional change. As discussed by Fligstein and McAdam (2012), networks themselves as

structural entities are not complete fields but can provide a tool to analyze fields. Thus, we engaged in analyzing the actions taken by participating actors aiming to shape these dimensions and thus push change in the social structures. This action focused approach offered us a more profound way not just to conceptualize the field (the social structure) but actually interpret triggers for the change (i.e., contextual factors conditioning action). Such approach is also in line with the critical realist lens, which in this case meant that we were able to analyze in retrospect the events and actions that had taken place and to interpret the potential mechanisms leading to such events (i.e., contextual factors conditioning action and producing change).

Our empirical analysis revealed that the CEO of the Prosthesis Foundation and the COO of the Disabled Association were able to alter the structural, relational and cognitive dimensions of the network, making the structure more adaptive to the change towards collective action to implement the Rehapolis project. This complements the earlier work on institutional change (e.g., Greenwood & Suddaby, 2006; Battilana, 2006) by indicating that a central and strong social position may help in initiating change. The CEO of the Prosthesis Foundation occupied such a central position within the network of health care actors, but this was by no means a matter of chance, but actually the result of deliberate actions by the CEO to form the advisory board linking all the necessary stakeholders together. Through these deliberate actions, the network became centralized around the Prosthesis Foundation and it was much easier to push the idea about Rehapolis forward.

In a similar vein, such deliberate actions to organize quarterly meetings and engagement into social interaction with other actors helped in building the mutual trust between the individuals, which we once again identified as a necessary action to shape structural and relational dimensions more aligned towards the initiation of the change project. I argue that the capability to implement such maneuvers stems from the Prosthesis Foundation's CEO's earlier experience from a different field of manufacturing in which such inter-organizational collaboration was more prevalent. The reflective capacity to think alternatively can therefore derive from boundary spanning activities, which is in line with earlier writings on institutional change through boundary work (Zietsma & Lawrence, 2010).

An important point to make here is that the changes in these network dimensions can be described as accumulating social capital (Tsai & Ghoshal, 1998). Social capital is an individual level attribute and describes how well that certain individual is linked with the surrounding social context and shares similar cognitive schemas. Social capital (such as reflective capacity) is also a variable, meaning that one person or organization might have higher capital than another. While being a variable, it means that social capital is not a static or inborn attribute.

Therefore, to simply conclude that changes in social structures towards collective action are triggered by the actors with high social capital is not just unsurprising but slightly misleading. Instead, the actual and more interesting

implication of the first article is that social capital, deriving from the social structure, i.e., the inter-organizational network, can be purposefully altered and while doing that it is not just the individual attribute that changes (e.g., one actor moves towards the center of the network), but the whole structure itself that starts to change. Therefore, we conclude by deliberate actions the individuals with strong social position and reflective capacity (being socialized in different contexts) may shape the prevailing social structure to become more aligned towards change. Based on our findings, such a change-enabling state involves multiple organizations having high mutual trust and sharing a common vocabulary and cognitive schemas. In the Rehapolis case, this was combined with the fact that development of disability health care field as a whole required input from all the key actors who could not be excluded from the negotiations tables to really reach the goals set to Rehapolis. This can be seen to motivate the architects to truly aim to build consensus instead of just settling for a solution meeting their self-interested goals. Under such circumstances and through more deliberate actions of facilitation by the socially skilled, the actors can be mobilized around a common issue and engage in collective action to solve the issue.

5.2 A2: Contributions from collective action perspective

The second article discusses the importance of a shared vision as a driver towards shared value creation. Overall, I interpret formation of a shared vision as a collective action problem, meaning that how firms in dialogue with other organizations of the society (e.g., public and non-governmental organizations) can come up with and govern a joint agenda creating benefits to all participants (i.e., go beyond self-interested gains). Therefore, the interesting contribution of this study lies in investigating how a joint vision of Rehapolis was initially formed and put into practice. This is described in the empirically grounded process model of the creation and implementation of the vision of shared value creation.

The process model adopts a three-level view adopted from the work of Balogun et al. (2014) describing strategic actions as occurring in three realms of institutional, organizational and socio-material. Basically, by using this conceptualization, we aimed to show how actions need to be taken to disrupt different layers of nested social systems. Despite the layered nature of the conceptual model presented in the article, I want to emphasize that we did not mean the three realms to be hierarchical. Instead when interpreted from the collective action perspective, I would describe them as nested arenas of action (Holm, 1995) which is also in line with Fligstein and McAdams's theory of fields (2012). This means that each of the three realms provide an arena for action but also that an action can simultaneously affect multiple realms.

Despite the difference in the conceptualization of levels and phases, the key conceptual item here is the shared vision about the improved life of people with disabilities. This vision was crafted into a concrete idea to build a shared campus by the Prosthesis Foundation's inter-organizational advisory board and then

developed into a concrete project plan by the Prosthesis Foundation's CEO and the Disabled Association's COO. Thus, the concrete plan to build the campus can be interpreted not just as a goal of a construction project but to symbolically represent the higher-level vision of the improved life of the people with disabilities. On the one hand, such a symbolic representation created more widespread legitimacy to the project mobilizing diverse actors (public, private and non-governmental) into collective action to build the campus and more importantly re-shape the way disability health care services were provided in Northern Ostrobothnia. On the other hand, the actual campus building project resulted a socio-material artefact, the Rehapolis campus, which allowed the geographically dispersed actors to actually engage in collective action through day-to-day interaction, opening creative avenues for new forms of collaboration such as integrating their service operations, implementation of joint research projects and in general improving the visibility and status of disability health care.

An important question remains: how one can come up with such a powerful vision and actually mobilize others. First of all, the placing the institutional realm as the first arena of action, our process model highlights that the content of the vision needs to represent higher societal level needs in order to become serve common purpose. By borrowing Fligstein's and McAdam's (2012) terms, the vision needs to represent the collective needs of a major portion of actors embedded in the field. However, laying out such a powerful vision was not enough to push the change forward, but the vision needed to be brought to a more concrete level. At that time, the majority of the disability health care organizations were operating in poor premises. This is why the discussion probably turned towards building the actual campus, the purpose of which could then be twofold: to improve the services and thus the life of people with disabilities but also to solve the facility problem.

Once again strategic actions by the socially skilled and well positioned individuals, the CEO and the COO, were required to first increase the legitimacy of the project by mobilizing more political support from the city council and directly engaging the mayor in the project by sending a personal letter signed by influential and high-status individuals in the health care sector. These actions occurred thus more on organizational levels within and between different organizations when new actors (e.g., funders, tenants, and supporters) were recruited into the Rehapolis project.

The actions in the socio-material realm were also important because the daily operations in the first campus building showed that the municipal assistive device unit continued to fulfil its legal duties and organize open competitive bidding for the services it acquired. This helped the hospital district's managers to become positively inclined towards the project after realizing its symbolic and practical value as well as great location just next to the university hospital. This emphasizes the importance of constructing socio-material artefacts when pursuing social change. When the ambiguous vision becomes symbolically represented through a concrete project goal (e.g., construction of the campus),

it can create meaning to collective actions. The concrete and material goal also enabled attaining necessary resources for the change, when the Prosthesis Foundation CEO gained support from the top management of the Orton Foundation. The Orton Foundation had little if no interest to actually improve the local disability field but was willing to receive the profits from potential tenancy contracts.

The importance of the campus as a socio-material artefact does not lie only in its appearance as an effective mean to integrate the efforts of many into concrete task-specific actions to construct the campus, but in its power to re-shape the localized social structure that materialized after the campus was finished. The campus shook the mundane pattern of activities increasing the collaboration between the organizations when the representatives of multiple diverse organizations were actually forced to meet one another every day.

The final important finding in this paper was the transformation from what might be called disruption to stabilization or, as in our case, from the temporary campus project to permanent operation of the new health care system. It would be too naïve to expect that just changing the physical environment and co-locating actors would lead to long term changes in the social structures such as the ways the different health care organizations integrate their service offerings. Instead, in the Rehapolis case, the CEO of the Prosthesis Foundation and the COO of the Disabled Association wanted to ensure that the collaboration between the organizations would continue and nominated Disabled Association's COO as a Rehapolis director, whose key job was to actually continue organizing joint meetings with the different campus organizations and facilitate the interaction through which the actors started to shape the localized governance structure with certain rules and responsibilities.

5.3 A3: Contributions from collective action perspective

In the third article, we began to converge the theme of collective action, which can be seen already from the title of the article. It is actually thanks to this article that the overall theme of this compiling part started to focus explicitly on collective action, which I saw as a vivid theoretical discourse helping to explain the empirical phenomenon of how multiple organizations as well as individuals can create value together.

The third article contributes to the collective action perspective by delineating the important antecedents for the collective formation of a system-level goal. In the original paper, these were introduced through the set of propositions and the resulting conceptual model. The model became then highly influential for this compiling part and formed a basis for the conceptual model presented in Section 6.

The article embarks from the very fundamental idea in collective action theory that transactional or contractual relationships may not always be the most efficient way to organize and govern inter-organizational value creation. We argue that this is especially the case when multiple organizations aim to engage

into innovative forms of value creation (i.e. new value creation) by solving potentially ill-defined or highly ambiguous problems, which makes bargaining over *ex ante* contracts (i.e. who does what and how it should be compensated) impossible or at least highly burdensome and costly. Instead of setting up contractual arrangements, the actors should engage into forming a clear system-level goal and set up more informal means to govern collective actions.

The system-level goal is an important concept since it can be seen as the outcome of the joint framing process giving the direction and reasons for the collective actions. In the cases of Rehapolis and HealthPark, the system-level goal included the abstract but adherable vision (to improve the quality of life of disable people/to offer comprehensive health care services) but also the more concrete goal (to build the Rehapolis campus/to create a shared service). When successful, the system-level goal encourages the actors to invest their resources in the collective actions, which then creates value on the network-level, which can be seen as net benefits to all participating actors (e.g., increased visibility and legitimacy of disability health care field in Rehapolis or increased customer flows in HealthPark).

The important concept related to the system-level goal is a *network architect* (e.g., Orton's CEO) acting as a mobilizer of other organizations and facilitator of the joint framing process. Furthermore, the domain similarity or the extent to which the participants share similar institutional background (e.g., organizational goals, structures or cognitive schemas) plays a moderator's role between the collective goal formation through negotiations and the system-level goal. As discussed in the paper, the domain similarity possesses a curvilinear relationship. Thus, we argue that decreasing domain similarity led to diminishing of the collective action in the later stages of Rehapolis, when the architects allowed more heterogenous actors to join.

Another significant moderator for the decrease in collective actions and community-like feeling within Rehapolis was a rather simple one: the retirement of the Disabled Association's COO and the Prosthesis Foundation's CEO. The absence of these founding fathers led the whole community into a void, in which no visionary leadership existed to facilitate interaction. Some tried, such as the CEO of one physiotherapy clinic as well as the new COO of Disabled Association, but they were not able to gain similar momentum.

Nevertheless, the most important contribution of the article was that no collective action system is formed spontaneously but requires a concrete and meaningfully crafted mandate for its existence, what we call a system-level goal behind which the wide range of actors are mobilized. Formation of a system-level goal is then an interactive and dialectic process among potential members of the system but highly facilitated by the initial visionaries, the network architects or mobilizers. However, despite being a deliberately constructed social order, a collective action system, once formed, does not continue to exist by itself, but someone needs to continuously re-frame the social mandate to keep the collective action alive.

5.4 A4: Contributions from collective action perspective

In the fourth article, we provided an in-depth case narrative describing how a group of elite actors introduced a new collaborative form of organizing, project alliancing, as a response to institutional complexity and how these pre-project events led to the formation of the Lakeside Tunnel Alliance to design and construct a technically complex and politically complicated highway tunnel. We argue that as an outcome of the series of events, the alliance organization was capable of combining rationales of the diverse and conflicting institutional logics into their values and practices through a process we name as temporary hybridization.

The premises behind the initiation of such a radical change process towards collective action was the institutional void created by the plural logics, which on the one hand started to perplex the organizing but on the other hand motivated the NTA, as a resourceful public organization, to start looking for alternative ways of organizing. When the legitimacy for the project alliancing was created and the model was put in action, the members of Lakeside Tunnel Alliance were able to negotiate the alliance agreement and the commercial model, defining the incentive and governance systems, combined effectively the logics of the bureaucratic state and the corporate market lowering the barriers of collective action among diverse organizations. However, the alliance agreement was not a contract in traditional terms but instead it left the roles and responsibilities of each party rather open and instead decision-making rights were equally shared among the participating organizations. More importantly, the blended organizational structure and routine interaction helped mitigate the tensions between different professional logics and accumulate trust between diverse alliance members eventually governing collective action within the alliance organization that worked towards the best of the project, not towards the best of each individual or their home organizations.

Thus, this article effectively illustrates that the barriers of collective action can derive from field-level social structures such as institutional logics, but that they also can be tackled by forming a localized governance structure such as a project alliance. In the paper we delineate such a process as a temporary hybridization through which the Lakeside Tunnel Alliance was capable of becoming a more collaborative entity. We stress the importance of actions taken by the NTA, as a permanent organization, already prior to the Lakeside Tunnel project to at least partially publicize and legitimize the alliance form as well as create the vision about changing the complete industry. Nevertheless, a process of negotiations was required to form the negotiated order of project alliancing or the hybrid organization combining multiple logics. Therefore, these findings strengthen the overall perception that collective action systems can be formed around a higher-level vision (e.g., to increase performance of public infrastructure projects) which is formed and legitimized by involving multiple parties and a long process of facilitated negotiations leading to also formulate a concrete system-level goal (e.g., to build a highway tunnel), which symbolically represents the higher-level vision. This stresses the importance of project-based

and task-specific form actions as a means to produce and sustain collective action (an argument pointed out also by Raynard, 2016).

5.5 Conceptual synthesis of the four articles

The four articles approached the empirical problem of how multiple actors, with diverging interests, can create value together from multiple theoretical points of departures. For the synthesizing purposes, I have approached the theoretical claims and contributions of the articles from the collective action perspective and summarized the key take-aways from each article in Table 5. These key takeaways are then formulated into the list of theoretical claims about development of collective action systems, which I have used as conceptual building blocks for the conceptual model introduced and explained in Section 6. To better illustrate the connection between the article and the model, I have used italics to highlight each important concept, which is then used in the resulting conceptual mode.

To summarize the rationale of my synthesis: One can see that each article presented rather similar empirical narrative of actor-driven or agentic change towards fulfilling higher- (or system-) level goals. I interpret this as a change process towards collective action, in which the collective action acts as a means and an end. Each empirical narrative centered around how a group of key actors (named *mobilizers*) who started to mobilize other actors and push change in their local business environment. The pattern of change was rather evident: it typically started from clashes between different demands set to the organizations (i.e., *institutional pluralism*) creating *institutional void* when actors did not know what legitimate behavior was (concepts drawn from Article 4 but also indirectly discussed in Article 2). The *mobilization* itself seemed to consist of deliberate actions taken by socially skilled and well-positioned mobilizers to frame an initial vision and agenda for change (as discussed in Articles 2, 3, and 4) and deliberate altering the structural, relational and cognitive dimensions of the existing inter-organizational structure (as discussed in Article 1).

The mobilization efforts then seem to lead to the emergence of the new system through *negotiations* among multiple stakeholders (as discussed in Articles 2, 3, and 4) and formulating a *system-level* goal (concept drawn from Article 3). The system-level goal is two-dimensional because it defines the higher-level vision but also describes more concrete and practical goals. The latter becomes to guide *task-specific collective action* through which the diverse actors can focus on constructing something concrete to overcome the ambiguity related to change (as discussed in Article 2 and 4). This task-specific collective action hence helps overcoming the second-order collective action problem and pave the way to the rise of new *localized governance structure*, spurring *collective action* to continue meeting the higher-level vision and eventually leading to *net benefits* to participating actors keeping the system alive (as discussed in Article 3 and 4). Finally, there seems to exist constant potential for reshaping of the

system through *disruption* initiated by exogenous or endogenous shocks (as discussed in Article 3).

In Section 6, I will thoroughly explain the conceptual model and its stages, explain how each stage instantiated itself in the three empirical cases, and discuss the findings in the light of current literature.

