



Dynamics of innovation network practices in tourism

Olga Høegh-Guldberg
Doctoral dissertation
Philosophiae Doctor (PhD)

Dynamics of innovation network practices in tourism

Olga Høegh-Guldberg
Doctoral thesis submitted
for the degree of PhD

Inland Norway University of Applied Sciences - INN University

© **Olga Høegh-Guldberg**

Doctoral dissertation submitted to Inland Norway University of Applied Sciences - INN University

ISSN: 1893-8337

ISBN: 978-82-7184-418-9 (Printed version)

ISBN: 978-82-7184-419-6 (Published online)

All rights reserved. No part of this publication may be reproduced or transmitted, in any form or by any means, without permission.

inn.no

Photo: Olga Høegh-Guldberg

Layout: Gro Vasbotten/Inland Norway University of Applied Sciences

Printed in Norway by Flisa Trykkeri A/S

ACKNOWLEDGEMENTS

“Look back to where you have been, for a clue to where you are going”

- proverb says -

The Ph.D. is an important milestone in one's life. It is a life of its own that enriches one with new knowledge and experiences and allows one to meet fantastic, likeminded people. It opens new doors and builds foundation for the future. As I approach the end of this stage of my life, it is important not only to reflect on where I have been (to know where I am going) but to pay tribute to those who inspired and supported me and shared knowledge along the way. Without you, it would not have been the same.

First of all, my gratitude goes to my supervisors, Lars Fuglsang, Dorthe Eide and Martin Rønningen, who have become my academic family and who inspired, taught and supported me in my research endeavour. Dorthe introduced me to the INSEPP Ph.D. programme, for which I am very grateful. Your knowledge, guidance and the research team with Veronika Trengereid and Kirsti Mathiesen Hjemdahl that you created have been highly important to my work on this thesis. Martin Rønningen, the leader of the INSEPP Ph.D. programme, has introduced me to academic and business environments in Lillehammer, where the first steps of my Ph.D. journey were taken. Martin, together with Finn Olsen, Anne Nordli, Randi Kvamme Bjørnestad, Marit Engen, Gunhild Wedum and other fantastic colleagues from the INSEPP Ph.D. programme, made me feel at home in Lillehammer. Tusen takk for det! I would like to express my sincere gratitude to my main supervisor, Lars Fuglsang, who has always been there with his valuable feedback, showed me that there is always a way to do better and motivated me to keep going. I am happy and grateful for knowing you and having you as my supervisor.

A large part of the work on the thesis was done at Roskilde University in Denmark (RUC), which stimulated work on the thesis by exposing me to a new research environment. Coincidentally or not, work on the thesis was moved from Norway to Denmark, where in the city of Copenhagen a little family was born. A little younger than my work on this thesis is my four-year-old daughter Olivia, who has already become a guiding star and travelling companion during the first years of her life. Min kære Olivia, snart skal du begynde at læse, og jeg vil gerne sige at jeg nok skal bruge mindre tid med min pc. Jeg elsker dig!

I want to thank my friends, Tanya Kolesnyk, Sergey Kosolapov and Are Jensen, who became my family during my university years in Norway and supported my decision to pursue the Ph.D.

I want to express my gratitude to all the participants in the empirical studies from Opplevelsesnettverk Nordland and to the Snowball and USUS networks for sharing their experiences. Special thanks to Ove Gjesdal and Knut Westvig for formal interviews and informal conversations as well as for introducing me to network members.

My deepest gratitude goes to my parents, Margarita and Igor Ponomarenko, who have always been there and supported me through all the years of my education, both before and during my Ph.D. journey.

Lillehammer, March 2018

ABSTRACT

Research increasingly focuses on innovation in service and experience. Topics of debate include whether innovation in manufacturing industries is similar to that in service and experience industries and whether inter-organizational collaboration in the latter industries may be even more important for innovation than in manufacturing. The understanding of innovation as taking place primarily within organizational boundaries has been recognized as limiting, with open and interactive innovation being promoted as a way to address business-facing resource constraints on the one hand and a constantly changing environment on the other. As a result, many forms of inter-organizational innovation, including innovation networks, have been discussed in the contexts of diverse industries. During the past decade, however, it has repeatedly been argued that, given the primary focus on innovation results, our understanding of the origins and development of innovation networks remains limited. Therefore, the main objective of this thesis is to increase understanding of the dynamics of innovation networks over time.

In order to contribute to an understanding of the dynamic and situated nature of network innovation, the thesis suggests taking a practice-based perspective on innovation networks. This involves looking closely at how, why and what network members do in their network activities to facilitate development of innovation and achieve specific results. By looking at how the practices of various network stakeholders interrelate, a practice-based perspective may further contribute to innovation network research by illuminating how network innovation is enacted in member companies, a topic to which the research literature pays little attention. This thesis argues that the family of practice-based approaches may accommodate an integrative, dynamic view on innovation networks that can be applied to diverse sectors of the economy.

This empirical qualitative study explores innovation network practices based on case studies of regional innovation networks that include firms, research and development institutions and public bodies. The study is conducted in the context of the Norwegian tourism industry with both service- and experience-based companies. The research results of four appended papers include complementary findings that describe the development of innovation networks as a *journey*, discuss the management of networks' practices through various *orchestration* roles and suggest an understanding of the integration of network innovation by member companies as a process of *mirroring*. These three metaphors in the study of the multifaceted phenomena of innovation network practices are inspired by previous innovation research and new insights.

This thesis makes both theoretical and practical contributions. Its theoretical contribution lies in using a practice-based perspective to understand the dynamics of innovation networks. A combination of genealogical, configurational and dialectical traditions in

practice-based research allows the integration of the findings of separate research papers into a model of innovation network practices with theoretical implications for practice, innovation and network theory. The discussion of innovation network practices as dynamic and embedded, developed in an environment of interference from several types of network-member practices, leads to the development of the concept of balanced innovation. Balanced innovation refers to the enactment of network innovation in the practices of network members. It implies that network members need both to sustain their core practices and continually innovate by integrating network innovations. The thesis concludes with practical implications for network and company management, and public organizations that facilitate the development of innovation networks. These implications reflect different view on the development of innovation networks as a combination of both planned and emergent, bottom-up processes rooted in the practices of network members. This means that network management and facilitating organizations need to cultivate industry-specific knowledge as well as provide more supporting and cultivating roles in network management.

LIST OF TABLES

Table 1. Distribution of the research questions over the appended papers

Table 2. Distribution of the research questions in the theoretical framework

Table 3. Nature of practice

Table 4. Premises of the service-dominant logic

Table 5. Theoretical perspectives of organizational change with respective examples in the network literature

Table 6. Interviews in the first round of data collection (2013)

Table 7. Types and number of informants in each case (2016)

Table 8. An overview of the documents used in the research inquiries

Table 9. Research trustworthiness

Table 10. Summary of the contributions of the research papers appended to this thesis

CONTENTS

Acknowledgements

Abstract

1	Introduction	1
1.1	Norwegian tourism: setting the stage for the study	1
1.2	Need for research	4
1.3	Statement of the research problem	9
1.4	The structure of the thesis	11
2	Theoretical framework: towards innovation network practice ..	13
2.1	Practice	14
2.1.1	The complexity of practice	16
2.1.2	Social nature of practice	19
2.1.3	Practice embeddedness in time and place	20
2.2	Innovation	22
2.2.1	Innovation: from manufacturing to services	23
2.2.2	Innovation: from services to experiences	26
2.2.3	Integrative approach	28
2.3	Network collaboration as a driver of innovation	34
2.3.1	Collaboration and its different forms	34
2.3.2	Development and orchestration of innovation networks: state of the art	37
2.3.3	Innovation network practice: can the practice-based approach remedy the limitations of the linear models?	47
2.3.4	The role of innovation network practices for network members' innovation	49
3	Philosophical assumptions and methodological implications ...	53
3.1	Philosophy of science: the nature of social reality and its implica- tions for studying the dynamics of innovation network practices	53
3.1.1	Philosophical assumptions	53
3.1.2	Implications of the social constructionist philosophy in the study of the dynamics of innovation networks	55
3.1.3	Practice-based approach: complexity of studying practices of innovation networks	58
3.1.4	Hermeneutic phenomenology	60
3.2	Data collection	61
3.2.1	Selection of cases	63

3.2.2 Data collection techniques	69
3.3 Data analysis	77
3.4 Quality of the research	82
4 Summative discussion and contribution	89
4.1 Summary and further discussion of the findings in the appended papers	92
4.1.1 Main theoretical approaches to collaboration on innovation in tourism (Paper 1)	92
4.1.2 Development of innovation networks over time (Paper 2)	93
4.1.3 Orchestration of innovation networks over time (Paper 3)	96
4.1.4 The role of innovation network practices for network members' innovation (Paper 4)	98
4.2 Innovation network practices: integrated theoretical model	100
4.2.1 Towards the dynamics of innovation network practices	101
4.2.2 Balanced innovation	112
4.3 Practical implications	121
4.4 Conclusion, limitation and further research	126
References	129

The Papers

- Paper 1. Towards a multilevel framework of collaborative innovation in tourism
- Paper 2. Dynamics of innovation network journeys: phases and crossroads in seven regional innovation networks
- Paper 3. Dynamics of network orchestrators' roles in innovation network journey: a multi-case study
- Paper 4. Between company and network practices: mirroring innovative ideas

Attachments

1 INTRODUCTION

This thesis is about the dynamics of innovation network practices that take place between the members of innovation networks over time and the role of these dynamics for changing practices of network members. To situate the current research in innovation networks empirically and theoretically, the introduction chapter begins with a short discussion of tourism in Norway, where the networking takes place, and continues with a discussion of the need for research in the field of innovation networks in tourism. Then the chapter presents the main problem statement and four research questions constituting the main statement. The chapter closes with the structure of the thesis.

1.1 Norwegian tourism: setting the stage for the study

Tourism is a growing industry worldwide in spite of economic, political and cultural challenges. The UNWTO *Tourism Highlights* report suggests that in 2016, there was a new record of tourist arrivals worldwide, which was equal to 1,235 million tourists, with total earnings at the destinations equal to US\$1,220 billion (World Tourism Organization, 2017). In Norway, the inbound tourism is measured by the arrival of international tourists to Norwegian hotels, which equalled 4.1 million tourist arrivals in 2016 (Innovasjon Norge, 2016). While Norwegian inbound tourism grew by 12% in 2016, which is faster than the world average (4%), in countries of the Northern Europe (6%), and on average in Europe (2%), the share of European tourism in international tourist arrivals is decreasing (48.3% in 2016, which is 2% less than in 2015) (World Tourism Organization, 2017). The key tourism figures worldwide show the contribution of direct, indirect and induced tourism to be equal to 10.2% of world GDP (4.2% in Norway), and every tenth job involves employment in tourism (fifteenth in Norway) (World Tourism Organization, 2017; Innovasjon Norge, 2016). In spite of the growth of world tourism during the past consecutive seven years, since the 2009 global economic crisis, tourism in Norway has become more vulnerable to both international and national factors, for instance, growing number of terrorist attacks in Europe. The attack in 2011 in Norway led to a decline of inbound tourism in 2012. Nevertheless, Norway is considered to be among the safest countries by international travellers. Besides, weaker Norwegian currency, long-term profiling of Norway as a destination and targeted work in the tourism industry to promote product development, cooperation and competence development (Nærings- og Fiskeridepartementet, 2016-2017) has contributed to the leading position

of Norway when it comes to growth of international arrivals, compared to the average European numbers in the past years.

When it comes to the number of international tourists (as shown by the total number of national and international guest-nights) distributed by the regions of Norway, the Fjord Norway part of the country hosted the biggest share of international guest-nights in 2016, and what is more, this share was the biggest throughout the year (Innovasjon Norge, 2016). In 2016, Fjord Norway hosted 38% of international commercial guest-nights (with the 3% growth equal to 308.6 thousand guest-nights, compared with 2015), Northern Norway – 33% (3% equals 189.5), Eastern Norway – 28% (1% equal to 367.5), Trøndelag – 18% (0%) and Southern Norway – 16% (1% decrease), respectively (Innovasjon Norge, 2016). Even though the growth of international tourists is larger than the national rate, the majority of tourists (70%) are still Norwegians. When it comes to the distribution of the total number of international and national commercial guest-nights in 2016, Eastern Norway still has the biggest share of 48%, followed by Fjord Norway (24%), Northern Norway (11%), Southern Norway (9%) and Trøndelag (8%). It is, however, important to emphasize that there are a lot of hidden numbers in tourism, which are not taken into account in the statistics, but which add to the value creation and have repercussions over a longer period of time. Therefore, accommodation and growth in guest-night numbers are only a part of the whole picture.

Research of the early 2000s points at the fact that international tourists have little knowledge about Norway and the variety of its tourism products (Rønningen, 2001). Further, it suggests that the accuracy of knowledge can be related to “geographical distance of tourists’ national origins” and other individual factors of, for example, age, education or previous travel experience (Jensen & Kornellussen, 2002). Norway seems to be most known for its fjords, beautiful nature, mountains and northern lights. Annual analysis of Norway as a destination by Innovation Norway more than a decade after (2014) shows some of the similar results: Norway is most known for fjords (30%), nature (17%), mountains (11%), cold (10%), snow (8%), landscape (8%) (Innovasjon Norge, 2014). International events, such as the Winter Olympic Games in 1994 and the Nordic World Ski Championship in 1997, have also promoted Norway as a winter destination. Nevertheless, a largely seasonal tourism industry in Norway attracts more than half of the total number of commercial guests-night in the summer months, from May to August.

The growing number of destinations and competition raises tourists’ expectations in terms of lower costs, better infrastructure and diversified content. Some examples of the latter are suggested by the weekly measurements in Norway, Sweden, Denmark, UK and Germany by Innovation Norway: the likelihood of travelling to Norway increases when tourists believe that Norway can offer exciting city experiences, culture and history,

good food experiences and local specialities (Innovasjon Norge, 2016). This reflects the growing interest in tourism experiences that are “personal, interactive and complex” and which are about “fantasies and feelings ..., presence, participation and co-creation of consumers...which fulfil consumers’ functional needs” (Jernsand, Kraff, & Mossberg, 2015, p. 98). Many agree that Norway has strengthened its position as a country with good bicycling and hiking possibilities, as well as winter activities such as skiing and snowboarding (Innovasjon Norge, 2016). In order to meet the expectations of tourists that vary from experiences based on the need for peace and relaxation to activity-based vacations, festivals, cultural trips and food experiences, Stortingsmelding 19 notes that the Norwegian tourism industry must continue its adaptation to experience-based tourism (Nærings- og Fiskeridepartementet, 2016-2017). The development in different parts of Norway is described in the figure below.

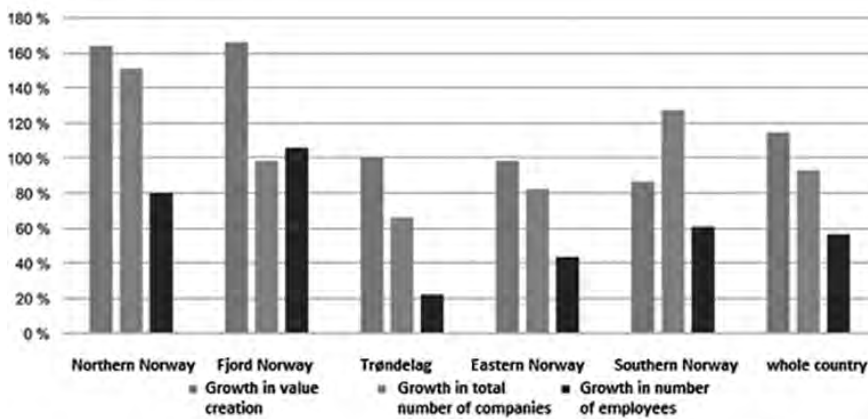


Figure 1. Development in the experience-based tourism 2004-2013. Source: adapted from Stortingsmelding 19 (Nærings- og Fiskeridepartementet, 2016-2017)

“In order for Norwegian tourism industry to succeed in delivering attractive travel experiences that are competitive in the future, there is a need for new knowledge and a higher degree of innovation than traditional tourism production...” (Nærings- og Fiskeridepartementet, 2016-2017, chapter 3, subchapter 3.2.2.).

At the same time, the continuous growth in the tourism industry in Norway may be challenging. Stortingsmelding 19 by Nærings- og Fiskeridepartementet (2016-2017) describes at least the following: an increased number of travellers has an impact on nature, the environment and local communities, and inadequate coordination may weaken productivity and profitability in the industry. In order to reach the overall objective of business policy, namely, the greatest possible value creation in the Norwegian economy in a sustainable way, Stortingsmelding 19 suggests the following measures for the tou-

rism industry: 1) good general conditions, including e.g. economic and tax incentives, road and rail construction, etc; 2) sustainable tourism industry that promotes environmental, social and economic values; 3) strengthened coordination across different sectors and regions within tourism and beyond, e.g. other industries (culture, agriculture), local and regional administrations; 4) continuous work that profiles Norway as a destination; 5) knowledge and competence in tourism to be able to develop innovative tourism products in the future.

Stortingsmelding 19 (Nærings- og Fiskeridepartementet, 2016-2017) continues the message of the Governmental Tourism Strategy 2007 by the Norwegian Ministry of Trade that, in order to strengthen Norway as a destination, tourism companies must see themselves as a part of “bigger product” and become better at cooperating; the competence of the tourism industry must be increased and quality assurance must be in place. While the main responsibility lies first and foremost with the tourism industry itself, government facilitates its development by its respective policies and creation of supporting structures. An example is the Norwegian Arena Programme, which is meant to increase innovation and value creation in regional businesses environments through strengthening the interactions between business, knowledge providers and the public (Nærings- og Handelsdepartementet, 2007).

1.2 Need for research

In order to theoretically situate the current study on innovation networks, it is important to make clear what is understood as an innovation network. Social networks vary depending on their formality, organization, purposes, membership, geographical situatedness, size, etc. The above section has opened the discussion about the empirical phenomenon of policy-mediated collaboration of tourism businesses. Further, the type of networks studied in this thesis can be defined as regional innovation networks that include tourism businesses, research and knowledge institutions, as well as public bodies (Hall, 1999) and that aim to facilitate “innovation, knowledge sharing, competitiveness and sustainable economic development” of the industry (van Der Zee & Vanneste, 2015, p. 47). This type of network can also be referred to as a formal type, due to its participation in the publically financed innovation programmes that put requirements to networking processes and results through the “formal structure of control” (Smith, Carroll, & Ashford, 1995, p. 10). This thesis acknowledges the role of innovation network programmes for the development of innovation networks; however, it is not the main focus. This thesis also inquires about the informal sides of the development of innovation networks that are inherent in network practices.

Although network collaboration and its role in innovation have received a lot of attention in research in general and in tourism research, in particular (Alsos, Eide, &

Madsen, 2014; Novelli, Schmitz, & Spencer, 2006), “the promising theoretical claims of potential benefits of networked collaboration ... [are] little supported by empirical evidence” (van Der Zee & Vanneste, 2015, p.46). Further, suggesting the research agenda (Green, Pyka, & Schön, 2013; Sørensen & Fuglsang, 2015), scholars agree that research findings on the variety of network structures and outcomes are limited and vague when there is no understanding of how and why networks emerge and change over time (Ahuja, Soda, & Zaheer, 2012; Powell, Packalen, & Whittington, 2012). By developing this line of research, scholars often conceptualize innovation networks as a combination of nodes and ties that are associated with the social network analysis (SNA) tradition (Clark, 2011; Stuck, Broekel, & Revilla Diez, 2016), where network dynamics are expressed in a changing number and characteristics of such nodes and ties. Further, acknowledging the complexity and multidimensionality of innovation networks and their change along most of their dimensions over time, the research literature (Green et al., 2013; Sundbo, 2010) develops life cycle-based taxonomies in order to seize the innovation network development in a comprehensive model with a particular sequence of stages. This is indeed very important work because it enhances our understanding of the nature and development of such a complex phenomenon and its role for learning and innovation. Besides, linear models similar to the life cycle model described above are important for policy organizations and network management in order to be able to facilitate the development of networks towards innovation. This thesis, however, joins the parallel of the linear models discussion that, to date, is underrepresented in the research literature. What should management do if a network never reaches a particular stage? Or what if it does not follow the common cycle of stages? Can one appeal to a more nuanced understanding of the development of innovation networks when “no taxonomy – no matter how well elaborated – will ever be able to capture all aspects of the complex and dynamic phenomena that characterize social networks” (Green et al., 2013, p. 133)? The preliminary answer is yes, which is based on a more recent study that argues that besides organized dynamics, network development is also emergent and has its own “impact on knowledge exchange and innovation” (Clegg, Josserand, Mehra, & Pitsis, 2016, p. 277). Thus, this thesis acknowledges the lack of research that focuses on the development of the practices of innovation networks over time and their role for network members’ innovation, which may shed light on the complex and embedded nature of innovation networks and offer support for the management and facilitators of such networks. This understanding of dynamics is context dependent, which points at another knowledge gap. Namely, when exploring network dynamics, tourism research often draws on findings developed in studies of manufacturing industries (Baggio & Cooper, 2010), even though the tourism industry comprises mainly service- and experience-based companies. Thus, there is a need for more empirical research that focuses on the complex, embedded and context-dependent practices of innovation networks in order to get a better understanding of their development and the role of their devel-

opment for network members' innovation. This thesis addresses the following research gaps: 1) The lack of reflection on the relations between different theoretical approaches to collaboration on innovation in tourism. 2) The lack of knowledge about the development of innovation networks over time from the practice-based perspective. 3) The lack of knowledge on how both planned and emergent development of innovation networks can be managed. 4.) That there is only little knowledge about the role of innovation networks for network members' innovation.

1) *The lack of reflection on the relations between different theoretical approaches to collaboration on innovation in tourism*

Network collaboration, often addressed as social network approach, is not the ultimate research approach in studies of collaboration on innovation in tourism research. As tourism researchers have incorporated theories and approaches applied in other industries (Hjalager, 2010), terms such as *dyadic relationships* (Sheehan, Ritchie, & Hudson, 2007), *communities of practice* (Fuglsang & Eide, 2012), *social network* (Sørensen & Fuglsang, 2015), *destination* (Pearce, 2014), *innovation systems* (Mattsson, Sundbo, & Fussing-Jensen, 2005) or a combination of some of them (van Der Zee & Vanneste, 2015) describe collaboration between different types of tourism stakeholders. Different research approaches have a different focus, for example, on collaborative structure in social network approach or complexity in innovation systems approach. However, they all discuss collaboration in respect to new knowledge and innovation potential for network members. A framework that would help clarify and systemize different research approaches to study collaboration on innovation in tourism seems missing. It is necessary to clarify the main characteristics of different approaches and to learn how innovation is conceptualized in each approach. Such a framework can be useful for attributing future research of collaboration on innovation in tourism to a particular approach; it will provide a theoretical rationale for the thesis to further elaborate on the phenomenon of innovation network and it can help outline different perspectives on networks that managers may take into consideration.

2) *The lack of knowledge about the development of innovation networks over time from a practice-based perspective*

As mentioned above, research on service- and experience-based innovation networks in general and tourism networks, in particular, has developed along a similar trajectory to networks in manufacturing and high-tech industries (Baggio & Cooper, 2010; Owen-Smith & Powell, 2004). This can be problematic in regard to both the nature of innovation and the dominant research approach used to study networks, as somewhat mentioned above. *First*, innovation in service and experience industries is argued to be different from that in manufacturing industries (Sundbo, Sørensen, & Fuglsang, 2013; Tether, 2005), which may cause reservations in adoption of the same theories without

thorough empirical analysis of their validity. It is particularly important in the dynamic studies of innovation networks as it may provide misleading or oversimplified picture of network development, which is often implicitly or explicitly seen as linear progression of stages where innovations are being developed and implemented (Green et al., 2013). *Second*, according to the dominant social network research approach, networks are conceptualized as a configuration of actors or “nodes” and “ties” between them (Burt, 1992; Granovetter, 1973). The main idea is that innovation potential of a network is in novel information, access to which depends on a structural and relation position of a company in a network. And network dynamics are then interpreted through the change of the companies’ positions (Baggio, Scott, & Cooper, 2010). However, this approach may overlook what actually happens in the networks’ practices that drive them towards innovation. Thus, in this thesis I follow the argument that the “nodes” and “ties” approach is a more passive perspective on the emergence and development of networks towards innovation that tends towards “neglecting the manifold practices” being performed (Geiger, 2009, p. 129). More empirical research that looks at tourism as practice (De Souza Bispo, 2016) may shed light on innovation network practices and, thus, explain the benefits of network collaboration (van Der Zee & Vanneste, 2015). An example of innovation network practice can be activities related to following a specific trend, e.g. experience economy (Fuglsang & Eide, 2012), improvement of existing or development of new experiences (Jernsand et al., 2015), joint marketing (Skálén, Pace, & Cova, 2015), etc. This different take on knowledge, which is socially constructed in the process of active engagement into a common social activity, i.e. practice (Brown & Duguid, 1991), can provide a more nuanced picture of how innovation networks are developed.

3) *The lack of knowledge about how innovation networks are managed over time*

Innovation networks are recognized as being important for innovation in tourism firms (Sundbo, Orfila-Sintes, & Sørensen, 2007). What is less discussed is that a significant part of success of such innovation networks and ability to sustain them over time is in their management (Dooley & O’Sullivan, 2007). The existing research in this field argues that there are specific roles that need to be exercised by the network management in order to succeed with innovation (Dhanasaj & Parkhe, 2006). It is further argued that network management has a number of critical differences from the widely discussed characteristics of the firm management. This is, first of all, due to the complexity of organization of innovation networks that consist of a number of firms and often also other organizations (e.g. research and development (R&D) institutions), each with their own practices, ideas and cultures that need to be brought together and learn how to interact (Landsperger, Spieth, & Heidenreich, 2012). And even though firms become members of innovation networks, they preserve their independence, which is characterized as a loosely coupled nature of innovation networks (Orton & Weick, 1990). As a result,

research on innovation network management argues that innovation networks should be orchestrated rather than managed, and should describe processes, the orchestration of which is important for innovation, i.e. knowledge mobility, innovation appropriability and network stability as well as relations between the three processes (Dhanasaj & Parkhe, 2006). Acknowledging the dynamics of innovation network orchestration, later research further argues that different periods of network development over time may require a different orchestration focus and suggest using the life-cycle model to lay out different orchestration roles (Nilsen & Gausdal, 2017). However, the life-cycle model, earlier argued to be linear and generic, does not pay much attention to the orchestration of the emergent and situated development of innovation networks (Clegg et al., 2016), which are argued to be important in developing innovation.

4) *That there is little knowledge about the role of innovation networks for network members' innovation*

On the wake of call for more research on innovation networks and their development (Clegg, Josserand, Mehra, & Pitsis, 2013; Fuglsang, Ness, & Eide, 2015), scholarly attention is indeed focused on the internal innovation network processes and joint innovation results of these processes. While some scholars recognize the need to study the “*organizational* impact of social networks” (Newell, Robertson, Scarbrough, & Swan, 2009, p. 165), there is still little evidence of the impact that new knowledge and innovation developed in networks make for network members' innovation. One way to handle this knowledge gap could be by addressing the existing perspectives to the spread of innovation, e.g. diffusion or translation (Czarniawska-Joerges & Sevón, 2005; Rogers, 1983). These perspectives, however, are developed in societal and organizational contexts. They do not account for either characteristics of network–company context or practice-based perspective on studying innovation. Among other things, the latter means that they fail to frame the complexity of integrating network innovation into the organizational practices that are “resistant to change” (Brown & Duguid, 1991, p. 40). Thus, it is important to highlight the duality between the innovation network practices and member company organizational practices, as well as the relation between the two (Nicolini, Gherardi, & Yanow, 2003). This way, it is important to both develop more knowledge about the internal processes describing the development of innovation network practices (Fuglsang & Eide, 2012) and the way they are orchestrated (Nilsen & Gausdal, 2017), but also to form an understanding of how these are integrated with organizational practices of network members and implications of that for company management.

1.3 Statement of the research problem

The main objective of the current research is to develop a better understanding of the dynamics of innovation network practices. This objective is approached through interpretative analysis of understandings and experiences of tourism practitioners who shape and change network practices towards innovation. The study focuses on policy-mediated innovation networks between companies in the context of the Norwegian tourism industry that are not self-organizing business networks created to carry out a particular task. By focusing on practices of innovation networks over time and implications of these practices for network members' innovation, the study seeks to contribute to the theoretical discussion of how innovation networks are developed and orchestrated over time. The study suggests practical implications for policy makers and network management on how innovation networks can develop and lead to innovation as well as for company management on how innovation network practices can be used to facilitate organizational innovation.

The problem statement of this thesis is:

How can the development of innovation networks be understood over time from the practice-based perspective and how can network innovation be enacted in the practices of network members?