Table 5. The conceptual synthesis of the four original articles

	Key contributions from collective action perspective	Theoretical claims about the developmental process of a collective action system
Article 1	<ul style="list-style-type: none"> Understanding that inter-organizational networks are collective action systems, which are formed around a common issue but need to be advanced through deliberate management actions. The actor-driven actions affect key parameters of structural (i.e., density of ties), relational (i.e., strength of ties) and cognitive dimensions (i.e., similarity of mindsets). 	<ul style="list-style-type: none"> <i>Common problem</i> as a premise and motivation for change requiring <i>common solution</i> to be shaped among participants Change towards common solution may be initiated by shaping three network dimensions: <i>structural</i>, <i>relational</i>, and <i>cognitive</i> Actor-driven <i>mobilization</i> as a key activity Social position of the <i>mobilizers</i> in terms of network dimensions: i.e., central structural position, strong relations, and similar cognitive patterns as a key change enabling contextual condition
Article 2	<ul style="list-style-type: none"> Creation of collective benefits/value requires institutional change in the prevailing social structures on multiple levels (institutional (i.e., field), organizational, socio-material (i.e., mundane practices)). 	<ul style="list-style-type: none"> Three levels of change: institutional, organizational, socio-material Change is initiated by the perceived problems on institutional (field)-level (i.e., <i>institutional void</i>) Change emerges on organizational level in <i>negotiations</i> across organizations Change is realized through <i>task-specific collective action</i>, changing the socio-material context and creating new <i>localized governance structure</i>
Article 3	<ul style="list-style-type: none"> Inter-organizational value creation scenario to solve an ill-defined problem can be defined as collective action problem in which actors need to form a collective frame to pursue system/network-level value/outcomes Under such conditions, transactional and contractual relationships become less efficient mean to govern value creation paving way to more informal mechanisms such as shared system-level goals and norms Collective framing produces system-level goal setting as the direction to collective action 	<ul style="list-style-type: none"> <i>System-level goal</i> forms the ultimate purpose for the collective action and possesses task-focused dimension and symbolic representation of higher-level visions Joint framing efforts as process of <i>negotiations</i> as antecedent of the system-level goal Institutional (or domain) similarity as moderating factor in goal formation <i>Collective action</i> as actor's resource investments into achievement of the system-level goal <i>Net benefits</i> as outcome and system strengthening factor <i>Disruption</i> through potential exogenous and endogenous shocks
Article 4	<ul style="list-style-type: none"> Collective action can be hindered by institutional tensions among multiple actors participating in the system Institutional tensions can be mitigated through negotiation and goal setting processes among multiple participants Formal incentive systems and rules as well as informal norms and practices can help spur collective action within an inter-organizational system 	<ul style="list-style-type: none"> Multiple institutional logics leading <i>institutional pluralism</i> creating <i>institutional void</i> constraining collective action <i>Negotiations</i>, facilitated by <i>mobilizers</i> who have linkage to other fields, as a means to mitigate institutional tensions <i>Task-specific collective action</i> to change the mundane organizing towards increased collaboration and collective action

6. Discussion of Conceptual Model

In this section, I will summarize my synthesis efforts into a conceptual model in Figure 3 describing a developmental process of a collective action system. The model results from combining the theoretical claims of the four articles, discussed in Section 5, with the processual descriptions of the empirical case narratives (available in Appendix 1). I will profoundly explain each step of the model and how it instantiates itself in the three empirical cases.

To improve clarity, I have used different shapes to describe different elements according to the general analytical framework (see Figure 1). A rectangle depicts different forms of actions. An oval illustrates social structures ranging from higher-level institutional structures to more localized structures such as the system-level goal as well as informal governance mechanisms (e.g. norms) of a collective action system. A rounded rectangle represents contextual conditions such as the characteristics of mobilizers and other actors (e.g., institutional similarity). The arrows show the direction of relationships among the nodes as well as potential moderating relationships (an arrow pointing to an arrow). Unless otherwise indicated, the relationships are assumed to be positive. Some boxes may act as moderators (e.g., mobilizers, institutional similarity, disruption). Finally, with dashed rectangles I have sectioned the above-described steps into five distinctive stages each. These stages form the structure for the following sub-sections (see sub-section headers) and the multiple steps inside these stages are shown in *italics* in the text to better bind the text to the figure.

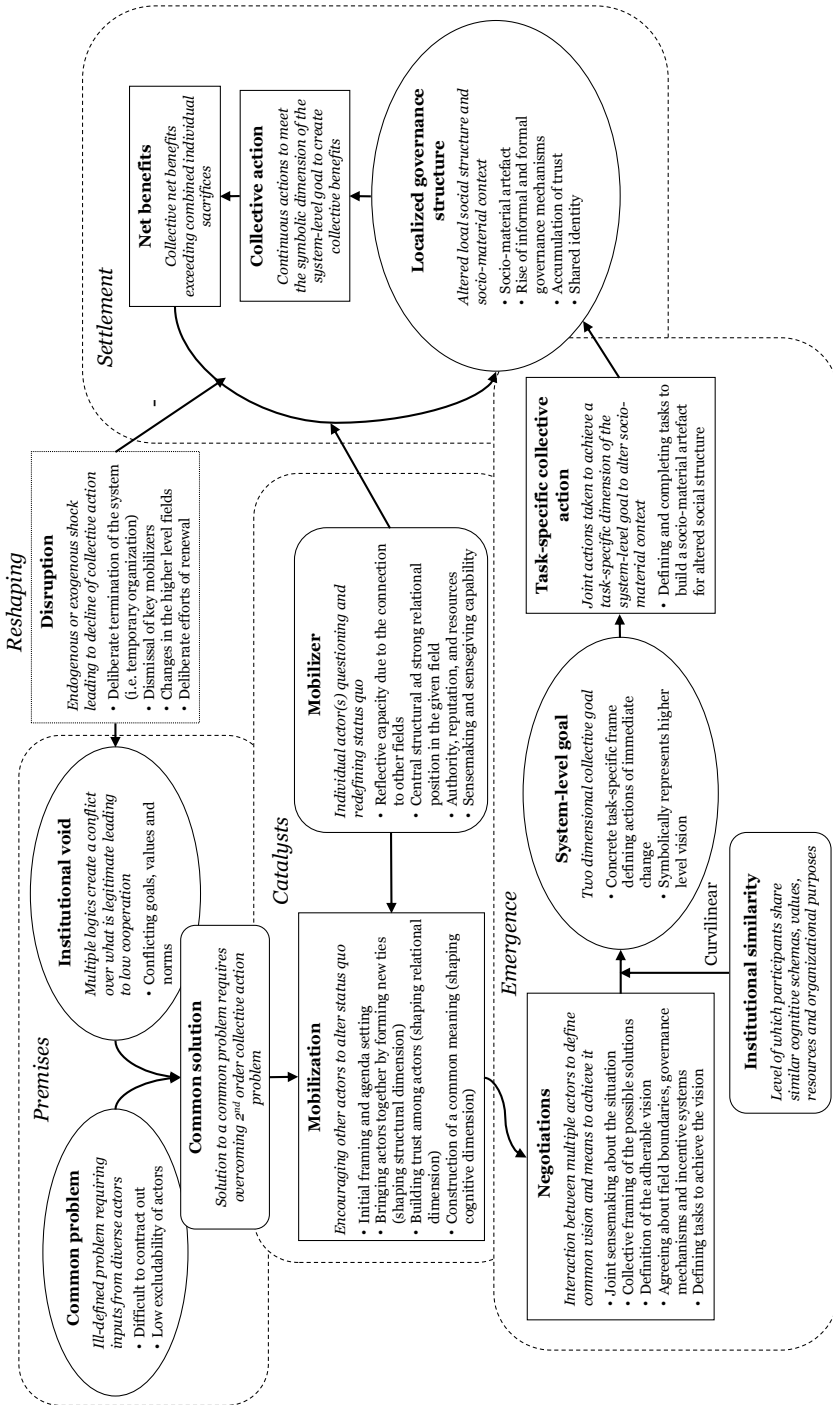


Figure 3. The developmental process of a collective action system

6.1 Stage 1: Premises of change

In all three cases, the change towards an emergence of a collective action system can be traced back to the structure of the higher-level field. Based on our findings, I argue that the pluralistic nature of these fields, or the presence of multiple institutional logics, started to complicate the organizing of health care services in the cases Rehapolis and HealthPark and two as well as public infrastructure projects in the case Lakeside Tunnel Alliance. These fields, as any fields and the society as large, are *de facto* inter-institutional systems (Friedland & Alford, 1991) having diverse prescriptions of legitimate action, which means that such institutional pluralism more or less a standard condition of all social life. However, the important question is: will such pluralism start to hinder organizational action or not? Or, in other words, do organizations face institutional complexity (Greenwood et al., 2011)?

I argue that in all three cases the pluralistic structure created an *institutional void*, the first premise of the model, which started to complicate organizing and create rather practical problems. Mapping out the exact timing of when such a void emerged or how it emerged was not possible, or even feasible, in this thesis but there exist clear clues about such antecedents in all of the cases. I have summarized some of the key indicators in Table 6. For example, in the Rehapolis case, the local disability field of Northern-Ostrobothnia had for some time suffered from poorly integrated services, unsuitable premises and lack of trust between private and public health care operators. These two sets of diverse actors shared rather divergent norms and values or, in other words, contrasting logics of bureaucracy and market, which had led to non-existing dialogue between the parties. Furthermore, until the early 2000s, a persistent belief existed that the public sector should independently offer health care services. In the shift of the millennium, a so-called purchaser-provider split model (see, e.g., Tynkkynen et al., 2013), allowing a better entrance of private service providers to the public health care service market, arrived in Finland from other European countries and started to form room for increased cross-sectoral collaboration. However, until the time of our data collection only a few municipalities have actually piloted such an approach, Rehapolis actually being among the first.

The two other cases can be positioned in similar institutionally complex settings. The analysis introduced in Article 3 shows that the Orton Foundation had faced problems for many years because of the national health care reform imposing changes in health care legislation in the early 1990s stripping it from its special status as a foundation-based hospital. Despite its impressive history, good reputation as a national leader in orthopedics and rehabilitation of musculoskeletal diseases, and strong research investments, it was struggling in competition against other private hospitals. In other words, the changes in the institutional environment had created an organizational identity problem when Orton did not qualify as a public organization but could not fully grasp the dynamic approach of a private hospitals. Furthermore, the impressive legacy and historical value of its post-war hospital site undergoing a full renovation under the supervision of the National Board of Antiquities had led the hospital

financially into a rather dire situation, willing to seek alternative forms of organizing.

Finally, as discussed in Article 4, the Finnish construction industry had for years suffered from poor productivity and quality of construction. Industry reports and some of the interviewed key actors blamed lack of collaboration and trust caused by constant juxtaposition between different parties, predominantly between public buyers and private service providers as well as different professional groups. Furthermore, public infrastructure and construction projects involved a great number of stakeholders imposing diverse demands. Thus, the problems in the past projects were arguably caused by the institutionally complex environment creating goal conflicts and tensions in project-based organizing. This motivated the NTA's managers and other actors to start searching for alternative project delivery forms.

In addition, in all cases the existing legal structure (i.e., Public Procurement Act) can be seen to hinder collaboration between public and private organizations. The law did not just create coercive pressure to avoid collaborating but arguably preserved the existing beliefs and juxtaposition between diverse parties. This clearly created an institutional barrier to collective action and potentially postpone and completely prevent collaboration. These findings about the premises of the change show that institutional change is not always triggered by jolts or exogenous shocks but can actually stem from constant conflicts on a very mundane level, creating rather practical problems, which certain actors begin to solve and simultaneously initiate institutional change (as argued more recently by Micelotta et al., 2017, by their focus on micro-practices).

Another important premise stems from the problem at the hand, which in all cases could be described as a *common problem*. Indeed, it could be seen that institutional void at least partially created or at least heightened this problem but it is important to note that the problem needed to be perceived as common meaning that it could not be solved by actions of single organization alone. As explained in Section 4.3, each case resembles a common-pool resource scenario. In other words, in none of the cases, one organization could not alone set up a hierarchy or contractual arrangement to solve the issue. Instead, the actors had to share the property rights over the solution and govern the system through more informal institutions. This stems from the fact that in all of the cases the problems were inherently complex and ambiguous requiring input from multiple actors leading high (potentially infinite) bargaining costs for a contractual arrangement. For instance, setting up Rehapolis required expertise and support from public, private and non-governmental organizations. In HealthPark it was difficult to set clear monetary compensation for comprehensive health care service which could have formed a basis for contracts between participants. Instead, the actors preferred setting more informally governed system to reach synergies. Finally, Lakeside Tunnel Alliance was set to construct a complex tunnel requiring expertise from private and public organizations. In addition, the inherent uncertainty made it costly to contract

the project through standard fixed price model (meaning that potential contractors would have just priced the project sky high to carry the risks).

Together these premises, a pluralistic structure leading to an institutional void combined with (and partially contributing to) an ill-defined problem led the actors to a common-pool resource type of scenario in which the solution to a problem, was not a “one-person’s-job” and instead a *common solution* had to be found and requiring coordinated collective action between parties. The following sub-sections will then explain the factors which enabled overcoming the second-order collective action problem to set up a collective action system.

Table 6. The premises of change in the three cases

	Rehapolis	HealthPark	Lakeside tunnel
Institutional void	<ul style="list-style-type: none"> Disintegrated public and private health care operators Lack of collaboration and integration among disability health care organizations in Northern Ostrobothnia Juxtaposition between private and public organizations Poor premises, poor service quality 	<ul style="list-style-type: none"> National health care reform in 1990s stripped Orton Foundation’s privileged position Tough competition in private health care markets Obligation to preserve historic status leading to hospital renovation burdening the balance sheet 	<ul style="list-style-type: none"> The set of diverse actors and stakeholders participating in major infrastructure projects Problems in past projects because of constant goal conflicts, lack of trust and poor integration among diverse parties Multiple stakeholders imposing diverse demands to projects
Common problem	<ul style="list-style-type: none"> Poor and disintegrated health care services for disabled people Low level of visibility and legitimacy of disability health care One organization could not solve the problem alone but solution required input from public, private and non-governmental organizations 	<ul style="list-style-type: none"> Declining number of patient visits to Orton campus Pressure to provide more comprehensive health care service requiring inputs from multiple specialized health care organizations Difficult to price such service and contract its parts <i>ex ante</i> 	<ul style="list-style-type: none"> Construction of complex high-way tunnel which involved high risks and uncertainty Due to the uncertainty, difficult to divide and contract all tasks upfront Expertise from multiple diverse organizations (private and public) required to undertake the job

6.2 Stage 2: Catalysts of change

Interestingly, in all three cases the change towards the common solution was initiated by the actions of a few elite actors. However, these key actors were not sole change agents but more like orchestrators or architects of the change who started to seek and envision alternative ways of organizing to solve the institutional void. All of them seemed to be motivated by the somewhat complicated situations forming an ill-defined common problem partially caused by the existing institutional void. However, identification of problems and even planning solutions is not nearly enough to spark the change. The key characteristic of these individuals was that they were capable of mobilizing other actors to join and collectively push for the solution requiring changes in the *status quo*.

Therefore, I call these actors *mobilizers*¹⁷ engaging in the strategic action of *mobilization*. The action is really the focus here because mobilization, as an activity, does not occur in a vacuum or in the head of an enlightened one but requires active agenda setting and framing in interaction with other actors. However, characteristics of mobilizers play an important role as a contextual condition positively moderating or conditioning action. This means that in order to overcome the institutional inertia or the oppressive nature of the social structure (in our cases to solve the common problem) an actor needs to possess certain characteristics permitting them agentic capacity to overcome the paradox of embedded agency.

Fligstein and McAdam (2012) label such capacity to derive from social skills or capability to formulate collective purpose to which others can relate. Our findings indicate similar pattern since all mobilizers were able to form an initial vision into which others could join. However, we also found that these actors needed to occupy a strong relational and a central structural position granting them legitimacy and sufficient power and resources to initiate the change¹⁸. This is partially controversial to an institutive idea that change is initiated from a peripheral position or by potential challengers who are less institutionalized to the current structure and hence potentially acknowledgeable of alternative ways of organizing (Fligstein & McAdam, 2012; Leblebici et al., 1991). Interestingly, the identified mobilizers partially met also this condition since on the individual level most of them had either a background in a different field (e.g., Prosthesis Foundation's CEO and Orton's CEOs both were recruited from different industries), a social position between fields (e.g., the COO of the Disabled Association being an amputee, Paralympian and politician), or active temporary linkage to other fields (e.g., the NTA's managers' and consultants' educational visits and connections to Australia). Therefore, by combining these individual characteristics such as high personal charisma, boundary spanning activities (see e.g. Zietsma & Lawrence, 2010) and experiences combined with the organizational resources (i.e. central and strong relational position) gave the mobilizers reflective capacity to think alternatively but also leverage to mobilize others.

Table 7 summarizes the characteristics of the mobilizers in each of the cases as well as lists key mobilizing efforts. The actual mobilization efforts are not trivial either but consist of rightly timed agenda setting and framing efforts to first build the diagnostic, prognostic and motivational frames (Benford & Snow, 2000). In other words, the mobilizers should not dictate the goals but facilitate their formation among different actors. Through such joint effort there seems to be a higher chance that the resulting goal is perceived as a collective one. The key finding here derives from insights of Article 1, which shows that deliberate manipulation of the key network dimensions to increase social capital are

¹⁷ In Article 3, we use the term "network architects," which is nearly a synonym for a term used here. However, the term "mobilizer" gives a slightly wider meaning, allowing a notion of mobilization towards wider social change than designing a network. As argued above, mobilization thus shifts the emphasis more towards action.

¹⁸ As argued in Article 1 by using three network dimensions.

pivotal prerequisites for successful framing. The framing itself can be seen as attempts to affect cognitive dimension by constructing a common meaning about the situation. However, other mobilization activities include shaping the structural dimension by bridging multiple actors and shaping the relational dimension, by building trust among them through facilitating long-term interaction.

In Rehapolis, the Prosthesis Foundation's CEO mobilized other by forming the advisory board (to shape the structural dimension) and by facilitating interaction within it (to shape the relational dimension). In the HealthPark case, the newly appointed CEO of Orton hired a management consultant with whom they laid an initial idea about HealthPark but required to raise the interest among other organizations to really push the idea forward. In a similar vein, the idea to adopt project alliancing in the Finnish infrastructure and construction industry was coined jointly by the NTA's managers and a Finnish consultant on their conference trip, which can be seen as a highly trustful environment. These individuals then organized series of workshops and seminars in Finland to bring together multiple organizations to discuss different problems in the construction industry and jointly framed project alliancing as a solution to mobilize sufficient support to start implementing projects through alliancing.

The clear pattern in all of these efforts was to outline the initial idea in such a matter that it could be adherable to a wide variety of actors (i.e. generate the higher-level vision) and then engage at least some of the actors in developing the idea into actual goals to initiate the change process (i.e. the task-specific goal). Thus, the mobilization efforts need to also aim to shape the cognitive dimension by creating a shared understanding of why it would be relevant to engage into collective.

Table 7. The catalysts of the change in the three cases

	Rehapolis	HealthPark	Lakeside tunnel
Mobilizers	Prosthesis Foundation's CEO <ul style="list-style-type: none"> • Background in manufacturing • Degree in engineering • Problem-solving attitude • Central position in the field Disabled Association's COO <ul style="list-style-type: none"> • An amputee • Multiple time Paralympic gold medalist • Municipal politician • Position between fields of politics, Paralympic sports, disability health care) • Strong personal networks 	Orton Foundation's CEO <ul style="list-style-type: none"> • Background in banking • Focus on financing and efficiency • Central position and resources to spark change Management consultant <ul style="list-style-type: none"> • Consultant specializing in management and public relations • Background in financing • Enthusiastic coaching and problem-solving focused attitude 	NTA's managers <ul style="list-style-type: none"> • Long background in the industry • NTA had high formal authority as a major public procurer in the field • Group of managers visited Australia to learn about new project delivery methods Finnish consultant <ul style="list-style-type: none"> • Long background in construction industry • Visited USA to learn about lean construction
Mobilization efforts	<ul style="list-style-type: none"> • Formation of Prosthesis Foundation's advisory board to summon other key actors of the field of disability health care • Facilitation of interaction in regular board meetings • Visioning of change and setting agenda 	<ul style="list-style-type: none"> • Ideation of a network form of organizing private health care services • Formation of development board to summon potential members • Initial agenda setting to start forming actual goals 	<ul style="list-style-type: none"> • Setting initial agenda to introduce and spread project alliancing in Finland • Organization of industry seminars • Building internal legitimacy to gain a permit to conduct a pilot project

6.3 Stage 3: Emergence of collective action

Mobilization efforts acted as a catalyst and sparked deliberate efforts to change the existing social structure. However, our cases show that nothing could actually happen prior to the formulation of a shared agenda or common meaning describing why any collective efforts to shake the status quo are relevant. According to the insights developed in Article 3, I label such a shared agenda as a *system-level goal*, which can be seen as two-dimensional: First, it defines the concrete actions to change the local inter-organizational system such as building a socio-material artefact. Secondly, it symbolically represents the higher-level vision to which multiple diverse actors are willing to adhere. This two-fold nature of the system-level goal is essential in overcoming the second-order collective action problem, since the first task-specific dimensions induces the necessary changes into the localized structure (e.g., changes in governance mechanisms) while the higher-level shared vision gives the initial motivation but also keeps the system alive by motivating the actors to contribute to collective action in the future. Therefore, the system-level goal rises above the individual and self-interested needs and targets actions to reach higher, systematic improvements, leading to emergence of collective action system.

As the all three cases show, such goal was not defined by the mobilizers alone despite the importance of their initial efforts to frame and articulate their visions to other actors. Instead, other actors were recruited to develop the goal jointly through a step of *negotiations*. Each case involved such interactive process through which the problem was defined and potential solutions were laid out but the common denominator was that architects had to invite diverse set of actors into the negotiation tables. This stemmed from the nature of the problems at hand, which required inputs from multiple parties who could not just be excluded from the negotiations (discussed more in detail in Section 4.3).

In Rehapolis, negotiations were undertaken first in the Prosthesis Foundation's advisory board (see Article 1; p. 1233) which then formed a platform for an inter-organizational taskforce's undertaking of the Rehapolis project requiring inputs from private, public and non-governmental organizations (see Article 2; p. S88). HealthPark had its own developmental board inviting various actors together (see Article 3, p. 127). In the Lakeside Tunnel case, there existed not a single body responsible for such negotiations, but the NTA first facilitated the open discourse in multiple fronts, such as through cross-sector research projects and educative seminars for industry people as well for political decision-makers. Then when the Lakeside Tunnel project advanced, the NTA with the local and foreign consultants organized workshops to define potential risks and problems in current contracting models and created a social acceptance and support for raise of new settlement i.e. project alliancing (see Article 4, p. 309). Finally, to proceed with the actual project, they negotiated with certain key service providers who then became members of the alliance and with whom the decision-making rights over the project outcome were shared.

The success of the process of negotiations is not trivial and I would argue that most of the collective action initiatives fail in this step because of vested interests of actors leading to difficulties to establish a common ground (see, e.g., Ring & Van de Ven, 1994; Sarker et al., 2006). However, all the cases succeeded making it difficult to identify potential reasons for a failure. In addition, the list of potential success factors might be endless and highly contextualized. Many of the informants in all three cases settled to ponder that maybe the time was just right for the change, which forms an assumption that higher level socio-political and temporal structures such as national and global trends might affect the success of establishing a system-level goal. This shows how complicated it is to change the existing structures when they are highly overlapping and nested in higher level structures or fields (Fligstein & McAdam, 2012). However, one common pattern was identifiable in all of the cases forming an initial theorization about the contextual factors affecting the process of negotiations. I call that factor an *institutional similarity*¹⁹, which describes the degree to which the actors share common institutional background or logic such as operating principles, cognitive schemas, and organizational practices.

As explained fully in Article 3, such a contextual factor possesses a curvilinear moderating relationship between the process of negotiations and formation of a system-level goal (discussed also by Van de Ven, 1976). This means that on the one hand if the actors share the same institutional background (e.g., occupy a completely similar position in the organization field), it becomes highly unlikely that they can establish a common ground because they may appear direct rivals. On the other hand, if the actors are institutionally too far apart it becomes difficult to establish a common ground when they share fully different cognitive schemas and everyday language.

It is noteworthy that despite the risks of these extreme ends of the continuum, I define the relationship as a moderating one, meaning that it is still possible to overcome the difficulties but it just might require much more effort. For example, in Article 4, we declare that the domestic construction industry is institutionally complex one because of the presence of multiple institutional logics to which diverse actors are adhered. Despite this, the actors were eventually able to find a common tone and define a new temporary meso-level social order of project alliancing. However, it still took tremendous effort and considerable time noting that the problems created by such pluralistic structure were well-known at least 10 years before these efforts. Thus, this might give some explanation why the time just appeared to be right, linking the time and temporal dimension of change strongly to the level of institutional similarity. However, linking time into institutional change is much more complicated issue (discussed e.g. by Granqvist & Gustafsson, 2016) and spans outside the scope of this analysis but clearly forms an important avenue for the future research.

Finally, I want to underline the task-specific dimension of the system-level goal leading to material outcomes through what I define as *task-specific collective action* by borrowing ideas from previous theorizations of strategic

¹⁹ Referred as domain similarity (Van de Ven, 1976) in Article 3.

action fields (Fligstein & McAdam, 2012), institutional complexity (Raynard, 2016) as well as temporary organizing (Lundin & Söderholm, 1995). In each case, the process of negotiations led to deliberate or strategic actions to undertake changes. In Rehapolis, these actions were dedicated to build the health care campus. In HealthPark, the actors started to set up the shared service system and organize common web-pages and events. In the Lakeside Tunnel case, alliance members started to first define the target outturn cost of the project, outline the rules of compensation accordingly, and design technical solution of the tunnel.

Therefore, all these actions can be labelled as strategic or deliberately taken to reach the system-level goal, which is in line with Fligstein's and McAdam's (2012) notion that actors are capable of strategic thinking and act accordingly, relaxing the assumption about the oppressive nature of the social structure and thus shedding light to the paradox of embedded agency. However, I see the notion about task-specificity as an important extension of the concept of strategic action. In similar vein, Raynard (2016) briefly notes that temporary taskforces formed around a concrete task may provide an effective response to institutional complexity. Task-specificity is discussed more extensively in literature on temporary and project-based organizing, and in their seminal article Lundin and Söderholm (1995) posit that projects are temporary organizations formed to achieve a predefined task and therefore projects are, by their very nature, an action-based form of organizing. Around the same time, such notions about institutional projects, as vehicles of institutional change, was made by Holm (1995) when he discussed the ways to solve the second order collective action problem. Interestingly, it has taken long before the concept of an institutional project was incorporated into organizational institutionalism as a possible vehicle for institutional change (see e.g. Tukiainen & Granqvist, 2016) and it still awaits further theoretical development. Nevertheless, for overcoming the second-order collective action problems such temporary but change inducing actions are necessary to set up the new localized structure, which can then become to govern for collective action overcoming the first-order collective action problem.

I do not want to enter another literature review here but want to note that in the light of our empirical evidence, the task specificity clearly is an important contextual condition helping the emergence of a collective action system. Furthermore, I argue that this was mainly because the fulfilment of tasks requires actions that often produce concrete changes in the socio-material realm (see especially Article 2). In Rehapolis, this was evident when the campus eventually changed the normal daily routines and practices of the organizations involved. In a similar vein, concrete tasks to develop a joint integrated service, web pages as well as shared events brought HealthPark actors together, forming room for the emergence of shared norms and trust guiding collective action. Finally, in the Lakeside Tunnel the so-called period of ambiguity, which occurred when the rules of alliancing were not clear, was overcome when the alliance members' material practices were disrupted by co-locating them into same office and when they started to focus their efforts to reaching the common

task, i.e., to design and build the tunnel. Through these efforts the different professional groups started to interact and refine the formal and informal rules of alliancing, which then started to govern collective action.

Table 8 summarizes these different steps of action and contextual conditions through which the emergence of collective action system occurs and describes the empirical instantiations of each stage in three different cases.

Table 8. The emergence of collective action systems in the three cases

	Rehapolis	HealthPark	Lakeside Tunnel
Process of negotiations	<ul style="list-style-type: none"> PF's CEO and DA's COO formed a Rehapolis development board in which they invited potential actors interested in joining Rehapolis Through these interactive meetings the identity and goals of Rehapolis were formed 	<ul style="list-style-type: none"> Jointly framing the agenda and vision of HealthPark in development board meetings among existing campus members Inclusion of new members based on developed scenarios and updating the frame 	<ul style="list-style-type: none"> Negotiations among key project parties (the NTA and the City) about using alliance model Gaining support for the alliance model by other project stakeholders (the city council) by organizing a collaborative workshop
Institutional similarity	<ul style="list-style-type: none"> Moderate level of institutional similarity because of diverse actors (private, public, NGOs) working mainly in the same disability health care field 	<ul style="list-style-type: none"> Moderate level of institutional similarity because of homogenous organizational background (private companies) who were working in different positions on health care value chain (no direct competition) 	<ul style="list-style-type: none"> Moderate level of institutional similarity because of heterogeneous set of actors (public buyers and private service providers) who were working in the same field of construction
System-level goal	<p>Task-specific dimension</p> <ul style="list-style-type: none"> To build Rehapolis campus <p>Symbolic higher-level vision</p> <ul style="list-style-type: none"> Improve the legitimacy and visibility of disability health care field as well as services of disabled people 	<p>Task-specific dimension</p> <ul style="list-style-type: none"> Develop an integrated health care service <p>Symbolic higher-level vision</p> <ul style="list-style-type: none"> Form a private health care network offering joint services for elderly people creating synergies for multiple service providers 	<p>Task-specific dimension</p> <ul style="list-style-type: none"> Build a highway tunnel according to the highest industry standards <p>Symbolic higher-level vision</p> <ul style="list-style-type: none"> Increase collaboration in the Finnish construction industry
Task-specific collective action	<ul style="list-style-type: none"> Mobilizing more political support for the project (a letter to the mayor, inclusion of health care district) Gaining financing from public and private parties Designing and building the health care campus 	<ul style="list-style-type: none"> Designing the shared service offering Improving the campus premises to better facilitate integrated care delivery 	<ul style="list-style-type: none"> Selecting the suitable service providers based on their collaborative capabilities and industry experience Jointly defining the governance structure and goals for the alliance Designing and implementing the technical solution

6.4 Stage 4: Settlement of collective action system

The above discussed actions led to the formation of *localized governance structure* defining the behavior of actors, which I will overall call the phase of settlement. This structure comprises the formal (however, non-contractual) and informal rules, which the actors deliberately or accidentally created to govern the newly formed multi-actor entity. Most of the rules were informal and relied

on voluntariness of the participants. For example, in Rehapolis the initial mobilizers formed the Rehapolis marketing board to which every campus organization could join to influence on common issues. Social inclusion in this group clearly gave the actors meaning and many of them devoted resources to the organization of joint events and development projects in order to gain visibility for Rehapolis as a whole and for their own organizations. The only formal rule was to pay a marketing fee to help initiate such events. Similar kind of mechanisms applied to HealthPark in which a closely-knit group of private health care providers shared a common purpose, to improve their services, leading each to invest their time and effort to design a joint service portfolio.

Lakeside Tunnel was partly different because of its temporary and fully task-specific nature as well as direct monetary compensation of participating actors. The economic rationale naturally formed the initial reason for private service providers to bid for the project but interestingly this revenue-gaining and profit-making mentality was diluted on the way when alliances were formed and shifted more towards reaching the common good or to build as good a tunnel as possible. Arguably, this was achieved through the alliance form of delivery, which diluted the organizational boundaries and was based on sharing the ownership (i.e. risks and rewards) over the project. Co-location of all participants further moderated this effect when physical, or socio-material, environment was changed, forcing the actors into constant interaction. This interaction and joint-problem solving created trust among different professional groups who were earlier used to working as separate entities and allowed them to engage into collective action. Naturally, in the Lakeside Tunnel Alliance there existed also clear monetary and formalized incentives for collaboration, such as receiving bonuses if the final cost underwent the jointly set target outturn cost. Our findings indicate that these were important in the early phases of the project to initiate the alliance but they were complemented more strongly by informal trust-based mechanisms when the project progressed, which is in line with recent empirical findings about relational contracting (see, e.g., Benítez-Ávila et al, 2018).

Collective action took various different forms in the three cases but the clear common pattern was that the actions required going beyond self-interested gains and acting towards a shared purpose. Overall, I define these as actions spurred by aiming to meet the symbolic dimension of the system-level goal stressing the importance of its two-fold nature. In Rehapolis, this meant, for example, that actors were willing to devote their time and resources to collective activities such as organizing joint events, undertaking development projects, and offering professional training, all having no clear monetary return but importance to the local disability health care field as a whole in terms of increased visibility, service quality and level of expertise of the professionals. In HealthPark, a similar mentality resulted in similar actions of unconditional share of resources. Finally, in Lakeside Tunnel Alliance, the participants felt a strong call of duty and professional pride to jointly build the record long tunnel in the best possible manner but also saw the importance of the project as a

landmark project to introduce new collaborative form of organizing to the field of construction as a whole.

It is still noteworthy that all of the cases also seemed to provide *net benefits* to participating organizations (discussed also in Article 3), which were essential for keeping the system together. This relationship is indicated in the model as a positive feedback link between the nodes of net benefits and localized governance structure. These benefits were by no means purely monetary ones but at least there existed the sense of importance among the participants when describing why they engaged in such actions. In Rehapolis, many saw that increasing the visibility of disability health care and improving the services will eventually lead to improved levels of public health or at least awareness about disabilities and their care (important to public and non-governmental organizations) or increased demand for the products and services of private providers. Although these individual goals might be somewhat contradictory (improved public health might lead to decreased demand for health care services) the jointly set system-level goal offered enough common ground to act together. In HealthPark and Lakeside Tunnel such net benefits were also both monetary (a prospective of increased revenues in HealthPark and better project bonuses in Lakeside Tunnel) and more informal such as reputational gains (both HealthPark and Lakeside Tunnel gained media visibility going beyond what single companies could achieve). Therefore, I argue (as discussed in Article 3) that a functional collective action system needs to at least partially combine collective benefits to self-interested gains in order to overcome the social dilemma of freeriding (Ostrom, 1990).