The problem statement is further elaborated through the following research questions (summarized in Table 1 in the end of the section):

- 1) *What characterizes the main theoretical approaches to collaboration on innovation in tourism?*

This research question addresses the first research gap, i.e. the lack of reflection on the relations between different theoretical approaches to collaboration on innovation in tourism. Collaboration on innovation and innovation networks are understood and conceptualized differently in research on innovation in tourism. Namely, collaboration on innovation can be constituted by smaller units of analysis, e.g. dyadic relationships or communities of practice, or be a part of a broader collaboration within a destination or an innovation system. The first paper addressed this by examining different types of collaboration on innovation in tourism, namely dyadic relationships, communities of practice, social networks, destinations, and innovation systems (Baggio et al., 2010; Håkansson & Ford, 2002; Newell et al., 2009), where the research question is meant to derive the logic of different research approaches by going back to the foundation papers and applying a wider literature review. By answering the research question, this study aims to provide a general framework of collaboration of different scale and its role for innovation in tourism.

2) *How do innovation networks develop over time?*

This research question addresses the second research gap, i.e. the lack of knowledge about the development of innovation networks over time from the practice-based perspective. The research question is studied through a large qualitative multi-study of seven innovation networks and is addressed in the second appended paper. Two types of literature are reviewed: a more traditional organizational change approach based on stage models and factors of change (Van De Ven & Poole, 1995) as well as process- and practice-based approaches (Antonacopoulou, 2008; Pettigrew, 1997) to networking. The two approaches are then combined in a framework that is inspired by understanding of innovation as a journey (Van de Ven, Polley, Garud, & Venkataraman, 1999) and forms a theoretical preunderstanding of innovation network development over time. The metaphor of a journey can be associated with an innovation map where “temporal sequence of events” is interrupted by junctures and hurdles and where innovation processes are “neither stable and predictable nor stochastic and random” (Van De Ven et al., 1999, p. 21). The innovation network journey framework inspires the exploration of innovation networks’ practices in different temporal periods as well as critical factors influencing the dynamic development of innovation networks.

3) *How are innovation networks orchestrated over time?*

This research question addresses the third research gap, i.e. the lack of knowledge about how innovation networks are managed over time. Addressed in the third appended paper, this research question is studied based on the same data set of seven innovation networks as in paper two. The third paper explores the roles of innovation network orchestrators and the development of orchestration roles over time. The study is inspired by the theoretical framework of Nilsen and Gausdal (2017), who build their study on the existing research on network orchestration (Dhanasaj & Parkhe, 2006; Paquin & Howard-Grenville, 2013) and a longitudinal empirical case study of an innovation network. Followed by the inductive development of the orchestration roles, it is suggested that the alternative of the innovation network journey (developed in the second paper) should be used instead of the life cycle model used in the initial framework of Nilsen and Gausdal (2017) in order to plot the roles of network orchestrators over time. By doing so, the paper seeks to advance our understanding of the changing roles of network orchestrators over time in a more complex, non-linear and context-dependent way.

4) *What is the role of innovation networks for network members’ innovation?*

This research question addresses the fourth research gap, i.e. that there is little knowledge about the role of innovation networks for network members’ innovation. The research question discovers the role of innovation network practices in organizational practices and innovation of network members. The research question is studied based

on a smaller qualitative data set of two innovation networks and is addressed in the fourth appended paper and further developed in the synopsis. The fourth paper brings the organizational practices of the network members into focus in order to learn how network members can enact the dynamic practices of the innovation networks in which they participate in their home organizations. The theoretical framework is developed as a combination of the elements of the existing notions of the spread of innovation (Czarniawska-Joerges & Sevón, 2005; Rogers, 1983) and innovation from the practice-based perspective, which can be understood as a recombination of the constitutive elements of practice, i.e. image, material and skill (Pantzar and Shove, 2010). The research findings confirm the viability of the theoretical framework, inspired by Foucault's mirror metaphor (Foucault and Miskowiec, 1986), to understand the spread of innovation in the network–company context. Further elaborations on the integration of innovation network practices into organizational practices of network members during work on the synopsis allowed the derivation of a number of dimensions that need to be balanced by the network members to gain from the innovation network practices in home organizations, summed up in the concept of “balanced innovation”.

Table 1. Distribution of the research questions over the appended papers

Problem statement	How can the development of innovation networks be understood from the practice-based perspective and how can network innovation be enacted in the practices of network members?			
Research questions	1. What characterizes the main theoretical approaches to collaboration on innovation in tourism?	2. How do innovation networks develop over time?	3. How are innovation networks orchestrated over time?	4. What is the role of innovation network practices for network members' innovation?
Addressed in papers	Paper 1: Towards a multilevel framework of collaborative innovation in tourism	Paper 2: Dynamics of innovation network journeys: phases and crossroads in seven regional innovation networks	Paper 3: Dynamics of network orchestrators' roles in innovation network journey: a multi-case study	Paper 4: Between company and network practices: mirroring innovative ideas

1.4 The structure of the thesis

The introduction chapter is followed by four chapters. The second chapter describes the theoretical framework that informs understanding of the dynamics of innovation networks in tourism and their role for network members from the practice-based per-

spective, and guides the exploration of the empirical phenomenon. The third chapter introduces the philosophical stance, which defines ontological and epistemological assumptions behind the research and explains the methodological implications of it for the data collection, analysis and quality of the research inquiry. The fourth chapter includes the summative discussion of the research papers and the joint contribution of the thesis, concludes the research results and identifies limitations and directions for further research. Finally, the last chapter includes the four research papers that the thesis is based on.

2 THEORETICAL FRAMEWORK: TOWARDS INNOVATION NETWORK PRACTICE

The purpose of this chapter is to develop a framework that will form a theoretical understanding and guide exploration of the empirical phenomenon of the dynamics of innovation network practices in tourism. The framework is founded in the intersection of innovation, network and practice theories.

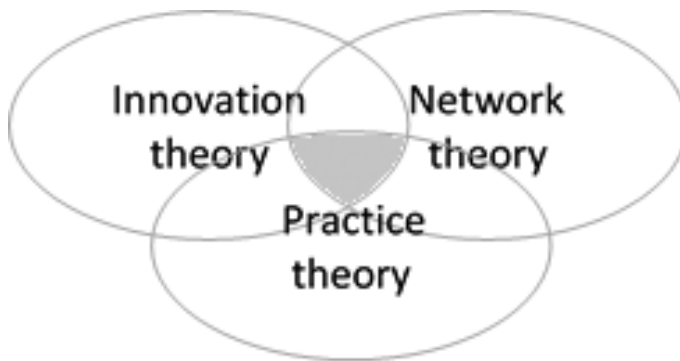


Figure 2. Theoretical mapping of the current research

The structure of the chapter is respectively divided into three main parts that unfold the composite concept of innovation network practice by discussing:

(2.1.) The origins of the practice-based approaches and the complex, social and embedded nature of the practices.

(2.2.) Innovation, how it is studied within assimilation, demarcation and integrative approaches applied to different sectors of economy and how the practice-based approach can be an alternative to the integrative approach to innovation.

(2.3.) Collaboration as a driver of innovation and network as a collaborative form, state-of-the-art in research on innovation network development and orchestration over time, and how the practice-based perspective can remedy the limitations of the existing perspectives on network dynamics.

The theoretical framework addresses the four research questions of the thesis in the following sections of the chapter:

Table 2. Distribution of the research questions in the theoretical framework

	Research question	Addressed in the theoretical framework
RQ1	What characterizes the main theoretical approaches to collaboration on innovation in tourism?	2.3. (particularly, 2.3.1. and 2.3.3.)
RQ2	How do innovation networks develop?	2.3 (particularly, 2.3.2. and 2.3.3.) based on the practice-based version of the integrative approach to innovation developed in 2.2.3
RQ3	How are innovation networks orchestrated over time?	2.3.2.
RQ4	What is the role of innovation networks for network members' innovation?	2.3.3. based on 2.1.

2.1 Practice

Research emphasizing the importance of understanding tourism from the practice-based perspective – from community-specific knowledge and learning (Bertella, 2012; Eide, 2007) to innovation (Heemstra, 2015) – continues to attract scholarly interest. Practice theories recognized by tourism scholars in recent years (De Souza Bispo & Godoy, 2012; Fuglsang & Eide, 2012; James & Halkier, 2016) offer prospects of a more nuanced insight into “everyday activities, routines and understandings” (James & Halkier, 2016, p. 831) of tourism subsectors, e.g. food or outdoor activities, and collaboration across tourism subsectors as an important part of regional development. Building on these premises, my intention is to contribute to the further development of understanding tourism from the practice-based perspective by discussing how this perspective can be used to study innovation networks in tourism. To do so, this section opens by defining practice more generally.

There are different streams in the family of practice-based approaches. For example, Nicolini et al. (2003, pp. 7-12) distinguish the following traditions that are important to the development of the notion of practice, namely, the Marxist tradition, the phenomenological tradition of Heidegger and others and Wittgenstein's legacy. Although different traditions often emphasize different aspects of practice, for example, inseparability of knowing from doing (Marx), subject from object of practice (Heidegger) or importance of language for constructing meanings in practising a practice (Wittgenstein), they enrich the practice tradition. Nevertheless, according to Nicolini et al. (2003, p. 12), these traditions agree that organizing is a “practical accomplishment”. Varying understandings of practice in the family of practice approaches are also

systematized in more recent works, for example, by Antonacopoulou (2008) or Nicolini and Monteiro (2017). A practice can be understood as a form of human activity that is associated with specific skills and understandings that are repeatedly exercised towards a specific purpose. In order to address the main assumptions of practice research, the further arguments in the thesis are built upon both the original definitions and the later reviews of practice-based literature. The main idea of practice-based approaches is that the focus on micro everyday activities opens up a processually more detailed and genuine understanding of organizational or social phenomenon. In order to discuss the main characteristics of practice, I shall refer to a recent work by Nicolini and Monteiro (2017, pp. 111-114) where the authors systematize the existing practice streams of research into 11 main points:

1. Practices “hold a number of sub-components – usually smaller units of activity”
2. “Practices and their sub-elements only acquire sense when organised around an end or object”
3. “Practices exist in configurations”, referred to “as knots, networks, nexuses, assemblages, and textures”
4. “Practices have a collective and normative nature”
5. “The normativity of practices is not found in the ability to follow general rules but in the mutual (and personal) scrutiny of its constituency”
6. “Practices are inherently material in nature”
7. “There are always partial inconsistencies and tensions within the components of a practice and among different practices”
8. “All practices have a history and are historically situated”
9. “The social and material nature of practices also makes them inherently situated in a particular moment in time, space, and history”
10. “The indeterminacy of practices allows scope for initiative, creativity, and biographies
11. “Practices and their assemblages empower certain courses of action (and those positioned to take them) over others”

Further scrutiny of the 11 characteristics seems to allow them to be condensed into three main points, namely the complexity of practice (1), social nature (2) and embeddedness (3).

Table 3. Nature of practice

The practice is		
Complex	Social	Embedded
1, 2, 3, 6	4, 5	8, 9, 10

The complexity of practice embraces characteristics number one, two, three and six. Practice is complex both horizontally, i.e. comprising a number of a simpler processes and actions (1) and relationships between them (3), and on a more aggregated level, i.e. the totality of a given practice comprising of its core elements such as being “organised around an end or object” (2), being material (6) or other and relationships between them. The social nature of practice means that practices are performed and reproduced by a group of practitioners where norms and culture become established in the joint process of activity (4, 5). And finally, the embeddedness of practice means that a particular practice is inseparably related to other practices as well as practice being embedded socially, historically, geographically and economically, which influences the past, present and future of a practice (8, 9, 10). Therefore, although practice-based approaches are indeed processual in their nature (Langley, 2007; Pettigrew, 1997), they go further by accounting the “artefacts, the body, and the historical and social conditions within which processes take place” (Nicolini and Monteiro, 2017, p. 124). I shall start with the complexity of practice.

2.1.1 The complexity of practice

Tourism as a research field posits a number of dualisms, where one needs to take a stand to position one’s own research. An example of such dualisms is “home” and “away” or “tourist” and “non-tourist” (Cohen & Cohen, 2012; De Souza Bispo, 2016). Although dualisms “are a limited means of understanding tourism”, they are essential to “simplify the complexity involved in the tourism dynamic and its relation to other practices” (De Souza Bispo, 2016, p. 172). In this thesis, tourism practices are simplified to the study of the production side, i.e. what happens in the everyday of tourism companies within a destination and how they participate in networks. Therefore, instead of a more traditional understanding of tourism as “a collection of commonly understood and embodied practices and meanings which are reproduced by tourists through their performances – in alliance with tourist managers and workers” (Edensor, 2001, p. 71), the focus is on how and what tourism companies do to (re)produce tourist products and experiences. An example could be practices of a seasonal tour-guide representing a collection of activities including but not limited to a continuous learning about natural and/or cultural heritage of a particular destination, meeting, organizing and leading audience, narrating true story while showing excursion-related places and artefacts, equipping tourists with a reliable information about other activities or places in the destination, etc. This im-

plies that a guide must have a certain background, i.e. to be knowledgeable, a good storyteller and a good communicator, and to have good organizational skills, certain other personal traits and established routines, which are important to understand in order to be able to manage or change this practice.

As mentioned above, a practice is complex as it comprises a number of processes and actions. Practices as a basic level of analysis can be described as “systems of activities (Engeström, 1987), organized sets of doings and sayings (Schatzki, 2002), discourses and discursive formations (Foucault, 1977), or the resources and procedures that produce mutually intelligible scenes and courses of action (Atkinson & Heritage, 1984)” (Nicolini & Monteiro, 2017, p. 110). An example from the recent tourism research is food practices comprising “producing food, retailing, catering, and promoting” food tourism (James & Halkier, 2016, p. 831). Other tourism practices, for example outdoor activities, culture tourism or accommodation, can be similarly simplified by breaking them down into more specific processes that vary across tourism subsectors but can also vary across companies within one subsector.

One way to study these different processes organized into specific types of tourism practices is by addressing the constitutive elements of practice and relationships between them on a more aggregated level. Namely, following the research argument that practices are constituted by a set of elements combined in a particular way (Pantzar & Shove, 2010; Schatzki, 2001). Schatzki (2001), for example, argues that doings and sayings form the organization of a practice by being linked through understandings, rules and mental determination. For Reckwitz (2002, p. 249), a practice (Praktik) consists of interconnected elements of “forms of bodily activities, forms of mental activities, ‘things’ and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge”. Antonacopoulou (2008) argues that the “embodiment of practice” can be defined by the categories of practice, practitioners and purpose of the practice. Warde (2005, p. 139) states that “a practice has a set of established understandings, procedures and objectives” that define its “trajectory or path of development”. Importantly, these different elements of practice need to be integrated into a coherent set in order to constitute a practice, or as Reckwitz (2002, p. 250) puts it: practice “necessarily depends on the existence and *specific interconnectedness* of these elements”, and “cannot be reduced to any one of these single elements”.