The challenge in the net benefits was clearly that they were not always very concrete or tangible. Instead, lot of sensemaking and even deliberate sensegiving by the elite actors was required in order to help the participating actors to see that producing collective benefits may help individual actors as well. Indeed, our findings indicate that the important role of active mobilizers continued after the initial emergence and goal formation steps albeit in slightly altered form. In any case, it seemed important that such facilitators continued to play an active role in bringing the actors together, facilitating the interaction and helping the actors perceive devoting precious time to collective actions meaningful. In Rehapolis, the Disabled Association's COO continued to regularly summon the actors to the marketing board meetings as well as approach them in more mundane facility management-related matters. In HealthPark, Orton's CEO admitted that the most important, albeit difficult task, was to keep up the gained momentum and that the only way to do this was to just facilitate interaction and continuously remind everyone about the shared goals as well as jointly revise these goals. In a similar vein, in the Lakeside Tunnel Alliance the alliance management team organized developmental workshops and training sessions on a regular basis to remind the participants about the overall alliance goals and re-define the sub-goals according to the past accomplishments. Furthermore, external facilitators were invited to brief and remind project employees about alliancing principles. Table 9 summarizes these different elements of the formed settlement spurring collective action.

Table 9. The settlement of collective action systems in the three cases

	Rehapolis	HealthPark	Lakeside tunnel
Localized governance structure (formal and informal governance mechanisms)	<ul style="list-style-type: none"> • Regular marketing board open for all actors • Shared campus buildings enhancing interaction • Shared practices (e.g., in appointment booking) • Accumulation of trust • Marketing fee 	<ul style="list-style-type: none"> • Development board meetings • Shared campus buildings enhancing interaction • Joint service development determining the role of each actor in health care value chain • Accumulation of trust • Sense of reciprocity and synergies 	<ul style="list-style-type: none"> • Joint co-located alliance organization among five independent organizations • Jointly developed alliance agreement formally defining the rules, compensation models and possible sanctions • Governance structure consisting of ALT and AMT having representatives of all organizations • Informal governance through joint practices, high social interaction forming social pressure
Collective actions to meet the symbolic dimension of the system level goal	<ul style="list-style-type: none"> • Organizing joint events in which majority of actors provided input • Joint development projects to improve services of disabled people 	<ul style="list-style-type: none"> • Development of joint service offering • Organization of joint events 	<ul style="list-style-type: none"> • Joint actions towards the best of the project – designing and delivering the tunnel in time and on budget without disturbing environment
Net benefits	<ul style="list-style-type: none"> • Improved visibility of the whole disability field • Improved services for disabled people • Marketing opportunity for private companies • Highly accessible premises 	<ul style="list-style-type: none"> • Increased customer flows to the whole campus • Increased visibility • Improved shared premises 	<ul style="list-style-type: none"> • Monetary compensation of service providers was tied to success of the project • Savings to the public buyers • Reputation gains and visibility when completed successfully
Mobilizer	<ul style="list-style-type: none"> • DA's COO chaired marketing board meetings • Initiated different activities e.g. events, development projects etc. 	<ul style="list-style-type: none"> • Orton's CEO and external consultant organized development board meetings • Consultant crafted the initial service prototype by engaging other actors 	<ul style="list-style-type: none"> • NTA managers and external consultant continued organizing joint workshops to build alliancing spirit and give sense to new collaborative practices

6.5 Stage 5: Reshaping

The above findings indicate that reaching collective action among multiple organizations requires a tremendous effort to set up a system with supportive elements (i.e., the localized governance structure) that encourage the diverse actors to devote their limited resources to the common good with only vague promises of self-interested gains. Furthermore, such a system is by no means a stable one but there seems to exist a certain type of strong entropy, which tends to increase and drive the system towards increased disorder (i.e. collective inaction) if continuous efforts to maintain the achieved settlement are not taken. These views based on my empirical inquiry are in line with the system-theory-based assumptions about organizations as open systems (Von Bertalanffy, 1968) and thus constantly open to exogenous and endogenous impacts towards which the system needs to be governed, which is also in line

with more recent and generic theorizations of fields (Fligstein & McAdam, 2012) and institutional maintenance (Lawrence et al., 2013), which all state that similarly to producing change, maintaining order and *status quo* also require deliberate actions rather than passive presence.

Based on the empirical cases, I can validate these theoretical statements to a limited extent. Most clearly through the Rehapolis case, in which a clear dismissal of collective action was reported to occur during the more recent times. Our informants stated that after the retirement of the Disabled Association's COO, then the Prosthesis Foundation's CEO, Rehapolis was not the same. Instead, the marketing board, the chairing of which was now left to a successor, ceased to meet on a regular basis, leading collective actions to slowly wither away. Our informants described simple reasons, such as lack of time and resources as well as difficulties to see the potential benefits of such actions. Interestingly, organizations within Rehapolis had stayed rather unchanged and it is highly doubtful that the self-interested goals of these organizations would have changed. Instead, the changes in potential personal relationships (e.g., retirement of the two key persons and changes) caused even the previously eager persons to lose their interest.

This implies that shared meaning and common purpose or ultimately a system-level goal is not objectively given but socially constructed through interaction, meaning that it matters by who and with whom such a goal is framed. This is in line with Fligstein's and McAdman's (2012) statements about social skills, some individuals seem to be just better off in framing a common purpose and getting others to join the cause. Indeed, based even on the subjective assessment of the researcher, one finds it hard to deny the charisma of both the aforementioned leaders, the one being a Paralympic gold medalist and the other being a successful but warm-hearted businessperson.

Another potential explanation for the diminishing of the Rehapolis campus network might be a lack of rigor in the localized monitoring and gradual sanction system which would discourage actors from free-riding (Ostrom, 1990). This is an interesting aspect and arguably hard to implement in the Rehapolis context, which was based on voluntary efforts. Instead of formal sanctions, there still seemed to be some level of positive social pressure to participate at least when the two mobilizers still served. In addition, they collected a marketing fee as a contribution even from those who did not value joint activities. Clearly this fee was not a sanction and perhaps acted as quite the contrary when some actors just tried to buy their way out. When compared to slightly more formal contract-based governance system in the Lakeside Tunnel, the alliance as a whole had right to sanction its participants and disputes needed to be solved locally within the alliance. However, one should remember that the Lakeside Tunnel Alliance, as a temporary organization, had a shorter lifecycle and was fully task-focused in its operations, which might safeguard the system to slip into a negative cycle of free-riding.

Nevertheless, it appears collective action systems are vulnerable to both exogenous and endogenous *disruptions* such as one-off system shocks or more

longstanding stressors, being deliberate actions taken by individuals towards change (e.g., raising of opposition or deliberate termination of the system such as the Lakeside Tunnel), undeliberate actions with serious consequences (e.g., decisions to retire) or changes in the larger institutional environment (e.g., introduction of new laws or regulations preventing collaboration). All of these can lead to disruption in the system, diminishing collective action by either constructing new meaning (deliberate effort to change the system) or by preventing the maintenance of the existing rationale and supportive local institutions (as happened in the Rehapolis case).

Nevertheless, this dynamic nature of any open social system is an important characteristic because by allowing a system to wither in the same time permits renewal and change. Only through this inborn instability of social structures is change possible, although it might first lead to institutional void and complexity perplexing organizing (see, e.g., Micelotta et al., 2017). This important feedback link is indicated also in the model, as well as briefly discussed in Article 4 (see the discussion and limitations sections), when disruption at the same time negatively affects the existing system and positively increases pluralism. On the other hand, such disruption or reshaping is not purely negative but provides an avenue for renewal and trial-and-error type of learning preventing the cementation of malpractices. Therefore, it can also be argued that such a cyclical and evolutionary pattern is necessary to formulate the system meeting the constantly changing demands of the external environment (Ostrom, 1990).

7. Conclusions

Throughout my doctoral research, I have tried to understand how multiple organizations can collaborate to jointly create value not just on an individual level but on the level of the whole system of heterogeneous actors. Understanding this fundamental empirical problem that contemporary organizations face led me to examine it from multiple theoretical angles in the four published articles, which provide several independent contributions to the multiple bodies of literature. However, the common denominator between these individual studies was the identification of multiple social institutions as important informal governance mechanisms for inter-organizational value creation. Therefore, in this compiling part of the article-based doctoral dissertation, I sought to further unify the insights of the four articles into a single theoretical perspective by developing and utilizing a theoretical lens of collective action which could provide more clarified contribution to our understanding on inter-organizational value creation. The reason for this choice is that I fundamentally see joint value creation among multiple independent organizations as a collective action problem or how actors can sacrifice self-interest for collective benefits (i.e., system-level value). I approached this dilemma from behavioral and neo-institutional perspectives, and I was interested in understanding the role of social structure, in the forms of formal and informal rules, values, norms, taken-for-granted practices (i.e. institutions), as enablers and potential constraints for collective action. In line with previous studies in organizational sociology (see, e.g., Fligstein & McAdam, 2012) and neo-institutional theory of organization (Scott, 2001; Greenwood et al. 2008), I depict social structure and actors embedded into it as a dynamic system, which is open to continuous deliberate and undeliberate actions of actors reproducing, maintaining, and changing the system's structures.

When adopting such social systems' perspective, the key paradox to be solved is the so-called second-order collective action problem (Ostrom, 1998) which can be seen as a special case of the paradox of embedded agency (Holm, 1995) presenting a dilemma of how actors embedded in a structure constraining collective action can engage in collective action to change the system to spur more collective action. This compiling part of the dissertation sought to shed light to this theoretical puzzle through synthesizing the four empirical articles and providing a processual view on how actors were capable of producing such agentic change to pursue collective system-level goals.

Overall, I see this dissertation to contribute into our understanding of value creation among multiple heterogeneous organizations. More specifically, my findings in the individual articles and in this compiling part suggest that to really create value through inter-organizational collaboration by solving complex common problems, organizations should go beyond transactional and contractual relationships and focus on developing sufficient social institutions such as trust, norms and organizational practices that support collaboration and reciprocity. In many occasions, the problems at hand indeed require inputs from multiple organizations and it becomes complicated to form definite contracts to govern the problem-solving. Into such ill-defined situations, the findings of this dissertation, which emphasize the role of social structure as important governance mechanism for collective action, become relevant.

However, it goes without saying that this dissertation is a result of an iterative path. Therefore, it is highly doubtful that I could have developed the collective action perspective, being the main focus of this compiling part, without writing the four independent articles, which acted as an important learning path to the final conclusions presented here. Therefore, in this concluding section, I would like to distinguish between the contribution made through the individual articles and the efforts taken in this compiling part. Thus, I will first return to the four articles introduced in Section 2 and summarize their overall contribution, which formed the crucial basis for the remainder of the work presented in this compiling part. Then, I will discuss more in detail the contributions of the compiling part. Finally, I will discuss the managerial implications, limitations, and future research avenues of the whole dissertation.

7.1 Overall contributions of the four articles

The two first articles discuss the Rehapolis case in the field of disability health care and show how diverse actors started to solve a common problem of disability health care delivery by changing the local field towards increased integration and collaboration among private, public and non-governmental organizations. The third article added insights from the HealthPark case and the fourth and final article discussed inter-organizational collaboration and institutional changes in the domestic construction industry.

Each article used its own theoretical lens to look at the inter-organizational value creation. Despite their inherent differences there is a clear common pattern between the papers and their most important findings. This is the apparent importance of social structure as an effective governance mechanisms of inter-organizational value creation. In the other words, there existed either no formal contracts (in Rehapolis and HealthPark) or a very loose contract (an alliance agreement in Lake-side Tunnel) between the diverse parties engaging into joint value creation. Instead, the governance was organized mainly through building a consensus around a system-level goal, which defined the value creating activities between companies, as well as through less formal mechanisms such as trust, norms, and organizational practices governing the undertaking of these activities.

Another important finding across the articles was that neither the system-level goal nor the supporting institutions are developed organically. Instead, active facilitation by certain key organization or its representatives was required. However, this deviates from the typical focal or hub firm approach prevalent in network management literature (Dhanaraj & Parkhe, 2006), in which the focal firm is also seen as the nexus of contracts or the managerial activities to set up a network, which governance then relies on strong (purchasing) power of the focal firm. In our cases, the focal firm, what we called as an architect acted more as a facilitator giving the initial vision about the change.

Overall, these findings contribute to the past literature on inter-organizational value creation especially to streams focusing on the role of social structures such as management of business and innovation networks (see e.g. Möller & Halinen, 2017) by further defining different processes through which the governing structures could be put in place and sustained

The articles indeed were able to show that governance of inter-organizational value creation does not always take place through transactional or contractual relationships (a specific focus of Article 3). However, while providing convincing results that such developmental processes towards joint value creation can occur through actor-led institutional change, the articles themselves did not fully explain how actors can overcome the constraints of the existing (non-cooperative) structure or to solve the paradox of embedded agency / second-order collective action problem. This becomes especially apparent in situations in which the problem-solving requires input from multiple parties who are not initially willing to cooperate but could not be excluded. These aspects formed motivation for depicting of inter-organizational value creation as a collective action problem, which became the major focus of this compiling part acting as mean for further synthesis of this dissertation's findings providing a unique contribution discussed in the following.

7.2 Theoretical contributions of the compiling part

This compiling part contributes to the past research on inter-organizational value creation, collective action and organizational institutionalism by depicting a process model through which actors can overcome the second-order collective action problem. To analytically solve such problem, I adopted a critical realist view on causation and stratified ontology (Bhaskar, 1975; Sayer, 2000) which allowed me to utilize analytical dualism (Reed, 1997) to analyze action and structure as separate yet interrelated entities allowing the distinction of two important elements: conditioned action, a prerequisite of the social change and resulting from special combination of the structure (e.g., existing institutions), and contextual conditions (e.g., random variation in actors' characteristics and/or situated norms). This simple analytical framework encapsulates my synthesis approach, through which I revisited the empirical cases to construct a process description of each case narrative.

Thus, by using the contributions of the individual papers and decoding the three cases, I was able to conceptually depict an analytically generalized (Yin, 1994) the developmental process of a collective action system. This model consists of five important phases named the premises, the catalysts, the emergence, the settlement and finally the disruption. The model sheds fresh light on understanding the premises, process and outcome of social change towards collective action. I explain the five exact contributions of this compiling part in the following.

First, I argue that institutional void, caused by a pluralistic social structure, is an important premise for the institutional change towards collective action. More precisely, I argue that when divergent and conflicting institutional demands clash and start to problematize mundane organizing, certain actors may seek alternative ways of organizing. This then contributes to the formation of a common problem, which solution needs inputs from diverse non-excludable actors paving the way to formation of a collective action system. These findings contribute to theories of collective action and organizational institutionalism by providing further empirical validation for recent theoretical claims describing such institutional complexity as a potential initiator and driver of institutional change (see e.g. Micelotta et al, 2017).

Second, the characteristics of the key actors, mobilizers, are not trivial but instead seem to create pivotal contextual conditions producing conditioned counter-institutional action helping to overcome the second-order collective action problem or the paradox of embedded agency. Therefore, the model complements the past theory of institutional entrepreneurship, which has focused on structural position of these actors being either central (Greenwood & Suddaby, 2006) or peripheral (Leblebici et al., 1991). Our findings (especially in Article 1) show that the central structural position of mobilizers was clearly an important condition. However, in addition to being central in one field, a potential mobilizer needs to have access to another dissimilar field increasing one's reflective capacity. Furthermore, a mobilizer needs to possess strong relationships (relational dimension) as well as share cognitive similarity (cognitive dimension) with potential followers, allowing better formulation and communication of a shared agenda. Thus, this finding complements the earlier writing in neo-institutional theory emphasizing the strong social skills (Fligstein & McAdam, 2012) and overall social position (Battilana, 2006) of the individuals by further grounding the view that social skills are not necessarily fixed inborn characteristics of individuals but result from personal experiences as well as the actor's deliberate actions to align the existing social structure and one's own mobility within it (e.g., creation of social capital in its dimensions of structural, relational and cognitive). Overall, this complements the recent views in the behavioral theory of collective action, which underline the importance of actor-related characteristics (i.e., social capital) as enablers of collective action and thus value creation among multiple actors (Ostrom & Ahn, 2009; Tsai & Ghoshal, 1998).