Although recent tourism research has emphasized the potential of practice-based approach (Bærenholdt & Haldrup, 2006; Fuglsang & Eide, 2012), it does not break practices down into their constitutive elements. However, breaking a practice down to its constitutive elements may have important theoretical and methodological implications when studying a practice. A practice is always attached to some value for its practitioners and breaking a practice down to its core elements may allow, among other

things, “to theorize how interactive value formation takes place and how value is inter-subjectively assessed by agents” (Echeverri & Skålén, 2011). However, the claim that it is not common to break practices down into their core elements in tourism research does not mean that the discussion of the elements that appear constitutive for tourism practices is neglected. For example, Fuglsang and Eide (2012, p. 1) discuss the experience economy as an idea that “is broad enough to give meaning to, and pull together, a number of diverse supporters”. In addition, Baggio and Cooper (2010, p. 1758) discuss how “destinations can share and benefit from knowledge” and Halkier (2014, p. 1660) discusses the importance of “financial ... resources among the small and micro firms that dominate many tourist destinations”.

Thus, separate elements that are central for tourism practices are indeed discussed in tourism research, however, this is seldom in the context of being necessarily integrated with other elements to constitute a particular practice. One of the rare examples is the work by Shove and Pantzar (2005; 2010) who discuss the practice of Nordic Walking as being constituted of a combination of elements and relationships between them. Pantzar and Shove (2010, p. 447) decompose practice into a “combination[s] of symbolic and material ingredients and of competence or know-how” where “managers, manufacturers and consumers are all variously involved in making and sustaining connections between these defining elements”. In the context of Nordic Walking, the material element is the walking sticks, the skill element is a special technique of using the sticks while walking and the image element is health and well-being. In other words, scholars focus on the consumer side of exercising the practice. Focusing on the production side of tourism, that is what material, skill and image companies combine together to form a specific tourism experience, this thesis uses Pantzar and Shove’s (2010) theoretical framework (see schematic in Figure 3 below) to develop more knowledge about tourism as practice in general, and innovation network practices, in particular.

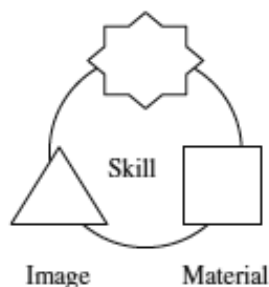


Figure 3. The core elements of practice (source: Pantzar & Shove, 2010)

As mentioned above, there is no unified opinion on what a practice is. However, this

section brings forward the central ontological assumptions shared by the practice-based studies: any practice comprises a set of elements and relations between them. Further discussion is built upon this assumption and the conception of the core elements of practice and relationships between them “as handles for empirical research” (Nicolini & Monteiro, 2017, p. 15).

2.1.2 Social nature of practice

A practice may also be complex due to its social nature, which means that an organizational practice often deviates from what it is confined to be by formal job instructions (Brown & Duguid, 1991). The social nature of practice means that a practice is always produced by a social group and emerge among people who share similar activities. Following this argument, the study assumes that an organization is constituted by one (e.g. in case of a micro or small tourism company) or several communities of practice.

The social nature of practice is described by the communities of practice literature (Brown & Duguid, 1991; Lave & Wenger, 1991) that discuss the intricacies of practice and interplay between the abstract and tacit knowledge needed to perform a practice. Thus, the main characteristic of the communities-of-practice approach that is common across the research literature is their bottom-up formation that is based on joint learning by carrying out common social tasks. According to Wenger (2000), who discusses how communities of practice can design themselves to become social learning systems, the learning process occurs in the interplay between the socially and historically embedded competence of a community and its participants' personal experiences. Further, Wenger (2000) identifies the following main elements of social learning systems: communities of practice (1), unspoken boundaries (2) and identities formed as a result of belonging to such systems (3). Communities of practice (1) are defined by a “collectively developed...joint enterprise” that requires “mutual engagement” and produces “shared repertoire” (e.g. language, routines, tools, artefacts, stories, etc.) (Wenger, 2000, p. 229). “Joint enterprise”, “mutual engagement” and “shared repertoire” attach boundaries (2) to a community of practice, which distinguish a practitioner from a non-practitioner, yet which are more fluid than, for example, distinct organizational boundaries. And finally, identities (3) are “a key structuring element of how we know” or belong to a community of practice (Wenger, 2000, p. 238).

Similarly to other industries, communities of practice in tourism can be seen as “the basic building blocks” constituting tourism companies working with, for example, outdoor activities, city sightseeing, events and performances, etc. The distinct feature of communities of practice in tourism might be related to the often small size of a tourism company, which means that a tourism practitioner may need to handle more different processes in his/her everyday activities. Some of these activities are company-specific,

for example, security measures in using outdoor equipment or preparing a meal in food tourism; while other maybe be shared with other tourism practitioners beyond company's boundaries, for example, development of a destination-specific resources and facilities or promoting tourism activities.

Similarly to participation in one community of practice, cross-boundary participation is defined by a practitioner's belonging through engagement, imagination or alignment (Wenger, 2000). While all three modes of belonging can also describe belonging to one community, both imagination and alignment may be even more important in cross-boundary participation where one is also exposed to uncommon processes and practices. This means that participation in several communities through doing things together becomes more complex and requires imagination, i.e. "constructing an image of ourselves, of our communities" in order to reflect on one's own position in that community as well as alignment of one's practices with the practices of a community to become more efficient (Wenger, 2000, p. 228).

While the social nature of practice could be addressed as a part of its embeddedness, I choose to distinguish the social dimension separately because, unlike practice embeddedness in time and space, it is a kind of embeddedness that is consciously and continuously reshaped.

2.1.3 Practice embeddedness in time and place

The recognized importance of embeddedness of an economic activity (Johannisson, Ramírez-Pasillas, & Karlsson, 2002) has been discussed in practice-based research in relation to its consequences for a practice and a community of practice (Newell et al., 2009; Wenger, 2000). From the practice-based view, tourism companies can be seen not only as constituted by communities of practice but also as participating in different communities. Similarly to communities that constitute an organization, participation in other communities of practice can be both emergent and planned/managed (Newell et al., 2009). As somewhat mentioned above, participation in other communities of practice is driven by different benefits, for example, knowledge spillovers. However, such participation is not only dependent on social settings but also historic and geographic settings, which may explain a certain trajectory of practice development. Since practices "entail an element of duration" (Nicolini & Monteiro, 2017, p. 115) and are developed around place-specific material categories, and in that way are perpetuated, both time (historical embeddedness) and place (geographic embeddedness) define certain room and certain boundaries for practice development. This means that both more active, i.e. social, embeddedness and more passive, i.e. historical and geographical, embeddedness, together with consequences such embeddedness may entail (e.g. demographic or economic), influence the past, present and future of a practice. Figuratively, it may look like Figure 4 below.

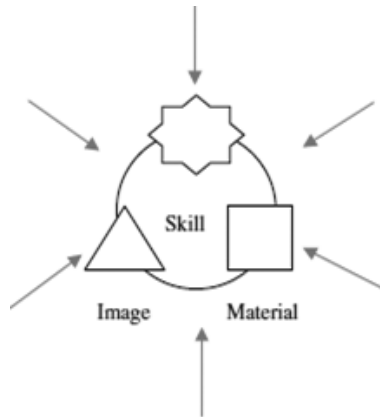


Figure 4. Practice embeddedness (adapted from: Pantzar & Shove, 2010)

This figure is meant to embrace both the composite nature of practice (as in Figure 3) and its social, historical and geographical embeddedness (expressed by the inward arrows) that predetermines both the elements of practice (arrows pointing at the elements) and relations between them (arrows pointing at the links between the elements of practice).

Such paramount importance of practice embeddedness has respective implications when several communities of practice are to interact. When we are talking about, for example, regional cooperation of tourism practitioners in the frames of their membership in the destination marketing organization (DMO), we are talking about shared practices that are embedded in the same place and time. However, a more complex collaboration locally, regionally or nationally with different types of stakeholders from the tourism industry and beyond that also has a focus on processes other than marketing may require more effort to bridge several communities. Wenger (2003) describes three types of such “bridges”: brokering, boundary objects and boundary interactions. Brokering describes people who connect several communities by introducing “elements of one practice into another” (Wenger, 2000, p. 235). Boundary objects are artefacts (e.g. documents), discourses (language) and processes (explicit routines) that are used in several practices. And boundary interactions are encounters that expose one practice to another, for example, meetings or visits.

This subsection discussed the main premises this research builds upon: a practice is constituted by a set of core elements and their organization, it is socially produced and it is always embedded in time and place. This perspective on tourism practices has important implications for company and network management. Namely, it points to the fact that practices are hard to control, as they develop from the bottom, i.e. in the everyday activities of tourism practitioners. The complex, social and embedded nature

of practices means that the idea that tourism practitioners can immediately execute innovative ideas from the above is idealized. Instead, it suggests that change towards the improvement of practices comes from particular practical challenges that practitioners face in exercising practices influenced by a number of internal and external factors, where management expectations is one of them. Therefore, a preliminary assumption is that the intended development and improvement of tourism practices by company management needs to be done in dialogue with the employees who actually implement the company's practices. Further, the importance of this assumption for understanding innovation networks is that transfer of novel elements of practice from the network to the companies might be limited when only the company's management takes part in the network activities, while for the network management, it is essential to have a good understanding of the practices of different types of network members to be able to maintain network activities. The next two subsections will further take up both the composite nature of practice and embeddedness of practice as well as implications of this for understanding innovation networks.

2.2 Innovation

This subsection provides a short review of how the understanding of innovation has evolved from innovation in manufacturing towards innovation in services (2.1) and from innovation in services towards innovation in experiences (2.2). Both service and experience sectors are discussed since the focus of the current study is on tourism, which is represented by both service-based companies, e.g. more traditional accommodation and transportation, and experience-based companies, i.e. the content and activity providers who build their business on creating experiences. While experience innovation is a relatively young research field, it clearly integrates similar development trajectories in relation to service innovation research, as the latter in relation to research on innovation in manufacturing (Sundbo et al., 2013), namely:

1. **Assimilation** of manufacturing-inherent characteristics of the innovation process in services;
2. **Demarcation** of service innovation processes from those in manufacturing;
3. And **integration** of innovation in manufacturing and service sectors under one umbrella based on shared characteristics of the innovation process.

Along the development of innovation research, understanding of what constitutes an innovation has been changing. However, what most research agrees upon is that innovation is a novel idea that must be implemented in practice. Research opinions vary on whether it necessarily has to be a radical idea and who it should be new for. A short evolution of innovation research will be summed up by the practice-based understanding of innovation used in the thesis.

2.2.1 Innovation: from manufacturing to services

Traditional innovation research is associated with the name of Joseph Schumpeter. According to Schumpeter, innovation plays a key role in economic development and is implemented by an individual entrepreneur who confronts the social inertia of the time (Schumpeter, 1934). Unlike invention that is a new idea that may originate anywhere, innovation must lead to the implementation of an idea that requires a combination of resources, knowledge and skills and that is further realized in practice (Fagerberg, 2006). In this sense, research recognized early the dynamic nature of the innovation processes. Schumpeter's position about the major role of an individual entrepreneur who has an idea and knows how to implement it based on existing resources soon became extended (Schumpeter, 1947). The latter position, which is often called Schumpeter Mark II (Malerba & Orsenigo, 1995; Schumpeter, 1947), focused on the role of large firms with solid knowledge, competencies and resources where innovation takes place in R&D departments rather than by entrepreneurial effort. Often the consequence of the innovation process by these large firms with R&D departments is that they create monopoly conditions in industries, thus, impeding the entrance of other firms.

Early innovation research discussed both the types and degree of innovation outcomes. When it comes to the types, the focus was mainly on two different types of innovation, i.e. product innovation and new ways of production (Schmookler, 1966). Schumpeterian typology includes five different types of innovation: “[T]he introduction of a new good...or a new quality of a good [,]... a new method of production, ...[T]he opening of a new market,...[T]he conquest of a new source of supply or raw materials or half-manufactured goods,...[T]he carrying out of the new organization of any industry...” (Schumpeter, 1934, p. 66). As to degrees of innovation, the outcomes of innovation processes may result in incremental improvements or change that is more radical.

While developed economies are “definitively service economies...[as] services represent more than 70% of employment, and ... more than 50% of overall final demand” (Gallouj, 2010, p. 990), it was not until two decades ago that service innovation became a field of research on its own (Gallouj & Weinstein, 1997). A service industry is understood as a totality of companies whose main output cannot be classified as physical goods. Namely, a service is “a change in the condition of a person, or of a good belonging to some economic unit, which is brought about as the result of the activity of some other economic unit, with the prior agreement of the former person or economic unit” (Hill, 1977, p. 318). As discussion of service innovation developed, a number of researchers came to question the taken for granted assumption of the traditional innovation research about similarity of innovation processes in services and manufacturing. As the result of this discussion, two main approaches within service innovation research have been identified (Coombs & Miles, 2000; Gallouj, 2010), namely “assimilation” and

“demarcation” approaches. While “assimilation approach” considers service innovation as similar to innovation in manufacturing, the “demarcation approach” considers service innovation distinctive and as “following dynamics and displaying features that require new theories and approaches to measurement from those developed in the context of manufacturing” (Tether, 2005, p. 154,155). The proponents of the “demarcation approach” suggest to also distinguish the “inversion approach” that sees “service industries as being sources of innovation across the whole economy”, thus denying superiority of innovation in manufacturing (Djellal, Gallouj, & Miles, 2013, p.101). The discussion below retains the prerogative of the two main approaches of “assimilation” and “demarcation” in order to arrive at the latest development in service innovation research, namely “integrative approach”, where this thesis seeks to contribute. The “integrative” (also “synthesis”) approach, means that although service innovation has several prominent characteristics, it is not completely different from innovation in manufacturing, and thus represents attempts to build an overarching innovation framework that cover all sectors (Gallouj and Savona, 2009; Tether, 2005).