Third, the empirical findings show that emergence of institutions for collective action occurs through a process of negotiations (similarly as in e.g. Bishop & Waring, 2016) in which a group of non-excludable actors, possessing specific capabilities to contribute to the solution, formulate a common purpose for the collective action, namely the system-level goal. The mobilizer plays a crucial role as a facilitator of this process but does not alone define or dictate the goal or rules but act more as an interpreter framing a potential problem and solution requiring inputs from heterogeneous actors. The institutional similarity (i.e., the degree to which they share similar cognitive schemas, values, and norms) of the actors acts as an important moderating variable in this process, which complements the previous views (Ring & Van de Ven, 1994) on its importance for the increased levels of collaboration in inter-organizational relationships. This contributes to the theory of collective action and organizational institutionalism by showing that construction of collective action frames (Benford & Snow, 2000), such as the system-level goal, is a dialectic process. This means that the two or more actors, entering into a discourse over the goal, should hold reasonably different or even contradicting points of view (i.e., optimal level of institutional similarity) in order to come up with a goal, which is appealing to wide variety of actors. It is then the mobilizers task to act as a conciliator in this process. Such view is new in neo-institutional theory, since it shifts the focus of the original conception of social skills as pre-requisites for actor-led institutional change (Fligstein, 1997) and compromises ideas about heroic characteristics of institutional entrepreneurs (Battilana et al., 2009) such as superior cognitive abilities (e.g., capability to form goals appearing appealing and motivating others). Instead, I suggest that social skills (as contextual conditions) should be approached from more action-oriented angle to include mobilizers' capability to actively facilitate and umpire the dialectic process of negotiations among diverse parties.

Fourth, the important contribution of this dissertation is the emphasis of the two-fold nature of the system-level goal. In order to overcome the second-order collective action problem, the system-level goal needs to direct the actors to jointly induce immediate changes in the localized system (task specific collective action to produce institutional change). Therefore, the system-level goal needs to have a more task-specific dimension prescribing concrete actions to be taken. However, meeting the tasks to shake the *status quo* may not sustain collective action in the long-run and therefore the system-level goal should also have a more symbolic dimension representing a higher-level vision or ideal that is timelessly adherable to multiple actors. This symbolic dimension then starts to guide the mundane organizing and motivates actors to invest in collective action, while the collective action system is in place. This two-fold description of the system-level goal helps us understand why organizations are not capable of producing change (i.e. lack of concreteness in the goals) but also why sometimes collective action is not sustained despite promising initial efforts (i.e. lack of higher-level vision permitting longevity). The view is analogous with Holm's (1995) nested-system approach by describing the task-focused actions as a separate (yet interrelated) arena for change producing action while the

resulting social structure (guided by the overarching vision) provides the arena for sustained collective action.

The task-focused perspective further contributes to literature of institutional change (Raynard, 2016) by linking institutional change with the literature of temporary organizing (Lundin & Söderholm, 1995), helping us better understand how task- and project-based forms of organizing aimed to produce certain material artefacts can simultaneously produce not just technological advancement but also change in social and organizational systems (see, e.g., Tukiainen & Granqvist, 2016; Artto et al., 2016). In addition, this important phase in the change process acts as a link between neo-institutional theory of organization and the behavioral theory of collective action. The latter has traditionally focused on investigating collective action around certain shared assets such as irrigation systems or common pastures (see e.g. Ostrom, 1990). These findings thus explain that why forming a collective action system to solve a concrete and local problems seems more achievable than focusing on complex and transcendental type of problems such as climate change (due to possibility to shape more task-specific goals to meet less abstract and complex problems). However, the nested-system approach underlined in this study enables solving even these grand challenges when a sufficient number of local or actor-level frame changes occur and eventually lead to change in higher field-level structures and logics (see e.g. Ansari et al., 2013).

Fifth and finally, this dissertation forms an important contribution by adopting a system view of collective action, meaning that the above-described process results into a new state of equilibrium or settlement in a dynamic system instead of a fixed and stable end-state. This notion assumes that overcoming the second-order collective action problem, or producing a sufficient amount of collective action to re-define the system, indeed helps to spur collective action leading to collective net benefits which are required to maintain the settlement. However, such settlement is vulnerable to exogenous or endogenous shocks and stressors requiring constant maintenance and facilitation of interaction in order to prevent potential disruption and slippage to new state of equilibrium. Such a systems view complements the existing views of fields (e.g., Fligstein & McAdam, 2012) as dynamic structures that require constant and oftentimes deliberate institutional work to maintain the status quo or resist the change (Lawrence et al., 2013).

The view also allows going beyond a normative approach to social change. Instead of describing change as desirable or good, it is seen as a natural characteristic of any open system, which may appear static but is constantly on the move as social interaction unfolds and actors contribute to, enter and exit the system. Then, some of these micro-level changes (e.g., the entrance of a new mobilizer) can lead to conditioned actions punctuating the stasis or equilibrium and cause relatively rapid radical change to occur, a view that is supported, for example, in punctuated equilibrium theory (see e.g Gersick, 1991; Romanelli & Tushman, 1994). This view adds a refined perspective to collective action theory, which depicts institutional change towards collective action as an evolutionary

process, which means that collective action may improve survival at the population (e.g., communities are stronger against threats than individuals alone). Thus, actors who are more aligned towards cultural norms supporting collective action may have higher survival rates on the individual level (Ostrom, 2000). The dynamic systems view elaborated here complements such a view on the evolution of the institutional structure by offering an explanation why sometimes the institutional change may appear more rapidly than typical evolutionary process, driven by natural variation within a population. Namely, this is because the stasis may be punctuated by an external shock, making compliance with existing norms redundant and thus resulting in rapid, surprising and radical change.

7.3 Practical implications

The focus of this dissertation is mainly theoretical but the need for theorizing stems from a desire to understand a practical management problem, namely how to get two or more different organizations to work together. When also accounting the famous proverb credited to Kurt Lewin²⁰ that “there is nothing more practical than a good theory”, it would be shameful to end up with nothing to say to managers. In general, I see that by educating oneself with organizational theories and especially organizational institutionalism one can increase one’s reflexive capacity or in other words become more acknowledge of potential institutionalized (mal)practices, increasing the likelihood that they become gradually changed. However, my intention is neither to forcefully educate managers nor to engage into too theory-driven debate what they should know or do. Instead, I settle for delineating a few different perspectives, which managers and policy-makers should consider when trying to increase collective efforts across and within organizations or to solve the everyday social dilemmas.

7.3.1 Implications for managers

For managers at all levels who are engaged in inter-organizational relations in their daily duties²¹, I want to provide five points of advice. All the following points are based on the empirical research and theorizing presented in this dissertation and predominantly derive from the depicted conceptual model.

First, inter-organizational value creation through collective action is about governance but not in the term’s traditional meaning. Formal governance mechanisms such as partnership contracts and agreements could act as means to spur collective action but can be rather ineffective especially in situations in which problem to be solved is ill-defined complicating bargaining and formation of exact contracts between parties. Instead, contractual

²⁰ Renowned father of social psychology and early pioneer of the field theory in social science.

²¹ Including but not limited to managers working in operational, strategic and support functions such as project managers, operations managers, general managers of small and large companies, human resource managers, sales managers, as well as product managers working with new product development.

arrangements need to be complemented (or in some cases supplemented) with more informal, social or behavioral mechanisms such as shared values, goals, norms, and practices, which then allow accumulation of trust and sense of reciprocity among actors. Such informal mechanisms are developed only through interaction (e.g. regular negotiations and sensemaking) with each other.

Second, the key managerial task is to come up with a common purpose among diverse set of actors and align the governance structure accordingly. This is not a forceful act but occurs only through facilitated interaction among potential participants, such as by forming inter-organizational coordination bodies and regular developmental workshops. A commonly identified problem may offer a good starting point for such a negotiation process although the actors might not share similar stances on such problems. Therefore, it is noteworthy that the diversity of organizational backgrounds may complicate setting the common ground but it may become difficult to exclude actors whose competence might be crucial for the solution. On the other hand, completely similar organizations (e.g., direct competitors) will unlikely find a common purpose for collaboration.

Third, paying a lip service is not enough. Developmental efforts to form a common goal need to be encapsulated into a practical plan guiding action. In other words, the vision and goal need some kind of material realization such as undertaking a joint project to build up an artefact (be it a physical asset, product or a more intangible service), which can be used to spur task-specific actions to change *status quo*. By taking the necessary actions to achieve predefined tasks the participating individuals can build trust spanning over organizational boundaries.

Fourth, usage of the jointly developed artefact forms new cross-organizational routines and practices that themselves start to govern collective action, when cross-organizational interaction is increased. Through these collective actions the participants should receive net benefits which include, beside crude monetary benefits, social aspects such as increased visibility and legitimacy of the industry sector as whole. These net benefits then keep the created system in a positive cycle. However, active facilitation, such as through coordination bodies, is still required to maintain the existing formal and informal governance structure. Routines and practices need to be put into action in order to prevent the system from internal or external disruptions.

Fifth, disruptions and changes are a normal part of all social life. One should not adopt a normative stance towards change (describing it as good or bad) but understand when collective action is necessary and producing desired outcomes. Partnerships such as friendships and even marriages will sometimes harden and wither for multiple reasons. The key question to ask on the brink of decay is if the commonly crafted purpose for collaboration is meaningful in current and future terms. If not, either full termination of the system or refinement of the agenda and governance mechanisms is necessary. Dynamism is a constant characteristic of any system, social or natural, when it needs to adapt to changes in the surrounding context. Trial and error are therefore

inevitable and its acceptance and facilitation is in the heart of successful management.

7.3.2 Implications for policy-makers

The past literature as well as my empirical findings clearly show that the regulative and legal dimension of institutions has a tremendous influence on organizational behavior in forms of different laws, regulations and standards. Therefore, many aspects discussed in this dissertation go beyond the influence of managers of single organizations but also need policy-makers' attention. Here, I provide three points that policy-makers should keep in mind when implementing legislative and regulative changes dedicated to improve collaboration between organizations.

First, policy makers should re-think their stance on the preserving myth about the power of market forces as the most efficient mean to organize complex undertakings. In our empirical cases from mature fields, we witnessed many regulative efforts to induce market mechanisms especially in public procurement through the EU-wide Public Procurement Act, which forced public organizations to procure goods and services through competitive bidding. The downsides of such legislation were evident in all cases, coercive pressure to use competitive bidding complicated long-term relationship building and collaboration. In the Lakeside Tunnel case, the NTA's managers actually needed to stand up and indicate that project alliancing can be classified in the category of competitive dialogue under the EU Public Procurement Act. This required tremendous effort to re-interpret the law and receive the EU's Supreme Court's positive decision to support and create legitimacy for the alliance model. Thus, a legislative system set up in good intentions to govern probity in public procurements started to constrain collaborative behavior and kill innovation. Ironically, the legislation was set to exploit market dynamism but began to act contrary and hinder such dynamism. Fortunately, steps have been already taken towards improvement when the revised version of the act was introduced in 2017, which is now more allowing towards long-term partnerships (under the category of "innovation partnerships") as well as relaxing the importance of monetary component in selection criteria.

Second, policy-makers should carefully consider approaches to enhance localized governance solutions. This is still an ongoing issue in many fronts such as in Finnish employment politics, which traditionally relies on centralized negotiations among workers' unions, employers, and the parliament. Many cries towards localized negotiations have been made, especially from the employer's side of the table. As this study and many before (e.g., the work of Elinor Ostrom) show, localized solutions are, at their best, effective means to govern for collective action, which employment relations, for example, ultimately are all about. However, negotiation contexts in such cases (and many more) might provide to be rather imbalanced in terms of authority and power and lead to the implementation of oppressive structures (hypothetically resulting the exploitation of workers). In all three cases examined in this study,

the parties participating in such negotiations were on many terms equal (e.g., major public actors vs. major private companies), which resulted in a balanced outcome. Careful analysis of each context is thus required before declaring an effective solution, or, as in Ostrom's (1990) words, there is no "the only way" to govern the commons.

Third and finally, I would like to underline the rhetorical dimension in the construction of social structures. This note goes more to politicians making the final decisions over legislative changes but is applicable to anyone having a public profile and a voice in public debate. More informal governance mechanisms discussed in this study such as norms, values, and common beliefs, are not developed through regulative means²² but through social interaction and discourse. Therefore, the higher-level societal discourse reproduced, maintained and ultimately changed through public dialogue (typically among and by those in power) may start to depict what is considered to be legitimate behavior, right or wrong or ultimately what is real. Therefore, politicians need to carry responsibility for what they are saying and not just for what they are doing, since the rhetoric may eventually lead to social acceptance of certain (mal)practices, which eventually may become a norm-defining behavior.²³ During these times of falsified media accounts and knowledge claims, or so-called fake news, as well as strong political discourse, we are especially on the verge of creating a social structure that does not encourage collective action but is overly focused on self-interested gains.²⁴ It goes without saying that such an egoistic climate will not help solving the global grand challenges we are facing, most importantly the climate change. Instead the leaders should step out from harmful cycle of defective choices (e.g., tit-for-tat strategies in potential trade wars or other global political conflicts) and urge to turn the ongoing discourse to the value of governing for the common good. All that it needs is to start talking.

7.4 Limitations and future research

In this compiling part of my article-based dissertation, I have described inter-organizational value creation as a collective action problem. Originally, theory of collective action has been developed for special cases of public goods and common pool resources in which inputs from heterogenous actors are needed for sustainable consumption of a shared resources and production of a common

²² Although legislation should also arguably get passed only after profound moral considerations.

²³ As argued throughout this study, structure and action are related; however they are not related in hierarchical terms, meaning that action can deviate from structure. Still, not all are capable of reflective behavior but potentially in the danger of becoming "social dopes."

²⁴ I am not here to enter into political debate but it is worth noting that during the time of writing this thesis, there exist world-wide signs of rise in extreme nationalism, which can be depicted as self-interested behavior in the transnational arena of social life. Arguably, constant media accounts and the rhetorical leadership of a loud-voiced few may lead to setting new rules of normal, appraising importance of a national (self-interested) agenda over the global (collective) one (for an example in the context of Eurozone crisis, see, e.g., Vaara, 2013)

good. Hence, the original theory is somewhat limited to situations in which it becomes hard to exclude actors from enjoying the benefits of good or resource (such as national defense or a common pasture) requiring therefore mechanisms to mitigate self-interested behavior or free-riding and shirking. In this dissertation, I aimed to show that collective action problem seems to persist also outside the purely public good domain when multiple organizations need to tackle ill-defined problems requiring inputs of all participating, yet heterogenous, actors. Therefore, I see that the developmental process of collective action systems developed here is applicable only to certain types of value creation scenarios, namely to those where finding any solution to an ill-defined situation can be seen valuable. In fact, in situations where it is possible for a single party to define a solution (e.g. production of a purely excludable private good) and therefore set up a contractual governance system, it makes little if no sense for actors to actually engage into complex negotiation process to start re-shaping social institutions for setting up a collective action system. In such simple cases, transactional and contractual relationships are sufficient. However, when discussing more complex problems, such as the grand challenges, the informal and social governance structures and indeed theory elaborated in this dissertation becomes more relevant and tenable.

Hence, in this compiling part I combined two distinct lines of theory; theory of collective action and neo-institutional theory of organizations to formulate the collective action perspective to better understand how multiple organizations can engage into joint value creation. To mitigate potential epistemological and ontological discrepancies between these divergent lines of study, I adopted the philosophical view of critical realism and engaged in a synthesis of the four empirical articles examining three cases, which I named collective action systems. As discussed, the theoretical and empirical set-up has provided a novel understanding of collective action but surely does not come without its limitations. In the following, I discuss two different domains of such limitations and provide potential mitigation approaches for the consideration of future researchers.

The first domain of limitations relates to the chosen lines of theory. In general, inter-organizational collaboration and value creation could be approached from multiple theoretical angles as I have done in the original publications. While crafting this compiling part, I came to see that collective action potential lens allowed synthesis of the different findings. However, I also felt that the traditional political science-flavored discussion of collective action needed to be complemented with the perspectives of organizational institutionalism to fully capture the complexity of the empirical phenomenon. These two streams share rather distinct epistemological and ontological stances. Both declare that institutions are to govern human behavior, and while sharing different definitions, the key question is an ontological one and could be phrased as: are institutions real? For political economists these institutions are human-devised (North, 1991) so they are as real as any man-made artefacts open for objective examination ranging from technologies to pieces of art. Neo-institutional theory has traditionally leaned more towards social constructivism depicting

institutions as subjective products of social interaction incapable of existing without the actors enacting them (Berger & Luckmann, 1966). However, more recent theorization (Ocasio et al., 2017; Delbridge & Edwards, 2013; Leca & Naccache, 2006) describe institutions as real phenomena. This has motivated me to adopt the critical realist view and to describe institutions to exist in the domain of real, which means that they exist objectively without our subjective awareness or knowledge about them. This means that institutions as social rules are truly generated through social interaction as shown in the empirical study conducted here, but actors do not need to be aware of their existence in order an institution to be functional. Otherwise, the taken-for-granted nature of institutions would not exist.

Despite being one key theoretical contribution of this study, this element forms clearly its strongest limitation: How one can be sure of the objective nature of institutions and how transferable knowledge among two different domains sharing divergent epistemologies is? To mitigate this issue, I decided to focus on a more behavioral line of studies in the theory of collective action (e.g. Ostrom, 1990), which stepped away from purely rationalist view toward bounded rationality. When we accept bounded rationality, we accept that one's behavior is constrained by one's limited cognitive capacity, which on the other hand is affected by one's past experiences and memories, as well as used language, which all contribute to the construction of categories and schemas leading to potential heuristics and irrational decision-making and behavior (see, e.g., Neale et al., 2006). This is clearly where the two different theories used here converge, since cognitive schemas can be the result of social interaction and institutionalization of norms, values, and practices (Thornton et al., 2012). Acknowledging this linkage is crucial but still an under-researched domain (even in this dissertation) and would require mindful reviewing and combining divergent bodies of knowledge, such as experimental economics and cognitive psychology as well as social psychology and sociology to fully understand how social structures translate into individual actors' cognitive structures and become to guide human behavior. This is yet a black box in both streams of research when the theory of collective action has perhaps been overly focused on economic modelling of collective behavior (and mainly its barriers) and organizational institutionalism has avoided entering too micro-level studies of human behavior. Further cross-fertilization with other disciplines might provide to be a fruitful and worthwhile effort but also form several pitfalls because of epistemological and ontological premises (as discussed in this section) which the future researchers need to continue taking into account when engaging in such efforts of bricolage (see Suddaby et al., 2011).

Another set of limitations is more methodological. Concerning the empirical work leading to publishing the four articles, one could always try to collect more data and it is difficult to decide when the saturation point is reached. One of the key limitations of the three empirical case studies is the temporal dimension, namely the lack of true longitudinal research approach, albeit we followed the early emergence the HealthPark and Lakeside Tunnel cases at the time the things were happening, offering some points for participant observations. The

Rehapolis case was purely based on retrospective accounts, which naturally may lead to positive biases in the informants' description and therefore in our interpretation. Of course, we aimed to mitigate these risks through triangulation by utilizing secondary data sources.

These methodological issues when studying institutional or any social change continue to challenge organizational researchers. 10 years might not be a time frame long enough to witness institutionalization, as coined by Richard Scott in his keynote speech in Engineering Project Organization Conference in South-Lake Tahoe, June 2017. Therefore, the temporal dimension of social change spans well beyond the time constraints of a typical PhD project. However, this does not mean that the patterns could not be visible in shorter time periods as shown in this study but one needs to be careful when declaring something to really become institutionalized. Naturally, when only a snapshot is obtained, one will never perfectly know what will happen when one leaves the research site.

Another challenge is to fully capture the nested nature of social systems (Holm, 1995) or to look at two or more things at the same time, meaning that a researcher needs to focus on micro-level actions and at the same time observe the changes in the more macro (or meso) level structures (Haedicke, & Hallett, 2015). While synthesizing my findings by revisiting the empirical cases and their narratives, I aimed to mitigate these issues by applying a process study design with a visual mapping approach (Langley et al., 2013), combined with a critical realist view of causation (Sayer, 2000), which allowed construction of a clear timeline of events and map of respective contextual conditions and changes in the social structure. Naturally, this neither completely solved the potential for retrospective bias, nor granted a full transparency to mundane micro-level actions and only allowed formation of the best available explanations with these constraints. This allowed me to formulate a conceptual developmental process of collective action systems, which emphasizes the actor-led institutional change towards jointly created system-level goals and their realizations in the socio-material context. In other words, the model opens one black box by showing how new localized social structures are formed when powerful actors mobilize others around a shared goal producing task-specific actions.

Unfortunately, opening this black box produces multiple new black boxes. For example, what might really drive the mobilization and framing processes (for some insights see, e.g., Ruotsalainen, 2013). Teasing out such micro-level interactions might shift the focus from the macro/meso-level theories more towards micro-level organizational behavior (Felin et al. 2015). Therefore, future researchers should potentially adopt even longer timelines in their studies but also multiple points of field access for more in-depth and longitudinal approaches to data collection, potentially using ethnographic methods such as non-participant observations. Of course, such demand is tough in the context of a hectic academic life with multiple liabilities and tasks but potentially worthwhile to provide even more nuanced description of communicative patterns (see Cornelissen et al., 2015) through which multiple

diverse actors make sense of the problems and negotiate the new frames and according the formal and informal rules for collective action.

One clear limitation relates to the examined phenomenon of collective action in inter-organizational relationships and relates to both conceptual treatment of and empirical inquiry about the phenomenon. In other words, does collective action occur between organizations or between individuals as representatives of their organizations? Traditionally, inter-organizational relationships are examined as meso- or organizational-level phenomena, which perhaps stems from the historical focus on contracts between two autonomous organizations having status as legal actors of their own right (Marchington, & Vincent, 2004). However, such a view might not fully capture all the institutional and organizational forces such as individual level cognitive processes and preferences, power relations, and personal relationships affecting the collaboration or collective action among multiple parties (*ibid.*).

My initial approach was to focus purely on the organizational level but as the findings of this study indicate, individuals and their personal relationships, characteristics, and experiences played a crucial role as contextual factors resulting conditioned action. This clearly forms a need for further empirical inquiry and theorizing about the role of different levels in such conditioned action and negotiations preceding it. For example, analyzing potential goal conflicts not just between organizations, but between individuals as well as individuals and organizations (either their own or the others) might prove out to be fruitful. Such multi-level models including institutional-, organizational-, and individual-level analysis that capture, for example, an enhanced understanding of managerial cognition and resulting action are still scarce in the organizational theory (Hallett & Ventresca, 2015; Suddaby, 2010) and their successful development might once again need spanning the conceptual boundaries across multiple theoretical domains from sociology and psychology to political science and economics. Interestingly, such multi-disciplinary research on collective action requires collective action and formation of a shared research agenda among researchers sharing different institutional backgrounds as well as going beyond scientific imperialism, meaning explaining a phenomenon only with theories and tools used within one discipline (see e.g. Dupré, 1996; Naderpajouh et al., 2018). Perhaps some learnings of this study could be used to overcome these challenges.

What finally comes to the overarching topic of the whole dissertation (the compiling part plus the individual articles), which is the inter-organizational value creation, it was clear upfront that my focus has been especially on “value creation” rather than “value capture, distribution or appropriation”. Indeed, I see that when value creation is seen as a collective action problem, it is already valuable that actors can strike a deal and engage into collective action. Naturally, in real-life scenarios the question rises that who will get the biggest share of the (monetary) value created. As discussed in the original articles and highlighted in the conceptual model developed here it seemed like the actors participating in each case were also able to gain something out of the collective

efforts, which kept sustaining the collective action system. However, value appropriation between various stakeholders is still an open topic (see e.g. García-Castro, & Aguilera, 2015) to which this dissertation provides rather little contribution. Therefore, future studies could take a more profound look at how valuable diverse actors actually perceive collective actions.

Overall, collective action among multiple self-interested actors has fascinated researchers throughout the ages. Ever since Mancur Olson's (1965) and Garrett Hardin's (1968) initial formulations of collective action and tragedy of the commons (and those many before them), a plethora of papers about the topic has appeared, utilizing different theoretical lenses, from economics to ecology (and all in between) and an even greater variety of contexts. In these terms, this dissertation rather scratched the surface of this long research tradition by emphasizing the role of collective formation of social structures as governance mechanisms for collective action for inter-organizational value creation. Within this context, some might call the attempts of this thesis rather modest and incremental, but I dare to state that these attempts and many more are still required to fully understand the rather basic but complicated social phenomenon, why some actors under seemingly similar kinds of conditions decide to cooperate while others defect. Clearly, we are not all just here to satisfy our self-interested goals. Thus, perhaps the conditions, actors and outcomes, or the utility function in economist's terms, were not so similar after all. Without doubts, explaining and understanding their varied and constantly changing nature opens new questions for another 50 years.

References

- Aarikka-Stenroos, L., Jaakkola, E., Harrison, D., & Mäkitalo-Keinonen, T. (2017). How to manage innovation processes in extensive networks: A longitudinal study. *Industrial Marketing Management*, 67, 88-105.
- Adger, W. N. (2003). Social capital, collective action, and adaptation to climate change. *Economic Geography*, 79(4), 387-403.
- Agrawal, A. (2001). Common property institutions and sustainable governance of resources. *World Development*, 29(10), 1649-1672.
- Ahrne, G., & Brunsson, N. (2005). Organizations and meta-organizations. *Scandinavian Journal of Management*, 21(4), 429-449.
- Ansari, S., Wijen, F., & Gray, B. (2013). Constructing a climate change logic: An institutional perspective on the "tragedy of the commons". *Organization Science*, 24(4), 1014-1040.
- Archer, M. S. (2010). Routine, reflexivity, and realism. *Sociological Theory*, 28(3), 272-303.
- Archer, M. S., & Archer, M. S. (1995). *Realist social theory: The morphogenetic approach*. Cambridge, UK: Cambridge University Press.
- Artto, K., Ahola, T., & Vartiainen, V. (2016). From the front end of projects to the back end of operations: Managing projects for value creation throughout the system lifecycle. *International Journal of Project Management*, 34(2), 258-270.
- Austin, J. E., & Seitanidi, M. M. (2012). Collaborative value creation: A review of partnering between nonprofits and businesses: Part I. Value creation spectrum and collaboration stages. *Nonprofit and Voluntary Sector Quarterly*, 41(5), 726-758.
- Axelrod, R. (1986). An evolutionary approach to norms. *American Political Science Review*, 80(4), 1095-1111.
- Balogun, J., Jacobs, C., Jarzabkowski, P., Mantere, S., Vaara, E., (2014). Placing strategy discourse in context: sociomateriality, sensemaking, and power. *Journal of Management Studies* 51(2), 175-201.
- Barringer, B. R., & Harrison, J. S. (2000). Walking a tightrope: Creating value through interorganizational relationships. *Journal of Management*, 26(3), 367-403.
- Battilana, J. (2006). Agency and institutions: The enabling role of individuals' social position. *Organization*, 13(5), 653-676.
- Battilana, J., Besharov, M., & Mitzinneck, B. (2017). Hybrid organizing: A review and roadmap for future research. In R. Greenwood, C. Oliver, T. Lawrence, & R. Meyer (Eds.), *The SAGE Handbook of Organizational Institutionalism* (2nd edition). 128-162. London: SAGE Publications.
- Battilana, J., Leca, B., & Boxenbaum, E. (2009). How Actors Change Institutions: Towards a Theory of Institutional Entrepreneurship. *The Academy of Management Annals*, 3(1), 65-107.

- Bechky, B. A. (2011). Making organizational theory work: Institutions, occupations, and negotiated orders. *Organization Science*, 22(5), 1157-1167.
- Benford, R. D., & Snow, D. A. (2000). Framing processes and social movements: An overview and assessment. *Annual Review of Sociology*, 26(1), 611-639.
- Benítez-Ávila, C., Hartmann, A., Dewulf, G., & Henseler, J. (2018). Interplay of relational and contractual governance in public-private partnerships: The mediating role of relational norms, trust and partners' contribution. *International Journal of Project Management*, 36(3), 429-443.
- Berger, P. L., Luckmann T. (1966). *The social construction of reality: A treatise in the sociology of knowledge*, Garden City, NY: Anchor Books.
- Bhaskar, R.A., (1975). *A realist theory of science*. London: Verso.
- Bishop, S., & Waring, J. (2016). Becoming hybrid: The negotiated order on the front line of public-private partnerships. *Human Relations*, 69(10), 1937-1958.
- Boxenbaum, E., & Rouleau, L. (2011). New knowledge products as bricolage: Metaphors and scripts in organizational theory. *Academy of Management Review*, 36(2), 272-296.
- Brito, D. L., & Oakland, W. H. (1980). On the monopolistic provision of excludable public goods. *American Economic Review*, 70(4), 691-704.
- Clarysse, B., Wright, M., Bruneel, J., & Mahajan, A. (2014). Creating value in ecosystems: Crossing the chasm between knowledge and business ecosystems. *Research policy*, 43(7), 1164-1176.
- Coleman, J. S. (2009). *Individual interests and collective action: Studies in rationality and social change*. Cambridge, UK: Cambridge University Press.
- Commons, J. R. (1931). Institutional economics. *American Economic Review*, 648-6
- Cornelissen, J. P., Durand, R., Fiss, P. C., Lammers, J. C., & Vaara, E. (2015). Putting communication front and center in institutional theory and analysis. *Academy of Management Review*, 40(1), 10-27.
- Crane, A., Palazzo, G., Spence, L. J., & Matten, D. (2014). Contesting the value of "creating shared value". *California Management Review*, 56(2), 130-153.
- Crawford, S. E., & Ostrom, E. (1995). A grammar of institutions. *American Political Science Review*, 89(3), 582-600.
- Dawes, R. M. (1980). Social dilemmas. *Annual Review of Psychology*, 31(1), 169-193.
- Dacin, T., Goodstein, J., & Scott, W. R. (2002). Institutional theory and institutional change: Introduction to the special research forum. *Academy of Management Journal*, 45(1), 45-56.
- Danermark, B., Ekström, M., Jakobsen, L., & Karlsson, J. C. (1997). Generalization, scientific inference and models for an explanatory social science. In B. Danermark, M. Ekström, L. Jakobsen, & J. C. Karlsson (Eds.), *Explaining Society: Critical realism in the social sciences*. 73-114. London: Routledge.
- Das, T. K., & Teng, B. S. (2000). A resource-based theory of strategic alliances. *Journal of Management*, 26(1), 31-61.
- Delbridge, R., & Edwards, T. (2013). Inhabiting institutions: Critical realist refinements to understanding institutional complexity and change. *Organization Studies*, 34(7), 927-947.
- Dhanaraj, C., & Parkhe, A. (2006). Orchestrating innovation networks. *Academy of Management Review*, 31(3), 659-669.
- Dietz, T., Ostrom, E., & Stern, P. C. (2003). The struggle to govern the commons. *Science*, 302(5652), 1907-1912.
- DiMaggio, P. (1988). Interest and agency in institutional theory. In L. Zucker (Eds.), *Institutional patterns and culture* (pp. 3-22). Cambridge, MA: Ballinger Publishing Company.

- DiMaggio, P.J., & Powell, W.W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review* 48, 147–160.
- Dupré, J. (1996). Against scientific imperialism. *Proceedings of the 1994 Biennial Meeting of the Philosophy of Science Association*, Edited by: Forbes, M., Hull, D. and Burian, R. M. Vol. 2, 374–381. East Lansing, MI: Philosophy of Science Association.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532–550.
- Elder-Vass, D. (2010). *The causal power of social structures: Emergence, structure and agency*. Cambridge, UK: Cambridge University Press.
- Emirbayer, M., & Mische, A. (1998). What is agency? *American Journal of Sociology*, 103(4), 962–1023.
- Erkama, N., & Vaara, E. (2010). Struggles over legitimacy in global organizational restructuring: A rhetorical perspective on legitimation strategies and dynamics in a shutdown case. *Organization Studies*, 31(7), 813–839.
- Esping-Andersen, G. (1990). *The Three Worlds of Welfare Capitalism*. Cambridge, UK: Polity Press.
- Felin, T., Foss, N. J., & Ployhart, R. E. (2015). The microfoundations movement in strategy and organization theory. *The Academy of Management Annals*, 9(1), 575–632.
- Fine, G. A. (1984). Negotiated orders and organizational cultures. *Annual Review of Sociology*, 10(1), 239–262.
- Fleetwood, S. (2005). Ontology in organization and management studies: A critical realist perspective. *Organization*, 12(2), 197–222.
- Fligstein, N. (1997). Social skill and institutional theory. *American Behavioral Scientist*, 40(4), 397–405.
- Fligstein, N., & McAdam, D. (2011). Toward a general theory of strategic action fields. *Sociological Theory*, 29(1), 1–26.
- Fligstein, N., & McAdam, D. (2012). *A Theory of Fields*. New York: Oxford University Press.
- Foss, N. J. (2003). Selective intervention and internal hybrids: Interpreting and learning from the rise and decline of the Oticon spaghetti organization. *Organization Science*, 14(3), 331–349.
- Frank, R. H., Gilovich, T., & Regan, D. T. (1993). The evolution of one-shot cooperation: An experiment. *Ethology and Sociobiology*, 14(4), 247–256.
- Friedland, R., & Alford, R.R. (1991). Bringing society back: Symbols, practices, and institutional contradictions. In W. Powell & P. DiMaggio (Eds.), *The New Institutionalism in Organizational Analysis*. 232–266. Chicago: University of Chicago Press.
- Garcia-Castro, R., & Aguilera, R. V. (2015). Incremental value creation and appropriation in a world with multiple stakeholders. *Strategic Management Journal*, 36(1), 137–147.
- Garud, R., Hardy, C., & Maguire, S. (2007). Institutional entrepreneurship as embedded agency: An introduction to the special issue. *Organization Studies* 28(7), 957–969.
- George, G., Howard-Grenville, J., Joshi, A., & Tihanyi, L. (2016). Understanding and tackling societal grand challenges through management research. *Academy of Management Journal*, 59(6), 1880–1895.