Assimilation approach: from manufacturing to service

As mentioned above, the assimilation approach (Coombs & Miles, 2000) assumes that innovation in services is fundamentally similar to innovation in manufacturing, where technological innovation plays a central role. It means that the innovation process is mainly related to the production of material products, and services are rather seen as subsidiary to that of manufacturing where innovations originate. This more traditional view on innovation is also often associated with a “discrete step-wise development and production of a new product or process”, which implies a change in a standardized production unit towards its improved version (Tether, 2005, pp. 156, 157). Stable production periods are interrupted by the process of change that is most often required as a result of competition to maintain market position.

Such superior position of innovation in manufacturing over service innovation had, for a long time, been held by the public policies and is reflected, for example, in early versions of the European Community Innovation Surveys (CIS, CIS-2) (Gallouj, 2010; Tether, 2005). No fundamental change to evaluate innovativeness of the service sector was undertaken, as services were considered less-innovative and little involved with R&D, and thus would not reflect the effort of the public policies meant to support innovation (Gallouj, 2010).

Later, the proliferation of the assimilation approach and attributing of innovation in service to technological type became related to the wide dissemination of technologies in the service sector, e.g. information technology (Gallouj, 2010). However, it is not only due to technology-intensive solutions that innovation in services began to be recognized. Service innovation demonstrates a number of distinctive features that are

registered by the demarcation approach.

Demarcation approach: towards service-specific characteristics of the innovation process

Over the past two decades, service industries, including tourism, became “gradually recognized for their measurable innovative potential” (Hjalager, 2010, p. 1). The major difference in service innovation is related to the type of service output that is not physical, which makes it harder to measure whether and how a service has been developed. Service innovation is recognized as being more strategic, rather than R&D centred (Toivonen and Tuominen, 2009). Innovativeness of service companies is positively correlated with a widely varying size of service companies (Rønningen & Lien, 2014). And although national and international innovation measurement systems (e.g. CIS) were originally built upon the traditional concept of innovation with a focus on manufacturing, they become eventually adjusted to include services. However, further development is needed to better capture innovation in services (Rønningen & Lien, 2014).

Service companies often develop their services together with customers in order to better respond to customer needs and create more value for both the customer and the company, which may result in co-innovation. Within the “co-innovation” model, customers are given “active roles in all innovation activities, from idea generation to prototyping, seeking in this way a positive impact in the degree of innovativeness in the next generation of products and services to be launched into the market” (Romero & Molina, 2011, p. 451). Knowledge of the “lead-users” can, among other things, mitigate companies’ challenges related to “uncertainties about customer needs and a lack of clear product concepts, relevant technologies, and trust” (Sørensen & Mattsson, 2016, p. 9). These challenges, encountered in the early phase of innovation process and associated with the “fuzzy front-end” of innovation, may “have an impact on the success and quality” of innovation outcomes (Sørensen and Mattsson, 2016, p. 9). Personalized services, i.e. services that are purposefully developed for a specific customer, are tailor-made, which complicates the comparison between two services of the same kind as well as measurement of innovative solutions in their production. However, sometimes service innovation outcomes can appear not to be “the results of a deliberate activity at all” (Toivonen, 2011; Toivonen & Tuominen, 2009, p. 887), which is associated with an *a posteriori* innovation model that is recognized as innovation only when the innovative result is achieved.

Thus, the demarcation approach derived from more recent service innovation research shares a more broad view on innovation. It also supports the idea that “the innovation process is not serial, but reiterative and requires cross-functional activities” (Toivonen & Tuominen, 2009, p. 6).

2.2.2 Innovation: from services to experiences

Over the past decade, research on experience innovation in general (Fuglsang, Sundbo, & Sørensen, 2011; Sundbo et al., 2013) and in tourism research, in particular (Clausen & Madsen, 2014; Sørensen, 2004), has increased. Discussion of experience innovation follows almost a two-decade old discussion of the experience sector as an apparent development of the modern economy away from the production of commodities, goods and services towards experiences (Pine & Gilmore, 1999). Similar to the discussion of how services are similar to and different from goods, research on experience economy focused on similarities and differences between experience and service industries. This led to a number of assumptions that can be attributed to assimilation and demarcation perspectives, as shown below. Although, there might be a reservation about whether experience innovation should be compared to distinctive characteristics of service innovation as in demarcation approach or characteristics also common for manufacturing industries as in assimilation approach. To avoid leaving out important characteristics of experience innovation, I shall further follow the second option.

Assimilation approach: from services to experiences

This section discusses how the characteristics of service sector innovation assimilate with experience innovation. Some features of service innovation can indeed describe experience innovation. As services in relation to goods, experiences can be seen as a part of production and consumption of goods and services. When an experience is “add-on to goods or services”, such experience is considered to be from a secondary experience sector (Sundbo, 2009, p. 432). An example from tourism includes the experiences added on to more traditional services, e.g. accommodation and transportation companies that consider themselves service providers.

When it comes to the driving forces of innovation, experience innovation seems to share some of the same origins as manufacturing and service innovation, namely entrepreneurship and technological development. In terms of entrepreneurs, tourism might not be the best example, due to often scarce resources and competences of tourism entrepreneurs and tourism small and medium enterprises (SME)-segment in general (Rønningen & Lien, 2014). However, Hjalager (2010, p. 4) suggests that even though it might mainly be about innovation on a small-scale, lifestyle entrepreneurs, for example, “may be innovative”. Further, technology-enabled innovation is important in the experience sector because technology, particularly ICT, plays a significant role in production and consumption of experiences (Sundbo et al., 2013) However, similar to a number of service industries, experiences are personalized, which explains why innovation driving forces are not limited by the technology-push paradigm (Hjalager, 2010) but can also be necessitated by changes in market demand and are user-driven.

Similarly to service innovation, the degree of experience innovation varies from smaller improvements to a radical change where all or at least some of the elements are new; experience innovation often represents novelty to the market and experience companies (Sundbo et al., 2013, p. 239).

Demarcation approach: towards experience-specific characteristics of the innovation process

Experience-based companies are also considered to be a separate sector in itself. When a company's primary production output is an experience, it is a part of a primary experience sector (Sundbo, 2009). Tourism is, for example, considered to be a primary experience sector, and as a result, experience economy literature is replete with examples from the tourism sector (Boswijk, Peelen, & Olthof, 2012). Examples include nature-based tourism, e.g. hiking, rafting or fishing or culture-based tourism, e.g. cultural events and arrangements.

While research on experience innovation recognizes experience companies as more innovative than service companies (Sundbo et al., 2013), "knowledge about innovation in the experience sectors is embryonic" (Eide & Mossberg, 2013, p.248). What the experience innovation literature seems to agree upon is that unlike services, experiences are associated with the mental journey of a customer (Sundbo, 2009), which is stimulated by "a unique, personal, out-of-the-ordinary and memorable event" (Nilsen & Dale, 2013, p.80). This means that an experience appeals to a person's emotional needs rather than being a problem-solving solution, which is often the case with services. In that way, experiences are even more personalized than services, since an experience should match one's own background and preferences to qualify as a good experience. In addition, research suggests the following three characteristics that define the distinctive nature that an experience acquires in the process of production and consumption: being a combination of learning, entertaining and improving social gathering in the process of consumer immersion (Hansen & Mossberg, 2013; Sundbo et al., 2013). Research suggests that "the experience firms which grow the most provide total concept" (Sundbo et al., 2013, p. 232). This may imply that an experience is multidimensional in its characteristics (e.g. authenticity, storytelling, involvement, etc), it is bound to a company's values and business processes (e.g. production and marketing) and finally, it is coupled with other experiences within the company or experiences of other companies. Thus, following the market shift where the demand for experiences is growing, companies reassess their concepts, i.e. "general framework for the products" (Sundbo & Hagedorn-Rasmussen, 2008, p. 94). In tourism, this can mean that concept of a product unites the production with "storytelling about the concept and the firm, market behaviour and marketing", and often describes "bundles of products" of a company or several companies (Sundbo & Hagedorn-Rasmussen, 2008, p. 94). However, while total experiences are particularly important in tourism where a customer's immersion is only possible upon his/her phy-

sical presence, experience innovation can be highly fragmented, located in decentered processes (Bærenholdt & Haldrup, 2006).

As a result, different combinations of push- and pull-oriented processes may become driving forces for an experience innovation, which explains the need for a more holistic approach to understand experience innovation. In addition, research suggests that there might be other push-oriented factors that facilitate innovation in the experience sector since experience innovation is, for example, often produced in the process “intuitive (non-systematic) artistic creativity” based on individual ideas of an artist (Sundbo, 2009, p.452).

2.2.3 Integrative approach

In discussing the integrative approach, it is important to remember that “treating goods and services in the same way” does not mean “assimilation”, but “integration, which synthesizes the specificities of goods and services” and “explain[s] both technological and non-technological innovations” (Gallouj, 2010, p. 998). One of the attempts to synthesize goods and services is a characteristics-based approach (Gallouj & Weinstein, 1997). The main idea is to decompose a product or a service into several interrelated vectors of characteristics: final/service characteristics, material/immaterial technical characteristics, provider’s direct competences and client’s competences. Different characteristics that describe a vector are meant to define both common and particular characteristics of products/services. Additionally, the relationships between the different vectors may describe different processes in the case of products and services. And the contribution of the approach is, then, in describing innovation as both designed and emergent: “dynamic of characteristics, which functions according to a simple arithmetic: addition, subtraction, association, dissociation, formatting of characteristics” (Gallouj, 2010, p. 996).

Another substantial effort to describe the changing nature of economic exchange where the boundaries between goods and services are blurring is work by Vargo and Lusch (2004), which describes this as “a new dominant logic for marketing” or “service-dominant logic”. The main idea here is a shift away “from the exchange of tangible goods (manufactured things) and toward the exchange of intangibles, specialized skills and knowledge, and processes (doing things for and with), ... [that is] toward a more comprehensive and inclusive dominant logic, one that integrates goods with services” (Vargo & Lusch, 2004, pp. 1-2). This logic is based on 10 premises as shown in the table below (Vargo & Lusch, 2008, p. 7):

Table 4. Premises of the service-dominant logic (adopted from Vargo and Lusch (2008, p. 7))

No	Foundational premise
FP1	Service is the fundamental basis of exchange
FP2	Indirect exchange masks the fundamental basis of exchange
FP3	Goods are a distribution mechanism for service provision
FP4	Operant resources are the fundamental source of competitive advantage
FP5	All economies are service economies
FP6	The customer is always a co-creator of value
FP7	The enterprise cannot deliver value, but only offer value propositions
FP8	A service-centered view is inherently customer oriented and relational
FP9	All social and economic actors are resource integrators
FP10	Value is always uniquely and phenomenologically determined by the beneficiary

Vargo and Lusch (2008, p. 4) sum up all the premises by saying that “all economies are service economies and ... all businesses are service business”. Innovation-wise, this would mean thinking “in new and innovative ways...[T]hat is, innovation is not defined by what firms produce as output but how firms can better serve” (Vargo & Lusch, 2008, p. 5).

Synthesizing characteristics of innovation in different sectors of economy

With the progression of economic development towards experiences (Boswijk et al., 2012; Pine & Gilmore, 1999), it seems that the boundaries are further blurred between services and experiences, as a good experience is expected to be an output of produced goods, services and experiences. It needs to be further discussed whether this can signify a shift towards experience-dominant logic and whether and which foundational premises of the service-dominant logic can still hold for experiences. Meanwhile, this subsection will sum up the stretch in specificities of goods, services and experiences and suggest a practice-based view on innovation that has the potential to describe innovation in different sectors of economy. This framework will be taken further and tested by data from both service and experience companies in the tourism industry.

Understanding of innovation has widened from a discrete step-wise development and production of a new product or process in manufacturing towards “continuous innovation” driven by new customer needs and new company’s capabilities in services (Tether, 2005, p. 157). Further, experience innovation is understood “as systemic and interactive process” (Clausen & Madsen, 2014), where a new or significantly changed idea is being implemented into practice (OECD, 2005) based on internal and external

resources and competences. Understanding of both types and degrees of innovation has become broader. Although typology of innovation in services is largely built upon Schumpeterian categorization, i.e. product or service innovation, process innovation, managerial innovation, management innovation and institutional innovation (Hjalager, 2010, p. 4), “there is often a close interplay between different categories of innovation” both in services and experiences. In order to be able to describe a combined or bundled innovation, Gallouj and Savona (2009) suggest studying the models of innovation as a process: radical, improvement, incremental, ad-hoc, recombination and formalization innovation. Rooted in the characteristics-based approach (see above), the latter seems to accommodate both the types and degrees of innovation in services and experiences with the general trend towards accounting any change that is novel to a company as an innovation. Further, understanding of innovation has stretched from an entrepreneurial effort of business implementation of an invention (Schumpeter I) and innovation in internal R&D departments (Schumpeter II) towards what is called by some as the “Schumpeter III approach”. This evolution in Schumpeter’s work is associated with openness and active interactions with customers, other companies, R&D and other public organizations in innovation work in order to better respond to “change-processes in the market and society” (Fuglsang & Sundbo, 2003). While interactions beyond organizational boundaries can be a source of novel ideas or facilitate specificities of service and experience innovation (Clausen & Madsen, 2014; Rønningen & Lien, 2014), they are also often essential for many SMEs in services and experiences that have a limited capacity to innovate by themselves. In tourism, such initiatives can qualify as an institutional innovation, that is “a new, embracing collaborative/organizational structure or legal framework that efficiently redirects or enhances the business” (Hjalager, 2010, p. 3), and will further be developed in the next subchapter (Network).

Towards practice-based lenses on innovation

When discussing how the practice-based approach can contribute to integrative approach to innovation, the intention is the same, i.e. to discuss whether it can offer a solid framework that can be used for innovation of goods, services and experiences. The main argument here is that regardless of the type of the output, any organization can be analyzed by studying its practices, which is somewhat in line with studies that suggest studying innovation as a process (Gallouj & Savona, 2009). The ontology of practice perspective is, however, more complex because studying innovation over time also implies the development of understanding of how the existing practices of a company, which are resistant to change, gradually reshape to form new practices.

Grounded in the thesis that new knowledge and learning, as the prerequisites of organizational innovation, take place in social processes (Vygotsky, 2012), which makes them inherent part of practices. Organizational knowledge and learning “must be vie-

wed as forms of social expertise, that is, as knowledge in action situated in the historical, social, and cultural contexts in which it arises and embodied in a variety of forms and media” (Nicolini et al., 2003, p. 3). Thus, organizational knowing and innovation are nested in the ongoing practices of a company, which are defined as “relational, mediated by artifacts, and always rooted in the context of interaction” (Nicolini et al., 2003, p. 3). The connection between working, learning, and innovating within a community of practitioners has also been emphasized in the practice-based research for several decades (Brown & Duguid, 1991; Pantzar & Shove, 2010). Learning that occurs among engaged individuals who construct solutions to common challenges, create and communicate knowledge in practice (Orr, 1996; Tyre & Von Hippel, 1997) leads to developing community-specific tacit knowledge. Although this points at practice being dynamically changed, research has also recognized that cultivation of the tacit knowledge only may lead to the omission of codified knowledge that is more likely to lead to a more radical innovation. Yet, the main focus in practice-based research is made on innovation being rather incremental, bricolage, a result of improvisation and adaptation (Brown & Duguid, 1991).

For example, the concept of bricolage has been increasingly applied in service innovation research. Bricolage can be defined as “solving problems and taking advantage of opportunities by combining resources at hand” (Witell, Gebauer, Jaakkola, Hammedi, Patricio, & Perks, 2017, p. 291). As innovation research widens understanding of innovation to include incremental innovation, a question of difference between an innovation and an improvement arise. Referring to previous research, Fuglsang (2010) questions whether an innovation can indeed be distinguished from an improvement by being always intentional. It is not necessarily so, it can be both intentional and planned, and unintentional outcome of trial and error process or recognition of innovation in retrospective (Toivonen, Tuominen, & Brax, 2007). Therefore, understanding of innovation may include “more experimental, heterogeneous and emerging attempts to respond to problems and cues in a given context and gain importance and replicability for invented elements” (Fuglsang, 2010, p. 73). These “invented elements” or solutions can be a result of a “novel (re)combination of resources” by SMEs in service sectors that often face resource constraints (Witell et al., 2017, p. 290). This is in line with the position of this thesis that sees innovation not only as a recombination of new resources, but also new skills required to handle new resources as well as new images of practice that can be a more long-term endeavour and require both new resources and skills.

Although earlier practice-based studies are mostly preoccupied with studying technological innovation within an organization, application of practice-based understanding of innovation is not uncommon in service and experience industries and also beyond organizational boundaries (e.g. tourism by Fuglsang and Eide (2012)). Service-centred

research argues that “service innovations are not only incremental and continuous improvements, but can be both radical and disruptive, creating a leap in customer value” (Witell et al., 2017). Thus, addressing the question of manageability and nurturing of knowledge creation and learning, a number of practice-based studies argue that a more radical innovation is also possible in the interstices across communities (Newell et al., 2009; Swan and Scarbrough, 2005). The management implications of the practice-based perspective on innovation are then not only about the nature of innovation that can be incremental and continuous but also about how it is done. Namely, the traditional linear models of innovation (Godin, 2006), where there is an idea that is further developed, implemented and diffused may fail. Instead of a planned top-down innovation, managers should support innovation by opening up and suggesting alternative combinations of resources, skills and images of practice to their employees by, among other things, involving them into activities beyond home organizational practices.

Since practices are continuously “reproduced and negotiated” (Nicolini et al., 2003), this implies that change in either of practice characteristics may lead to innovation. This thinking may remind much of the characteristic-based approach to innovation (Gallouj, 2010) or seem to be little new from the Schumpeter’s definition of innovation as “new combinations” of existing resources in dynamic economy. However, this thinking goes further as it looks upon innovation as being integrated with a company’s ongoing practices. Thus, it makes it possible to find out where an innovation originates, how it develops and how it is integrated with the overall practices of a company. In other words, the intention here is not simply to register the newness or shift from an old routine to a new routine but to describe the process of how old routine becomes a new routine. In this way, it is a more holistic view on innovation.

This thinking about innovation reflects genealogic approach to studying practices (Nicolini & Monteiro, 2017) and is operationalized by using Pantzar and Shove (2010) framework presented in the first section of this chapter. Genealogic approach to studying practices has its “focus on the development of discrete practices: how concerted accomplishments become a regime, how it is perpetuated and changed, and why it disappears” (Nicolini & Monteiro, 2017, p. 120). In this view, the practice-based approach can offer a new understanding of the long-term, continuous and complex innovation process defined by “changing combinations of symbolic and material ingredients and of competence or know-how” (Pantzar & Shove, 2010, p. 447), which have to be integrated in a particular way in order to form a new practice. It is also according to Echeverri and Skálén (2011) who study interactive value creation, that different combinations of the elements of practice can lead to co-creation and co-destruction of practices. This is schematically presented in Figure 5 below: from a practice being constituted by its core elements (in the left part of the figure) towards the dynamics of formation, reproduction and deformation of practices (in the right part of the figure).

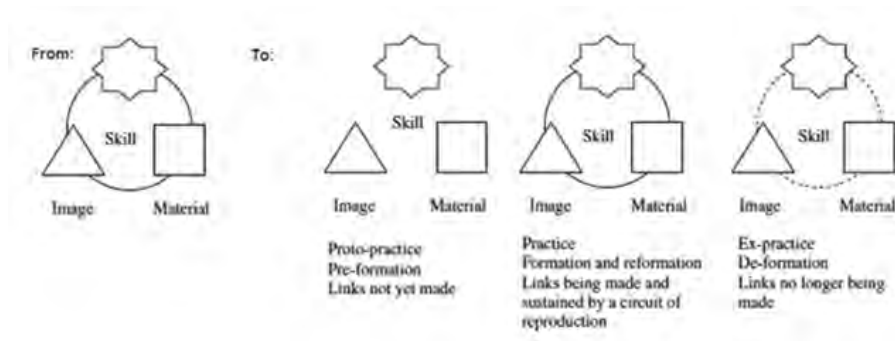


Figure 5. *Dynamic nature of practices (adapted from: Pantzar & Shove, 2010)*

Since Pantzar and Shove (2010) conduct consumption research meaning that the elements of practice are seen from the standpoint of a consumer, some change in the interpretation of the elements of practice is needed to be applied in the research on the production side. In order to acknowledge the importance of the external environment in the innovation work of companies and different degrees of change, it is assumed that a practice and its elements can also be influenced by its environment. Therefore, in the current research the material element is extended to include organizational and external resources, the skill element includes the skills and competences of a company's employees as well as skills and competences that can be acquired beyond organizational boundaries, and finally, the image element is about the main objective pursued by a company and its practices.

This subsection has suggested what innovation can mean in the practice-based perspective. Namely, innovation is defined by the integration of new practice elements into a practice, creating new configuration of interdependent practices and making new practices durable. It can be questioned why the practice-based perspective is chosen to be generic alternative of the integrative innovation approach that unites different sectors of economy when it emphasizes that practices are inseparable from the context where they take place. While the context is indeed important and hence innovation done differently, practice as an analytical category can be used in all sectors. Besides, innovation does not have to be either radical and make a strategic difference or incremental and add up to a larger change over time, it can be both. A lot of radical innovation is indeed argued to start from small incremental bricolage-like innovation when one zooms in. When it comes to application of the practice-based perspective on innovation in tourism, recombination of different elements of practice can be problematic due to resource constraints (Witell et al., 2017) that tourism firms face. As the result, they often need to cooperate in order to innovate. A cooperation facilitated by participation in national innovation programmes may, for example, provide new purposes, understandings and configura-

tions for tourism practitioners, hence, playing the dialectical role of an intermediary.

2.3 Network collaboration as a driver of innovation

2.3.1 Collaboration and its different forms

As noted above, research has argued that collaboration is important for innovation, including in the tourism industry (Clausen & Madsen, 2014; Rønningen & Lien, 2014). Some researchers relate this importance to the small, medium and micro size of tourism companies as being the most common in the industry, meaning that there is limited capacity of these companies to recognize and respond to new demand trends by themselves. Therefore, the SMEs are at the same time the “economic lifeblood of the sector” and “the laggards that prevent innovation and growth” (Thomas, Shaw, & Page, 2011, p. 963). Second, many tourism SMEs are driven by lifestyle entrepreneurs who have high competence in a tourism activity but less professionalism in managing the company (Mattsson et al., 2005), meaning that they often require external competences. Further, external competences may also be important for training employees with a low average education level (Rønningen and Lien, 2014) and handling high turnover due to seasonality, and as a result low attractiveness of seasonal or part-time employment in the industry. Tourism companies are also dependent on each other because they belong to a particular destination, and “destinations are amalgams of tourism products, offering an integrated experience to consumers” (Buhalis, 2000). In this sense, many firms contribute to the tourists’ experiences. This latter argument is also used in the growing body of experience tourism research, where it is argued that there is a need to produce total experiences of destinations, and adaptation to ever-changing market demand leads to an increasing level of collaboration in marketing, sales, productions, packaging, etc. (Alsos et al., 2014). These challenges have led to the increased engagement of tourism companies into collaboration.

The goals of collaboration differ greatly. Theories of inter-organizational collaboration, for example, find that it is motivated by the following (Smith et al., 1995, pp. 17-18) (with respective examples from the tourism research in the parentheses):

- economic or other benefits that follow from inter-organizational exchange, where gains from a transaction exceed costs (e.g. Tremblay, 1998);
- non-economic benefits, such as “value or status similarities and differences, complementary needs, aspects of personality, goal congruence, and information needs” (Smith et al., 1995, p. 18) (both current and previous category, see e.g. Bramwell and Lane (2000));
- as a solution to power/conflict struggles caused by homogeneity or heterogeneity of “goals, values, and resources” (Smith et al., 1995, p. 18) and related

- to that perceived “injustice or inequities” (e.g. Fallon, 2001);
- perceived necessity of “conformity, consistency, and the creation of norms of cooperative behaviour” (Smith et al., 1995, p. 18) in relation to the legitimate forms (e.g. Rivera, 2004);
 - by one’s position “in terms of aggregated conditions” created by different social structures (i.e. groups, organizations or networks) varying with regard to “participants, heterogeneity and homogeneity, distance, history, and power” (Smith et al., 1995, p. 19) (e.g. Sørensen, 2007).

These potential benefits that fuel collaboration are described in different theoretical positions within inter-organizational collaboration with respective application in the tourism research. However, often the complexity of collaboration and diversity of stakeholders and their interests requires a combination of theoretical lenses to explain the drivers of collaboration. The last driver of collaboration, i.e. one’s position in a particular social structure, is a more aggregated driver, meaning that it may include different types of benefits following from such position. This stream of research that, among other things, discusses social capital and its organization in a collaborative structure has also been commonly related to the social learning processes and innovation (Borgatti & Foster, 2003; Sørensen & Fuglsang, 2015). This theoretical development runs in parallel with the development in the innovation theory, where open innovation is a popularized version of theories that have demonstrated that innovation is an interactive and collaborative process (Chesbrough, 2003). It is also in line with the above-mentioned shift towards Schumpeter Mark III, i.e. “a new mode of innovation” as an interactive process among many and changing actors, “where new mechanisms of creativity and diffusion of innovation are becoming important, and where market mechanisms and social mechanisms are blended in new ways” (Fuglsang, 2008, p. 12). By saying that collaboration is a driver of innovation, it does not mean that internal innovation processes like in-house R&D, employee-driven innovation (Engen, 2016) or management (Sundbo et al., 2013) are unimportant, yet internal and external processes are intertwined.

When it comes to the forms of collaboration, there are different external sources of innovation, e.g. customers, competitors, conferences, public bodies, consultants, researchers, etc. (Clausen & Madsen, 2014). Therefore, there also different forms of collaboration between different stakeholders. Some researchers focus on customer collaboration and value co-creation with customers (Edvardsson, Tronvoll, & Gruber, 2011; Grönroos, 2011). However, the main focus of this thesis is on collaboration on the production side, which describes mainly interactions between the companies and other relevant stakeholders that contribute and facilitate such interactions, e.g. public bodies and research institutions.

Drawing on research on collaboration for innovation in general, several forms of

collaboration that have previously been employed in research can be distinguished. Collaboration may take place in a dyad, community of practice, network, destination or innovation system. Dyadic collaboration describes the exchange processes in “long-term” and “working” business relationships between two companies (Anderson & Narus, 1990). While empirical research often demonstrates wide spread of dyadic form of collaboration in tourism, the use of this research strategy is quite limited in tourism research, for example, the tourism planning model (Sautter & Leisen, 1999). Communities of practice describe a social learning system where knowledge is acquired by practitioners in the process of being involved in a common task (Wenger, 2000). This research strategy has only recently been used in tourism research to develop a more nuanced, process-like understanding of innovation (Fuglsang & Eide, 2012; Heemstra, 2015). The network strategy, which is probably most common strategy for studying collaboration about innovation, describes the social structure denoted by nodes, i.e. actors, and ties between them, through which new knowledge can be transferred (Burt, 1992; Granovetter, 1973). The use of the network research strategy (Borgatti & Halgin, 2011; Powell, White, Koput, & Owen-Smith, 2005) is also quite common in tourism research (Baggio et al., 2010; Sørensen & Fuglsang, 2015). The destination research strategy is one of the most common in tourism research and often unites the elements of both communities of practice and network strategies, but is necessarily limited to a particular geographic area (Framke, 2002; Hjalager, 2000). And finally, the innovation system is a more systemic research strategy for studying innovation processes and respective policies of the support structures for innovation that take place in the relationships between different levels of analysis due to their interdependencies (Edquist, 1997; Nelson, 1993). The innovation systems research strategy has also been used on a more local level in the tourism context (Mattsson et al., 2005; Prats, Guia, & Molina, 2008).

While earlier research discussed mainly small-scale collaboration in the manufacturing industries (Anderson & Narus, 1990), later research deals with the collaboration of various scale in service and experience industries (Sundbo et al., 2013). Different types of collaboration vary in terms of knowledge infrastructure in geographical space, i.e. whether a specific type of knowledge can be transferred regionally, nationally or globally: “tacit knowledge transfer is confined to local milieus whereas codified knowledge may roam the globe almost frictionlessly” (Bathelt, Malmberg, & Maskell, 2004). Therefore, while the contacts “outside of the local industrial milieu” are important for initiation of the innovation process (Asheim & Isaksen, 2002, p. 77), local resources and networking are crucial for the realization of such process. Research demonstrates that industries and separate companies within the industries largely differ in the way they exploit their interaction practices and the way they engage in different types of collaboration (Pavitt, 1984; Sundbo, 2009). As the scale of cooperation grows, it becomes harder to secure the commitment of the partners and therefore, collaboration often requires formal status,

i.e. “characteristics of contractual obligations and formal structures of control” (Smith et al., 1995, p. 10). However, formal relations may also evolve into informal relations (Ring & Van De Ven, 1994).

While the choice of the strategy of analysis is guided by the main research objective, which in this case is to learn about the dynamics of innovation network practices, it must also be favourable for explaining the empirical phenomenon.