- Gersick, C. J. (1991). Revolutionary change theories: A multilevel exploration of the punctuated equilibrium paradigm. *Academy of Management Review*, 16(1), 10-36.
- Giddens, A. (1984) *The Constitution of Society. Outline of the Theory of Structuration*. Berkeley, CA: University of California Press.
- Gil, N. (2017). A collective-action perspective on the planning of megaprojects. In B. Flyvbjerg (Eds.) *The Oxford Handbook of Megaproject Management*. 259-286. Oxford, UK: Oxford University Press.
- Gil, N., & Pinto, J. K. (2018). Polycentric organizing and performance: A contingency model and evidence from megaproject planning in the UK. *Research Policy*, 47(4), 717-734.
- Granqvist, N., & Gustafsson, R. (2016). Temporal institutional work. *Academy of Management Journal*, 59(3), 1009-1035.
- Greenwood, R., Oliver, C., Sahlin, K. & Suddaby, R. (2008). Introduction. In R. Greenwood, C. Oliver & R. Suddaby (Eds.), *The SAGE Handbook of Organizational Institutionalism*. 1-46. London: SAGE Publication.
- Greenwood, R., Raynard, M., Kodeih, F., Micelotta, E. R., & Lounsbury, M. (2011). Institutional Complexity and Organizational Responses. *The Academy of Management Annals*, 5(1), 317-371.
- Greenwood, R., Suddaby, R. (2006). Institutional Entrepreneurship in Mature Fields: The Big Five Accounting Firms. *Administrative Science Quarterly*, 49(1), 27-48.
- Gulati, R., Puranam, P., & Tushman, M. (2012). Meta-organization design: Rethinking design in interorganizational and community contexts. *Strategic Management Journal*, 33(6), 571-586.
- Gulati, R., & Singh, H. (1998). The architecture of cooperation: Managing coordination costs and appropriation concerns in strategic alliances. *Administrative Science Quarterly*, 43(4), 781-814.
- Haedicke, M. A., & Hallett, T. (2015). How to look two ways at once: Research Strategies for Inhabited Institutionalism. In K. Elsbach, R. Kramer (Eds.), *Handbook of Qualitative Organizational Research: Innovative Pathways and Methods*. New York: Routledge.
- Hallett, T., & Ventresca, M. J. (2006). Inhabited institutions: Social interactions and organizational forms in Gouldner's Patterns of Industrial Bureaucracy. *Theory and Society*, 35(2), 213-236.
- Hardin, G. (1968). The Tragedy of the Commons. *Science*, 162:1243-1248.
- Hardy, C., & Maguire, S. (2010). Discourse, field-configuring events, and change in organizations and institutional fields: Narratives of DDT and the Stockholm Convention. *Academy of Management Journal*, 53(6), 1365-1392.
- Hardy, C., & Maguire, S. (2017). Institutional entrepreneurship and change in fields. In R. Greenwood, C. Oliver, T. Lawrence and R. Meyer (Eds.), *SAGE Handbook of Organizational Institutionalism* (2nd edition). 261-280. London: SAGE Publishing.
- Hargrave, T. J., & Van de Ven, A. H. (2006). A collective action model of institutional innovation. *Academy of Management Review*, 31(4), 864-888.
- Hellgren, B., & Stjernberg, T. (1995). Design and implementation in major investments—a project network approach. *Scandinavian Journal of Management*, 11(4), 377-394.
- Hinterhuber, A. (2002). Value chain orchestration in action and the case of the global agrochemical industry. *Long Range Planning*, 35(6), 615-635.

- Holm, P. (1995). The dynamics of institutionalization: Transformation processes in Norwegian fisheries. *Administrative Science Quarterly*, 40(3), 398-422.
- Jensen, M. C., & Meckling, W. H. (1994). The nature of man. *Journal of Applied Corporate Finance*, 7(2), 4-19.
- Jick, T. D. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative Science Quarterly*, 24(4), 602-611.
- Järvensivu, T., & Möller, K. (2009). Metatheory of network management: A contingency perspective. *Industrial Marketing Management*, 38(6), 654-661.
- Kaplan, S. (2008). Framing contests: Strategy making under uncertainty. *Organization Science*, 19(5), 729-752.
- Kemp, S., & Holmwood, J. (2003). Realism, regularity and social explanation. *Journal for the Theory of Social Behaviour*, 33(2), 165-187.
- Ketokivi, M., & Choi, T. (2014). Renaissance of case research as a scientific method. *Journal of Operations Management*, 32(5), 232-240.
- Kim, J., & Mahoney, J. T. (2005). Property rights theory, transaction costs theory, and agency theory: an organizational economics approach to strategic management. *Managerial and Decision Economics*, 26(4), 223-242.
- Kostova, T., & Zaheer, S. (1999). Organizational legitimacy under conditions of complexity: The case of the multinational enterprise. *Academy of Management Review*, 24(1), 64-81.
- Kreps, D. M., Milgrom, P., Roberts, J., & Wilson, R. (1982). Rational cooperation in the finitely repeated prisoners' dilemma. *Journal of Economic Theory*, 27(2), 245-252.
- Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management Review*, 24(4), 691-710.
- Langley, A. N. N., Smallman, C., Tsoukas, H., & Van de Ven, A. H. (2013). Process studies of change in organization and management: Unveiling temporality, activity, and flow. *Academy of Management Journal*, 56(1), 1-13.
- Lawrence, T. B., Hardy, C., & Phillips, N. (2002). Institutional effects of interorganizational collaboration: The emergence of proto-institutions. *Academy of Management Journal*, 45(1), 281-290.
- Lawrence, T. B., Leca, B., & Zilber, T. B. (2013). Institutional work: Current research, new directions and overlooked issues. *Organization Studies*, 34(8), 1023-1033.
- Lawson, T. (1997). *Economics and reality*. Oxon, UK: Routledge.
- Le Pennec, M., & Raufflet, E. (2018). Value creation in inter-organizational collaboration: An empirical study. *Journal of Business Ethics*, 148(4), 817-834.
- Leblebici, H., Salancik, G. R., Copay, A., & King, T. (1991). Institutional change and the transformation of interorganizational fields: An organizational history of the US radio broadcasting industry. *Administrative Science Quarterly*, 333-363.
- Leca, B., & Naccache, P. (2006). A critical realist approach to institutional entrepreneurship. *Organization*, 13(5), 627-651.
- Libecap, G. D., & Wiggins, S. N. (1984). Contractual responses to the common pool: Prorationing of crude oil production. *American Economic Review*, 74(1), 87-98.
- Lounsbury, M. (2007). A tale of two cities: Competing logics and practice variation in the professionalizing of mutual funds. *Academy of Management Journal*, 50(2), 289-307.
- Lundin, R., Arvidsson, N., Brady, T., Eksted, E., Midler, C., & Sydow, J. (2015). *Managing and Working in Project Society – Institutional Challenges of Temporary Organizations*. Cambridge, UK: Cambridge University Press.
- Lundin, R. A., & Söderholm, A. (1995). A theory of the temporary organization. *Scandinavian Journal of Management*, 11(4), 437-455.

- Marchington, M., & Vincent, S. (2004). Analysing the influence of institutional, organizational and interpersonal forces in shaping inter-organizational relations. *Journal of Management Studies*, 41(6), 1029-1056.
- Mantere, S., & Ketokivi, M. (2013). Reasoning in organization science. *Academy of Management Review*, 38(1), 70-89.
- Matinheikki, J., Aaltonen, K., & Walker, D. (2019). Politics, public servants, and profits: Institutional complexity and temporary hybridization in a public infrastructure alliance project. *International Journal of Project Management*, 37(2), 298-317.
- Matinheikki, J., Artto, K., Peltokorpi, A., & Rajala, R. (2016). Managing inter-organizational networks for value creation in the front-end of projects. *International Journal of Project Management*, 34(7), 1226-1241.
- Matinheikki, J., Pesonen, T., Artto, K., & Peltokorpi, A. (2017). New value creation in business networks: The role of collective action in constructing system-level goals. *Industrial Marketing Management*, 67, 122-133.
- Matinheikki, J., Rajala, R., & Peltokorpi, A. (2017). From the profit of one toward benefiting many—Crafting a vision of shared value creation. *Journal of Cleaner Production*, 162, 83-93.
- McAdam, D. (2017). Social movement theory and the prospects for climate change activism in the United States. *Annual Review of Political Science*, 20, 189-208.
- Meyer, A. D., Brooks, G. R., & Goes, J. B. (1990). Environmental jolts and industry revolutions: Organizational responses to discontinuous change. *Strategic Management Journal*, 93-110.
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 340-363.
- Micelotta, E., Lounsbury, M., & Greenwood, R. (2017). Pathways of Institutional Change: An Integrative Review and Research Agenda. *Journal of Management*, 43(6), 1885-1910.
- Morris, P. W. (2013). *Reconstructing project management*. West Sussex, UK: John Wiley & Sons.
- Möller, K. (2010). Sense-making and agenda construction in emerging business networks—How to direct radical innovation. *Industrial Marketing Management*, 39(3), 361-371.
- Möller, K., & Halinen, A. (2017). Managing business and innovation networks—from strategic nets to business fields and ecosystems. *Industrial Marketing Management*, 67, 5-22.
- Möller, K., & Rajala, A. (2007). Rise of strategic nets—New modes of value creation. *Industrial marketing management*, 36(7), 895-908.
- Naderpajouh, N., David, J. Y., Aldrich, D. P., Linkov, I., & Matinheikki, J. (2018). Engineering meets institutions: an interdisciplinary approach to the management of resilience. *Environment Systems and Decisions*, 38(3), 306-317.
- Nash, J. (1951). Non-cooperative games. *Annals of Mathematics*, 286-295.
- Neale, M., Tenbrunsel, A., Galvin, T. & Bazerman, M. (2006). A decision perspective on organizations: social cognition, behavioural decision theory and the psychological links to micro- and macro-organizational behaviour. In S. R. Clegg, C. Hardy & T. B. Lawrence (Eds.), *The SAGE handbook of organization studies*. 485-519. London: SAGE Publications Ltd.
- North, D. C. (1991). Institutions. *Journal of Economic Perspectives*, 5(1), 97-112.
- Ocasio, W. (1997). Towards an attention-based view of the firm. *Strategic Management Journal*, 18(S1), 187-206.

- Ocasio, W., Thornton, P. H., & Lounsbury, M. (2017). Advances to the Institutional Logics Perspective. In R. Greenwood, C. Oliver, T. Lawrence and R. Meyer (Eds.), *Sage Handbook of Organizational Institutionalism* (2nd edition). 509-531. London: SAGE Publishing.
- Olson, M. (1965). *The logic of collective action*. Cambridge, MA: Harvard University Press.
- Orbell, J. M., & Dawes, R. M. (1993). Social welfare, cooperators' advantage, and the option of not playing the game. *American Sociological Review*, 787-800.
- Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. Cambridge, UK: Cambridge University Press.
- Ostrom, E. (1998). A behavioral approach to the rational choice theory of collective action: Presidential address, American Political Science Association, 1997. *American Political Science Review*, 92(1), 1-22.
- Ostrom, E. (2000). Collective action and the evolution of social norms. *Journal of Economic Perspectives*, 14(3), 137-158.
- Ostrom, E. (2005). *Understanding institutional diversity*. Princeton, NJ: Princeton University Press.
- Ostrom E. (2008). *Polycentric systems as one approach for solving collective-action problems*. Social Science Research Network. Available at: SSRN: <http://ssrn.com/abstract=1304697>.
- Ostrom, E., & Ahn, T. K. (2009). The meaning of social capital and its link to collective action. In G. Svendsen and G. Svendsen (Eds.). *Handbook of social capital: The troika of sociology, political science and economics*, 17-35. Northampton, MA: Edward Elgar.
- Ostrom, E., Burger, J., Field, C. B., Norgaard, R. B., & Policansky, D. (1999). Revisiting the commons: local lessons, global challenges. *Science*, 284(5412), 278-282.
- Parkhe, A. (1993). Strategic alliance structuring: A game theoretic and transaction cost examination of interfirm cooperation. *Academy of Management Journal*, 36(4), 794-829.
- Phillips, N., Lawrence, T. B., & Hardy, C. (2000). Inter-organizational collaboration and the dynamics of institutional fields. *Journal of Management Studies*, 37(1).
- Porpora, D. V. (2013). Morphogenesis and social change. In M. S. Archer (Ed.), *Social morphogenesis*. 25-37. New York: Springer Dordrecht.
- Porter, M. E., & Kramer, M. R. (2011). The big idea: Creating shared value. *Harvard Business Review*, 89(1), 62-77.
- Powell, W. W. (1990). Neither market nor hierarchy: Network forms of organization. *Research in Organizational Behavior* 12: 295-336
- Provan, K. G., & Kenis, P. (2008). Modes of network governance: Structure, management, and effectiveness. *Journal of Public Administration Research and Theory*, 18(2), 229-252.
- Rao, H., & Greve, H. R. (2018). Disasters and community resilience: Spanish flu and the formation of retail cooperatives in Norway. *Academy of Management Journal*, 61(1), 5-25.
- Rao, H., Monin, P., & Durand, R. (2003). Institutional change in Toque Ville: Nouvelle cuisine as an identity movement in French gastronomy. *American Journal of Sociology*, 108(4), 795-843.
- Rao, H., Morrill, C., & Zald, M. N. (2000). Power plays: How social movements and collective action create new organizational forms. *Research in Organizational Behavior*, 22, 237-281.
- Raynard, M. (2016). Deconstructing complexity: Configurations of institutional complexity and structural hybridity. *Strategic Organization*, 14(4), 310-335.

- Reay, T., & Hinings, C. R. (2009). Managing the rivalry of competing institutional logics. *Organization Studies*, 30(6), 629-652.
- Reed, M. I. (1997). In praise of duality and dualism: rethinking agency and structure in organizational analysis. *Organization Studies*, 18(1), 21-42.
- Ring, P. S., & Van de Ven, A. H. (1994). Developmental processes of cooperative inter-organizational relationships. *Academy of Management Review*, 19(1), 90-118.
- Ritvala, T., & Salmi, A. (2010). Value-based network mobilization: A case study of modern environmental networkers. *Industrial Marketing Management*, 39(6), 898-907.
- Romanelli, E., & Tushman, M. L. (1994). Organizational transformation as punctuated equilibrium: An empirical test. *Academy of Management Journal*, 37(5), 1141-1166.
- Rule, P., & John, V. M. (2015). A necessary dialogue: Theory in case study research. *International Journal of Qualitative Methods*, 14(4), 1-11.
- Ruuska, I., Ahola, T., Artto, K., Locatelli, G., & Mancini, M. (2011). A new governance approach for multi-firm projects: Lessons from Olkiluoto 3 and Flamanville 3 nuclear power plant projects. *International Journal of Project Management*, 29(6), 647-660.
- Ruotsalainen, R. (2013). *The micro-to-macro problem: The Generation of Mobilizing Frames through idea development conversations*. Doctoral Dissertation. Aalto University, School of Science. 193 p.
- Sarker, S., Sarker, S., & Sidorova, A. (2006). Understanding business process change failure: An actor-network perspective. *Journal of Management Information Systems*, 23(1), 51-86.
- Sayer, A. (2000). *Realism and social science*. Thousand Oaks: SAGE Publishing.
- Schildt, H., & Perkmann, M. (2017). Organizational settlements: theorizing how organizations respond to institutional complexity. *Journal of Management Inquiry*, 26(2), 139-145.
- Scott, W. R. (2001) *Institutions and Organizations* (2nd ed.). Thousand Oaks: SAGE Publishing.
- Scott, W. R. (2000). *Institutional change and healthcare organizations: From professional dominance to managed care*. Chicago: University of Chicago Press.
- Scott, W. R. (2011). Introduction: studying global projects. In W.R. Scott, R. E. Levitt, R. J. Orr (Eds.), *Global Projects: Institutional and Political Challenges*. 1-13. New York: Cambridge University Press.
- Seo, M. G., & Creed, W. D. (2002). Institutional contradictions, praxis, and institutional change: A dialectical perspective. *Academy of Management Review*, 27(2), 222-247.
- Simon, H. A. (1955). A behavioral model of rational choice. *The Quarterly Journal of Economics*, 69(1), 99-118.
- Strauss, A. (1982). Interorganizational negotiation. *Urban Life*, 11(3), 350-367.
- Strauss, A., Schatzman, L., Ehrlich, D., Bucher, R., Sabshin, M. (1963). The hospital and its negotiated order. In E. Freidson (Ed.), *The Hospital in Modern Society*. pp. 147- 69. New York: Free.
- Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review*, 20(3), 571-610.
- Suddaby, R. (2010). Challenges for institutional theory. *Journal of Management Inquiry*, 19(1), 14-20.
- Suddaby, R., & Greenwood, R. (2005). Rhetorical strategies of legitimacy. *Administrative Science Quarterly*, 50(1), 35-67.