2.3.2 Development and orchestration of innovation networks: state of the art

As mentioned above, networks are one of the forms of collaboration that have become commonly associated with learning and innovation (Sørensen & Fuglsang, 2015). Research on service and experience innovation networks has developed in a similar tradition as networks in manufacturing and high-tech industries (Baggio & Cooper, 2010; Owen-Smith & Powell, 2004). This research tradition sees networks as a “resource” of, among other things, social capital. Networks and their importance in giving access to other types of resources, including financial resources and new knowledge beyond organizational boundaries, have also been discussed in tourism research (Halkier, 2014; Sørensen, 2007).

This research tradition is built upon the understanding of a network as the configuration of actors or “nodes” and ties between them. This research tradition is based on two influential theories: the strength of weak ties (Granovetter, 1973) and the structural holes theory (Burt, 1992). The main idea behind the two theories is that novel or non-redundant information is possessed by the two individuals who are not connected by the strong ties or not a part of dense ego network, i.e. a network around a given node (Borgatti & Halgin, 2011). Thus, social network theory describes structural network properties, e.g. density or centrality of network actors, and relational properties, e.g. strength of ties or governance, as well as their role in knowledge flow, learning and innovation. This perspective on networks represents the research tradition conceptualized as “networks as channels” of knowledge flow, which means that both local and distanced cooperation may serve as knowledge sources (Newell et al., 2009).

A wide proliferation of research on innovation networks that describe relationships between a number of different and changing actors with the main purpose of producing innovation, has contributed to different aspects that innovation networks can be classified by. More generally, the definition of an innovation network as a combination of actors and ties between them is only one of two complementary conceptions of the innovation networks from the morphological perspective. Innovation networks can also be conceived of as a “mode of coordination between economic agents...based on trust, reputation and mutual dependence” that surpasses pure hierarchical and market modes

of organization (Djellal & Gallouj, 2013, pp. 5-6). In addition, innovation networks can be classified by the main types of actors that represent the network and relationships between them. This, among other things, includes aspects like centrality of an actor, a network's density, strong/weak ties etc. (Borgatti & Foster, 2003). According to Green et al. (2013, p. 121) networks can vary depending on the mode of formation, i.e. planned or spontaneous (Doz, Olk, & Ring, 2000), that "has major implications for the composition, structure and evolution" of a network. Further, the development of innovation networks is common to be described as a life cycle of network formation, development, implementation and closure (Green et al., 2013; Sundbo, 2010). And finally, innovation networks are described by the type of innovation and innovation activities they work with as well as results (Powell et al., 2012; Sundbo, 2010).

Development of innovation networks over time

Recent research on innovation networks has repeatedly emphasized the need to study the network phenomenon in dynamics (Ahuja et al., 2012; Green et al., 2013). It is argued that static understanding of innovation networks has limitations: it does not pay attention to how "things are continually moving about, being reshuffled to be used in different ways", or more figuratively, we "miss out on seeing where the dust came from or how it settled" (Powell et al., 2012, p. 434). Further, Ahuja et al. (2012) argue that the genesis and evolution of networks is critical to forming a better understanding of network outcomes, formation of beneficial network structures, network roles at different levels, and network advantages and constraints for network members. Furthermore, Clegg et al. (2016, p. 281) invites research that would "help advance our ability to conceptualize, measure, manage and advise network emergence and evolution within and across organizational boundaries, and seek to contribute to a growing understanding of the impact of such networks on organizations and society".

Although research interest is undoubtedly caused by the proliferation of networks, the research calls for dynamic studies of inter-organizational collaboration are not really new, as they already exist in organizational and early inter-organizational research. Understanding the network phenomenon as one of the forms of inter-organizational collaboration "becomes most instructive to an investigator when s/he understands the dynamic processes that generated the contemporary [network] configuration" and that they are built upon understanding of "the contextual factors impinging on the entire network and the evolutionary processes" characterizing network activities and relationships between its members (Whetten, 1981, p. 8). Both the factors and the evolutionary processes are addressed in the traditional research on collaborative dynamics, which is often built upon one of the organizational change perspectives: evolutionary, teleological, dialectical or life-cycle perspectives (Van De Ven & Poole, 1995). (1) The evolutionary theories, originally described organizational change (Hannan & Freeman, 1977),

have been applied to explore the relational and structural network change through node distribution, strength of ties, centrality, similarity of partners, expansion etc. (Ahuja et al., 2012; Ness, Aarstad, Haugland, & Grønseth, 2014; Powell et al., 2012). (2) The teleological perspective colligates several types of research emphasizing goal-orientedness and explains the process of change by attachment to specific goals through goal settings, implementation, evaluation and modification of goals (Chakravarthy & Lorange, 1991). This perspective is also applied in network research from the perspective of member units, management or policymaking (Håkansson & Snehota, 2006; Nilsen & Gausdal, 2012; Pforr, 2006). (3) Dialectical perspective describes change through conflicting interests, values, forces and events and is used in the network literature focusing on power and conflict imbalance in inter-firm relations (Dredge, 2006). (4) Life cycle theory (LCT) of organizational change is one of the most applied theories available to explain the life cycle of products and organizations through the process of startup, growth, maturity and decline: each stage results from a previous stage, and the stages make up the final state of the unit of change (Quinn & Cameron, 1983). LCT also serves as an analytical tool of inter-organizational cooperation on the level of destination (Nordin & Westlund, 2009) or network (Green et al., 2013; Sundbo, 2010, Nilsen & Gausdal, 2017). The four organizational change perspectives are summed up in Table 5 below.

Table 5. Theoretical perspectives of organizational change with respective examples in the network literature (classification of the theories adopted from: Van de Ven & Poole, 1995)

	Theories of organizational change	Stages	Criteria of change	References
1.	Evolutionary	i. emergence ii. selection iii. retention	Endogenous: - Structural change - Node distribution - Strength of ties - Centrality - Similarity of partners - Expansion Exogenous factors: social, political, economic patterns	Ahuja et al. (2012) Ness et al. (2014) Powell et al. (2012)
2.	Teleological	i. goal setting ii. implementation iii. evaluation iv. modification of goals	Endogenous: - Direction (focus) of a member unit/policy making/management perspective - Time patterns - Budget Exogenous: environmental laws and constraints, e.g. resources	Håkansson and Snehota (2006) Nilsen and Gausdal (2012) Pforr (2006)

	Theories of organizational change	Stages	Criteria of change	References
3.	Dialectical	i. Status quo ii. Antithesis challenges current state of affairs iii. Synthesis (Turning point happens at the moment of conflict)	Conflicting interests, values and forces Power imbalance	Dredge (2006)
4.	Life cycle	i. start up ii. growth iii. maturity iv. decline	Endogenous: - The initial underlying form/organization of an entity Exogenous: are only secondary to immanent internal logic	Green et al. (2013) Sundbo (2010)

As shown above, the four organizational change perspectives have been used in network research and have advanced our understanding of innovation networks by describing their development in a predictable manner through certain sequences of stages (Green et al., 2013; Sundbo, 2010). This, among other things, has informed network members and policy organizations when it comes to what can be done in particular periods of network development in order to facilitate network relationships and processes towards innovation. Nevertheless, it has been argued that understanding of innovation network management as a static phenomenon still prevails and, thus, we have little knowledge about innovation network management over time (Heidenreich, Landsperger, & Spieth, 2016; Nilsen & Gausdal, 2017).

Orchestration of innovation networks over time

Management of innovation networks differs from firm management. Due to their complex, fluid and fragile nature, networks are often viewed as loosely coupled systems (Orton & Weick, 1990). According to Weick (1976, p. 3) a loose coupling characteristic can be defined as “a situation in which elements are responsive, but retain evidence of separateness and identity”. The implication of this characteristic for the network management is that it is often less formal than intra-organizational management and is horizontal and complex due to it having a number of different types of stakeholders and network processes (Orton & Weick, 1990). As a result, network management is often discussed as network orchestration (Dhanasaj & Parkhe, 2006), which is defined as “the set of deliberate, purposeful actions to create and extract value from the network” (Nilsen & Gausdal, 2017). Although research on network management is inspired by the literature on firm management, network orchestration is recognized as a distinctive phenomenon in light of the characteristics of innovation networks. Some of the distinctive features will be listed below.

First of all, network orchestration is characterized as “distributed and collective” (Nilsen & Gausdal, 2017). The *distributed* network orchestration means that the overall management role is shared between several persons often representing different organizations in a network. Describing the organization of network orchestration, Nilsen and Gausdal (2017) draw on the literature of network governance (Provan & Kenis, 2008), which identifies three main types: “shared governance, lead organization governance and Network Administration Organization (NAO)” and combinations of the three. This means that network orchestration is exercised by the network members collectively, a hub firm or a third-party orchestrator (e.g. a researcher or a consultant), respectively (Nilsen & Gausdal, 2017). Further, the *collective* characteristic of the network orchestration is not only associated with more persons compared to intra-organizational firm management, it also highlights the controversy of the network orchestration literature with the traditional network literature, where the latter sees network members “as inert entities that merely respond to inducements and constraints arising from their network ties” (Dhanasaj & Parkhe, 2006, p. 659). Instead, the network orchestration literature sees network members as active entities that follow their strategic choice in the “context of absence of hierarchical authority” (Dhanasaj & Parkhe, 2006, p. 661). These characteristics allowed for the advancement of our understanding of the network orchestration when it comes to (source: Dhanasaj & Parkhe, 2006, p. 666):

- emphasizing the heterogeneity of network actors and orchestrators.
- formulation of the main orchestrator’s roles: managing knowledge mobility, innovation appropriability, and network stability (will be discussed below considering further developments of the roles in the network orchestration research).
- shifting the focus from the inert structural position of a network member (as in traditional network research) towards network orchestration as “action and process” in the context of dynamic network development.

These contributions, developed in the complex theoretical intersection of “strategic management, knowledge management, networks and communities of practice as well as project management”, are recognized as an important advancement, yet as an early attempt especially when it comes to the third issue, i.e. distribution of the orchestrator’s role in the dynamic network development (Nilsen & Gausdal, 2017, p. 4). To develop knowledge about network orchestration over time, Nilsen and Gausdal (2017) created a framework where they distribute their four main network orchestrator’s role (developed based on Dhanasaj and Parkhe’s (2006) roles framework) over different phases of network life cycle. Both the description of roles and how they are distributed over phases of network life cycle are provided below.

The role of *knowledge broker* (Brown, 1998; von Krogh, Ichijo, & Nonaka, 2000)

includes the following tasks: managing knowledge mobility, knowledge activation, boundary spanning, translation and facilitation of transactions (Nilsen & Gausdal, 2017, p. 7). It is one of the key roles, given the nature of innovation networks where management of knowledge mobility and leveraging network competences is crucial. This type of brokering between different types of network stakeholders is essential for inter-organizational learning as it serves as a bridge between knowledge boundaries of different companies and institutions. The role implies the support of knowledge creation and learning by, for example, facilitating relationships, conversations and sharing of local knowledge. The role of *innovation broker* (Batterink, Wubben, Klerkx, & Omta, 2010; Dhanasaj & Parkhe, 2006) includes the following tasks: to recognize and commercialize innovative ideas, to facilitate transactions, to manage innovation appropriability, to articulate demands, innovation process management, to link complementary actors, to handle conflicts between the network participants and to focus on enhancing transparency, facilitating interaction between the participants (Nilsen & Gausdal, 2017, p. 7). This is another key role that takes the processes of knowledge creation and exchange further, i.e. its realization in practice and achieving innovation outcomes. In other words, the role implies facilitation of the process of knowledge transformation into innovation and management of innovation short-term and long-term results. The role of *network entrepreneur* (Batterink et al., 2010; Burt, 2000) includes the following tasks: building the network infrastructure, managing network stability, composing the network, maintaining a large and heterogeneous network and setting up coordination mechanisms (Nilsen and Gausdal, 2017, p. 7). This main role is focused on establishing, developing and (re)constructing the network infrastructure (Burt, 2000) in order to secure network stability (Dhanasaj & Parkhe, 2006). The role implies the processes of involvement of network members as well as facilitation of relationships between them and coordination of work in network subgroups. Herewith, an orchestrator should be able to both extract the benefits (e.g. spanning institutional boundaries between organizations that have little knowledge about each other from before) and minimize the disadvantages (e.g. interacting only with a few members, low network commitment) of the loose coupling characteristics of a network. The role of *network leader* (Müller-Seitz, 2012; Soekijad, van den Hooff, Agterberg, & Huysman, 2011) includes the following tasks: empowering network members, possessing and extending social capital, strategy development, managing network health, imposing a common vision, developing a written constitution, constructing an intergroup relational identity, strategic management (Nilsen and Gausdal, 2017, p. 7). This main role is about “the direction of the activities of a network of independent organizations ... commonly perceived and accepted by the other participants” (Müller-Seitz, 2012, p. 430). Inspired by the literature on intra-organizational leadership, this network orchestrator’s role, however, has a number of differences due to the horizontal and less formal nature of network orchestration (e.g. no hierarchical control of task execution). The main tasks of a network leader are, among

others, to establish a common vision, “possess and extend social capital, build coalitions and act as mentors and brokers” (Soekijad et al, 2011, p. 1023).

Distributing the four roles over the phases of a life cycle model, i.e. network emergence, growth, sustainment and decline, Nilsen and Gausdal (2017) find that the roles of knowledge broker, network entrepreneur and innovation broker are most profound in the emergence, emergence and growth and growth and sustainment phases, respectively; while the role of network leader is equally important in all phases of the network life cycle. As briefly mentioned above, this research is important for both network management and policy organizations in order to get a better understanding of the orchestrator’s roles and the practices these roles imply along network life cycle. This is so because Nilsen and Gausdal’s (2017) study shows that innovation networks are indeed manageable and that to a certain degree, predictable network development can be prompted by the formal network orchestrator as a result of handling specific tasks in a particular phase. This important milestone in developing knowledge about orchestration of innovation networks over time is therefore used in this thesis in an attempt to develop it in the context of the tourism industry. Further development of the framework is related to preliminary assumptions that orchestration of innovation networks in other contexts, for example in tourism, is distributed among several types of network members and not only formal network orchestrator and his/her team as it is according to the study of Nilsen and Gausdal (2017). Further, a prescribed sequence of stages in homogenous and generic models that linearize network development is useful, but can be enriched by paying more attention to the emergent development patterns as an important part of understanding the complexity of network dynamics (Clegg et al., 2013; Fuglsang et al., 2015). This work can be important for preparing network orchestrators for unplanned context-dependent situations and that distributed network orchestration may imply more supportive and facilitating roles of the bottom-up processes by the formal network orchestrators rather than top-down implementation of particular activities. Further, while one case study has its advantages, i.e. gives an opportunity of a more in-depth exploration, it is also important to explore whether similar innovation networks require similar orchestration roles in a particular phase and whether these roles are realized similarly, which can be done by increasing the number of network cases in an empirical inquiry.