- Suddaby, R., Hardy, C., & Huy, Q. N. (2011). Introduction to special topic forum: where are the new theories of organization? *Academy of Management Review* 36(2), 236-246.
- Thompson, N. A., Herrmann, A. M., & Hekkert, M. P. (2015). How sustainable entrepreneurs engage in institutional change: insights from biomass torrefaction in the Netherlands. *Journal of Cleaner Production*, 106, 608-618.
- Thornton, P. H., & Ocasio, W. (1999). Institutional logics and the historical contingency of power in organizations: Executive succession in the higher education publishing industry, 1958-1990. *American Journal of Sociology*, 105(3), 801-843.
- Thornton, P. H., Ocasio, W., & Lounsbury, M. (2012). *The institutional logics perspective: A new approach to culture, structure, and process*. New York: Oxford University Press.
- Tsai, W., & Ghoshal, S. (1998). Social capital and value creation: The role of intrafirm networks. *Academy of Management Journal*, 41(4), 464-476.
- Tukiainen, S., & Granqvist, N. (2016). Temporary organizing and institutional change. *Organization Studies*, 37(12), 1819-1840.
- Tynkynen, L. K., Keskimäki, I., & Lehto, J. (2013). Purchaser-provider splits in health care—The case of Finland. *Health Policy*, 111(3), 221-225.
- Uzzi, B. (1997). Social structure and competition in interfirm networks: The paradox of embeddedness. *Administrative Science Quarterly*, 42(1), 35-67.
- Vaara, E. (2014). Struggles over legitimacy in the Eurozone crisis: Discursive legitimation strategies and their ideological underpinnings. *Discourse & Society*, 25(4), 500-518.
- Van de Ven, A. H. (1976). On the nature, formation, and maintenance of relations among organizations. *Academy of Management Review*, 1(4), 24-36.
- Van de Ven, A. H., & Poole, M. S. (2005). Alternative approaches for studying organizational change. *Organization Studies*, 26(9), 1377-1404.
- Vermeulen, P., Zietsma, C., Greenwood, R., & Langley, A. (2016). Strategic responses to institutional complexity. *Strategic Organization*, 14(4), 277-286.
- Von Bertalanffy, L. (1968). *General system theory*. New York: George Braziller Inc.
- Walker, D., & Lloyd-Walker, B. (2015). *Collaborative project procurement arrangements*. Newtown Square, MA: Project Management Institute Inc.
- Walsh, J. P. (1995). Managerial and organizational cognition: Notes from a trip down memory lane. *Organization Science*, 6(3), 280-321.
- Wasko, M. M., Faraj, S., & Teigland, R. (2004). Collective action and knowledge contribution in electronic networks of practice. *Journal of the Association for Information Systems*, 5(11), 15.
- Williamson, O. E. (1985). Reflections on the new institutional economics. *Journal of Institutional and Theoretical Economics*, (H. 1), 187-195.
- Wooten, M., & Hoffman, A. J. (2008). Organizational fields: Past, present and future. In R. Greenwood, C. Oliver & R. Suddaby (Eds.), *The SAGE handbook of organizational institutionalism*. 131-147. London: SAGE Publication
- Yin, R. K. (1994). *Case study research and applications: Design and methods*. Thousand Oaks, CA: SAGE Publishing.
- Zietsma, C., & Lawrence, T. B. (2010). Institutional work in the transformation of an organizational field: The interplay of boundary work and practice work. *Administrative Science Quarterly*, 55(2), 189-221.

Appendix I: Process descriptions

The following three pages will contain the process descriptions constructed from the narratives of the three cases presented in the four original articles. The process descriptions consist of three separate elements according to the analytical framework of the study (see Figure 1): actors, events and structure. Events form the key empirical events that were identified in the empirical narratives constructed according to our informants' descriptions as well as triangulation through secondary data. The element *actor* describes the most prominent actors in each case and are then linked to each event in parentheses. The term *structure* describes the prevailing social structure and potential changes when the events unfolded. I aimed to describe the institutional structure, which describes higher-level institutional norms (e.g., national legislation, beliefs, standards and practices), where the actors were originally embedded when they started to formulate a system-level goal, which then formed premises for localized governance structure (e.g., local rules, trust, shared identity) determining legitimate behavior within each collective action system. Thus, these different levels form a nested system of conditioned action.

One should note that I have not causally linked events to one another or to structure since declaring such causality might be misleading. Instead, the events and structure are presented just in chronological order, meaning that an event simply temporally precedes another. In a similar vein, I have placed the localized governance structure in the end of each chronological timeline. However, the formation of the system-level goal and localized structures clearly occurred in tandem with certain events. Still, according to the principle of analytical dualism (Delbridge & Edwards, 2013) events (i.e., observed action) and structure should be treated as separate entities because contextual conditions (e.g., actors' characteristics) will condition action, allowing, for example, changes in structure. Thus, it becomes impossible to identify a clear time point when a structure is formed, since it seems to be in a constant flux, producing as well as being changed by the action.

Overall, these process descriptions are simplified illustrations of messy empirical events, which we observed. However, they formed an important basis for the construction of the conceptual model (Figure 3), which is explained in detail in Section 5 of this dissertation.

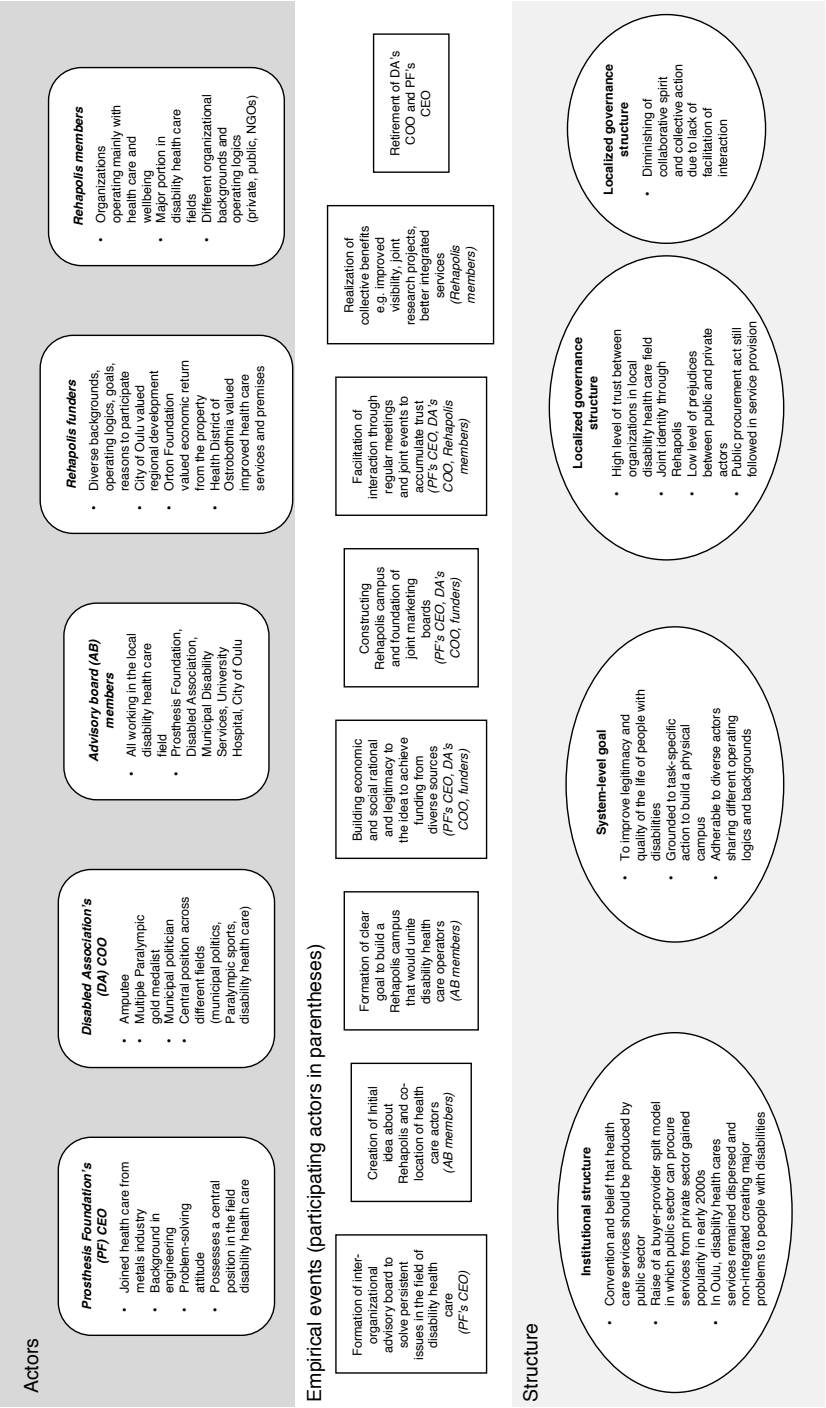


Figure A1. Process description of the Rehapolis case

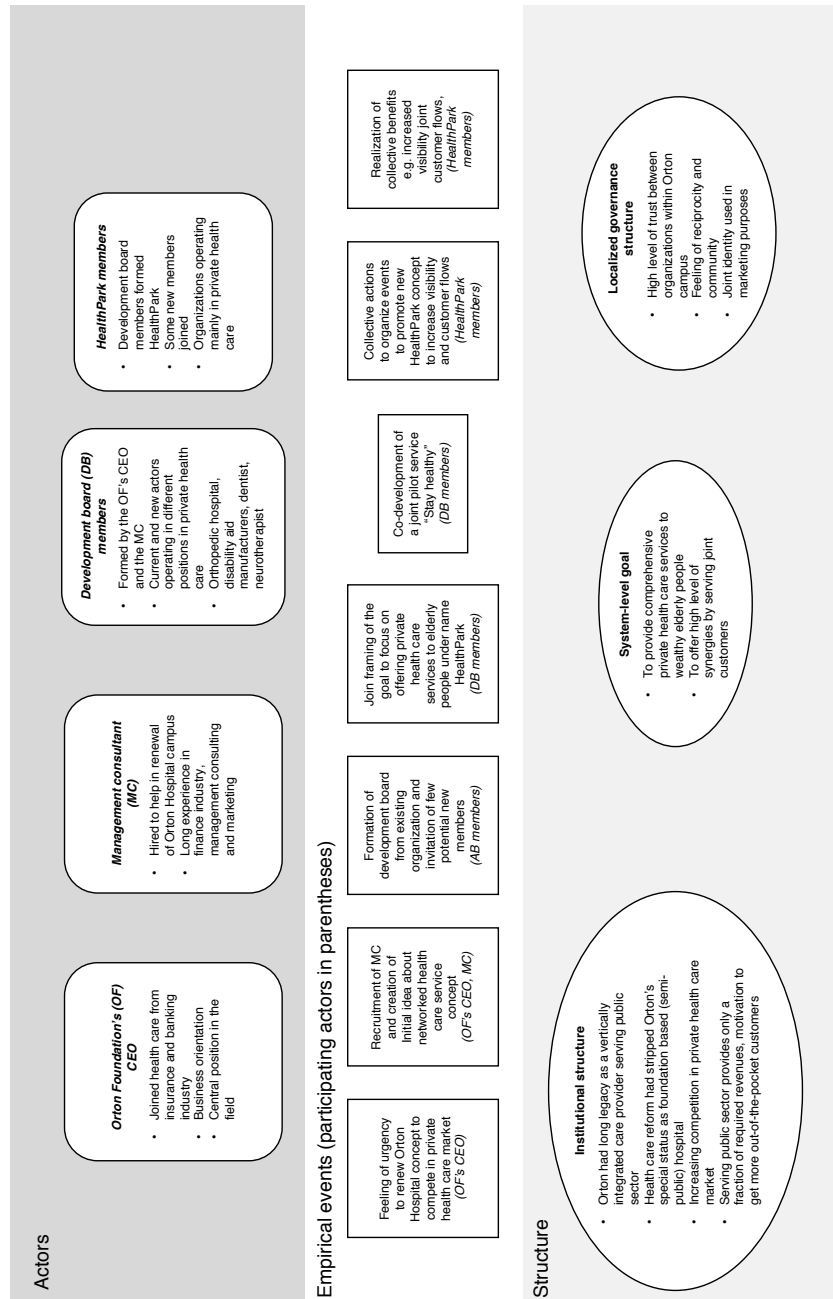


Figure A2 Process description of the HealthPark case

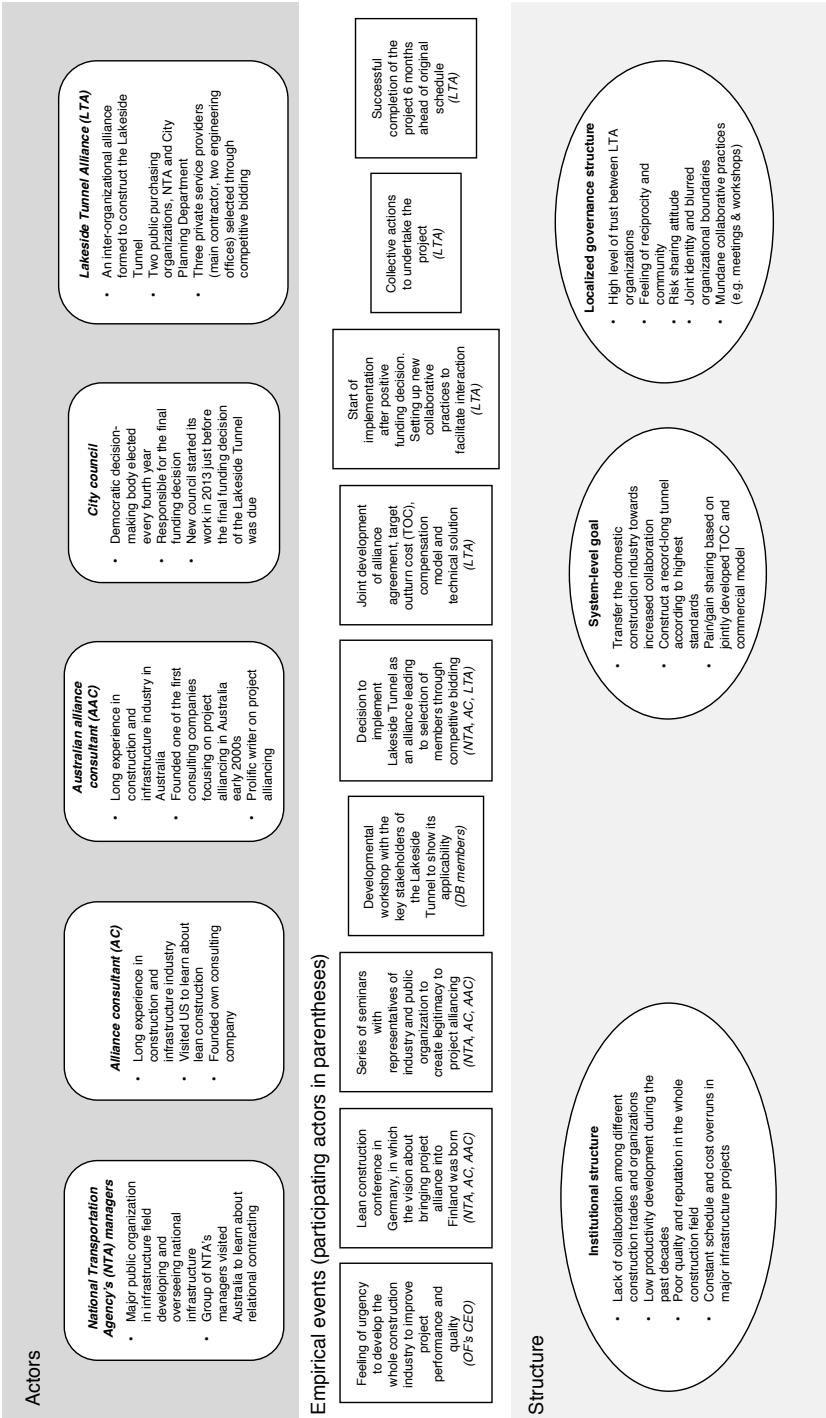


Figure A3. Process description of the Lakeside Tunnel case



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