Critique of the linear models and their use in the tourism context

Built upon one or a combination of several models of organizational change, the most prominent contribution to macrodynamics of inter-organizational change and development by research on collaborative innovation has been made within primary and high-tech industries, e.g. maritime and oil and gas (Isaksen, 2009), biotechnology (Powell et al., 2012) and optical recording media industry (Chou & Zolkiewski, 2012). These

works are mainly focused on networks or cluster-network level of collaboration, as they are “an intermediary level of structure between fields and actors”, i.e. “the structures holding institutional fields together and influencing their evolution” (Clegg et al., 2016, p. 279). Even though these works have contributed to the understanding of collaborative dynamics, the latter continue to dominate the research agenda for several reasons.

(1) First, the majority of these studies are quantitative; many are also conceptual, and they approach networks as channels as they “enable knowledge to flow between groups and organizations” (Newell et al., 2009, p. 166). An example of a configuration network approach used to study a destination tourism network is found in the work of Baggio et al. (2010), who explain how “structural properties of a network affect its behavior or evolution” (p. 802). It might be problematic to use this approach alone as it pays more attention to “why specific elements combine to make distinctive configurations possible only at particular points in time and space” (Powell et al., 2012, p. 434) and what the position of a company in the network should be in order to benefit from the novel information (Baggio et al., 2010), rather than what actually happens in the networks’ practices that drive these networks towards innovation. Thus, other approaches need to be adapted to understand the network dynamics, because without them “the understanding of the outcomes of networks will suffer” (Eide & Fuglsang, 2013, p. 288).

(2) Second, the application of the linear models of change to tourism innovation networks is modest since tourism innovation networks are a relatively young phenomenon compared to other industries. Hjalager (2000) argued that this phenomenon was hindered in tourism because companies did not have a tradition of collaboration and they had been free riders. As a result, research on network dynamics has, until recently, been focused on primary and high-tech industries (Pittaway, Robertson, Munir, Denyer, & Neely, 2004; Powell et al., 2012), while network studies in service and especially experience sectors are scarcer (Eide & Fuglsang, 2013, p. 289). However, much has happened in the tourism industry in the past 20 years. In tourism as a primary experience industry, business collaboration in a form of innovation network has become a new organizational form that is built on interdependencies between businesses in a particular destination (Aarstad, Ness, & Haugland, 2015; Haugland, Ness, Grønseth, & Aarstad, 2011) and the associated innovation work is facilitated and supported by R&D institutions and public bodies (Dredge, 2006; Hall, 1999). Therefore, theoretical knowledge developed in other contexts needs to continue to be transferred by tourism researchers and applicability of the linear models should be further explored in the tourism context. In the past decade, the recognition of the importance of innovation networks in service industries led service research to introduce, among other things, a ServPPIN concept. This concept surpasses understanding of innovation networks as simply “interaction as a means of producing knowledge, innovation and ... economic

performance” as it re-prioritizes to focus on public-private relations in the analysis of innovation work (Djellal and Gallouj, 2013, p. 21). It focuses on service providers as the main actors and also takes into account non-technological innovation.

(3) Third, more general literature on innovation network development and ServP-PIN research (that is also applied to tourism) using linear models of change often do not have a unified sequence of stages or change criteria to describe the development. For example, the life-cycle theory (LCT) does not posit a unified sequence of stages or a unified set of criteria to describe the stages. Sundbo (2010) discusses a three-stage model: 1) prototype-industry/crystallization stage; 2) commercialization and entrepreneurial stage; 3) consolidation and firm growth stage; through the categories of the knowledge base, resources, network membership, demand and policy. Green et al. (2013), however, claim that innovation networks are usually described through four stages of preparation or forming, development, implementation of function and fulfilment, closure or sustaining through the categories of size, integration and network activities. The variety of stages within one theoretical stream can sometimes be related to varying characteristics of innovation processes that take place in different industries.

(4) Fourth, the stage models (Van De Ven and Poole, 1995) are often generally characterized as a “weak” process approach. Briefly mentioned above as being the foundation for practice research, the process approach can be defined by its focus on studying “phenomena dynamically – in terms of movement, activity, events, change and temporal evolution” (Langley, 2007, p. 271). And while the “weak” approach “involve[s] consideration of how and why things ... change, act and evolve over time”, the “stronger” approaches involve “how such ‘things’ come to be constituted, reproduced, adapted and defined through ongoing processes” (Langley, 2007, p. 272). While the application of the linear models of change is useful for the network management, it can be questioned whether the insight generated by the stronger approaches can be used in practice. Can a model that goes beyond the identification of periods and factors of change and which accommodates a more holistic and heterogeneous development of innovation processes that often bear several alternative development paths (Van De Ven et al., 1999) be useful for network orchestrators, network members and policy organizations? The assumption of this thesis is that it can indeed complement the more linear models of development and help them recognize the complexity of the development of innovation network practices.

(5) Fifth, the applicability of the linear models of change to networks, the main purpose of which is to develop innovation, needs to be explored further due to the more general characteristics of the innovation process as well as collective character of innovation work in networks. Namely, it is worth questioning whether a linear model of change originated in the organizational change research posits the explanatory power to

discover and describe multiple, complex, simultaneous and sequent innovation processes that take place in a network organization of economic and social activities (Clegg et al., 2016) that are formed to be sustained over longer periods of time for the benefit of network members as well as their environments. It is also worth considering whether it is more suitable to describe the development of a particular innovation or innovation project within organizational boundaries. Furthermore, the application of the linear models of change to study innovation processes more generally can be problematic (Van De Ven et al., 1999), since innovation processes are characterized as complex, non-linear and iterative (Jernsand et al., 2015; Sørensen & Mattsson, 2016).

To summarize the critique of the linear models of change and their applicability to study innovation networks, the following issues have been addressed (in the following points above): “networks as channels” as the prevailing view on networks (1); the nature and logic of the linear models of change (3.4), the application of the linear models to study context-dependent innovation network processes (2, 5). As discussed above, all these limitations can be recognized in service and experience innovation network research in general and in tourism innovation network research in particular. The question is, how can these limitations be handled when the main purpose of the research is to study the development of innovation networks over time and its role for network members?

When it comes to the existing approaches to networks in the tourism research, it is suggested that they be divided into focused, i.e. business and policy networks, or combinative, i.e. configuration and co-opeting (combining collaboration and competition) networks (van Der Zee & Vanneste, 2015). The first two approaches are split in terms of the goals: they either look upon networks as an organization of tourism businesses (Tremblay, 1998) or emphasize the importance of public-private relations in policymaking (Hall, 1999). The choice of the current study could, therefore, be limited to the two combinative approaches, which discuss both business and public-private relationships. The configuration stream is built upon social network analysis and includes quantitative studies that emphasize network outcomes of acquired social capital; it is a version of network as channels approach described above. The co-opeting stream focuses less on the outcomes and more on the nature of business collaboration, which “increases both stakeholder and destination performance” in the process of co-opetition, i.e. collaboration and competition (van Der Zee & Vanneste, 2015, p. 52). While Porter’s (1990) inspired co-opeting stream could be an alternative for the current research to address the phenomenon of policy-mediated network collaboration that aims to facilitate innovation and development of both network stakeholders and destination as a whole, it also has certain limitations. Namely, it is rationalistic and does not consider the social embedding of firms, the mutual nesting of networks or the practice-related character of networking between practitioners rather than organizations. Therefore, a version of

the practice-based approach, i.e. “network as communities” (Newell et al., 2009), is chosen in the current research in order to study how network practitioners “engage with and form a community that is able to shape their thoughts and actions” (p. 168). This study, thus, follows the argument that innovation network research can be advanced by addressing how “the manifold practices” are being actively shaped and changed by the network practitioners in order to make them durable (Gherardi & Geiger, 2009), which has been neglected by the “nodes” and “ties” perspective. It can further be argued that these benefits of the practice-based approach can address other limitations of the linear models. Namely, by supplementing one or a combination of several linear models of change by the practice-based approach, one may strengthen the weak process approach since such study would highlight how network processes form, change and dissolve tourism practices over time. When it comes to the context-dependent innovation processes, the practice-based version of the integrative innovation approach (as described in 2.2.3 above) can suggest a framework applicable to studying different sectors of the economy.

2.3.3 Innovation network practice: can the practice-based approach remedy the limitations of the linear models?

Addressing the need for better integrated different theoretical network subfields in tourism and for reflection upon the benefits of innovation networks based on the empirical insight (van Der Zee & Vanneste, 2015), this study suggests an exploration of innovation network practices. The study of network practices can provide evidence for the usefulness of collaboration and help to “visualise and explain the benefits of working together in a network” (van Der Zee & Vanneste, 2015, p. 54). Such evidence can be collected by focusing on networks as organized activity (Nicolini & Monterio 2017) of tourism practitioners within a destination, also called “networks as communities” (Newell et al., 2009). This way, innovation networks in tourism would be viewed as a social movement aiming at certain forms of productive life rather than being limited to an access to an assemblage of resources. In spite of the new insights into innovation network the practice perspective can bring, its application has until recently been quite limited in tourism research.

Recent studies argue that it is important to learn both about “tourism as practice” to understand the nature of tourism more generally (De Souza Bispo, 2016) and about tourism network practices in particular (Fuglsang & Eide, 2012). Studying “tourism as practice” would then mean studying “a form of organization that emerges from bundles of practices” (De Souza Bispo, 2016, p. 174), which vary between tourism subsectors and are furthermore company-specific. While practices are certainly company-specific, some practices are shared by tourism practitioners within and across tourism subsectors in a destination, which means that tourism practitioners can exchange knowledge and

share ideas about common practices easier than practitioners from different communities. In addition, when looking on practices as being constituted by a combination of its elements, some of the skills, resources and images are shared by tourism practitioners in relation to shared geographical space and customers. An example of a common practice within a tourism subsector can be handling weather conditions in outdoor activities (Rantala, Valtonen, & Markuksela, 2011). An example of common practices across different subsectors within a destination can be packaging of tourist products and experiences and marketing products of several companies as one experience (Fuglsang & Eide, 2012). While the development of the latter type of practices may motivate the majority of tourism companies to join an innovation network, the development of a narrower subsector-specific type of practices can be of interest to network sub-communities. Thus, in this case, the practice perspective is focused on the network-developed shared practices of a network community based on shared understandings and driven by shared learning of the practitioners in the process of active engagement into a common social activity.

Even though practices of a particular network sub-community represented by its members with similar company practices (for example, nature-based tourism) are usually associated with incremental or ad-hoc innovation in practice-based research (Brown & Duguid, 1991; Fuglsang, 2010), network practitioners who belong to different types of organizations also share knowledge (Brown & Duguid, 2001) that may posit more novel ideas and, as a result, more radical change. Theoretical rationale of the practice-based approach for this is boundary spanners, i.e. “highly connected people” both utilizing connections within the community that they belong to and linking representatives engaged in similar social practices in other communities (Newell et al., 2009). They play an entrepreneurial role, opening up the relatively closed group of the community to novel information and in some cases to innovative activities. An example of boundary spanning is collaboration between businesses across tourism subsectors or even beyond the tourism industry, including collaboration with R&D institutions and public bodies. The involvement of the public sector by providing support and network funding means that the networks are mediated by the policies that aim to enhance economic and social growth in the regions. Yet, such facilitation is not always simple, since business and public sectors involve different habits, values, organizational practices and principles.

Thus, the implications of practice theory for studying a complex network as described above are twofold. Firstly, it is the interference of several types of practices in different combinations: business practices, research practices, practices of public support organizations. This way, the current research addresses not only the *genealogical approach (1)* to practices, that is the dynamics of practice emergence, development and change by recommendations of the core elements of practice (addressed in the *Innovation* subsection above), but also a *dialectical approach (2)*, which focuses on “the

co-evolution, conflict, and interference of two or more practices” (Nicolini & Monteiro, 2017, p. 113). And second, such type of an innovation network represents an intermediary organization, which is particularly important in the tourism context, as it creates unique access to arenas where tourism practitioners can experiment with new practices that they otherwise would not do, given limited organizational capacity. In other words, this complex network organization becomes a laboratory where tourism companies are together challenged to assemble common practices by experimenting with alternative elements of tourism practice and their combinations.

Returning to the claim that this study seeks to contribute to a better understanding of the impact of innovation network practices, it is essential then to question what role these practices play for network members. In other words, whether and how company practices become aligned with the network practices.

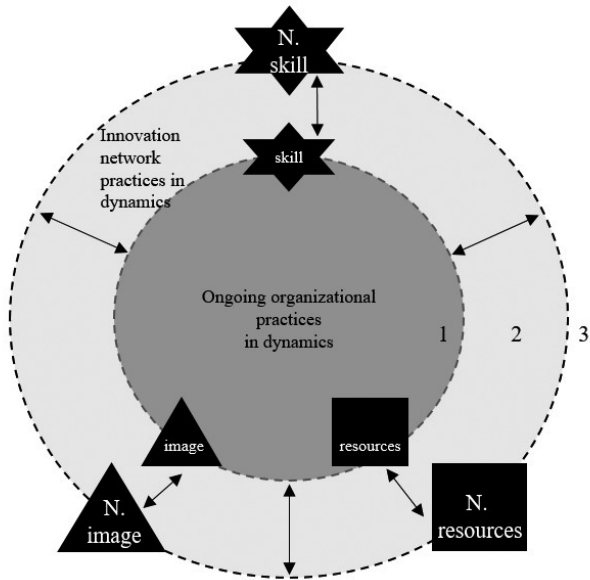
2.3.4 The role of innovation network practices for network members' innovation

In spite of the increased research interest in innovation networks, scholars focus on the internal network processes and network outcomes rather than how these innovation processes are implemented (and settled) in the member companies. For example, Baggio and Cooper (2010) suggest that the future research agenda must be focused on the “most effective configurations of destinations”, that is what a network structure should be and how it should change over time in order to facilitate knowledge transfer between the prevailing number of knowledge-averse SMEs supported by the public sector. Ahuja et al. (2012, p. 446) argue that earlier network research does not account for intentionality of network actors who “can purposively enact their social structures” and, thus, deprives us of the chance to advance our understanding of “the relationship between network structures and performance”. The work of Ahuja et al. (2012) as well as network studies that followed (Sørensen & Fuglsang, 2015; Sørensen & Mattsson, 2016) have contributed to the understanding of the relationship between network structure and innovation performance and outcomes by pursuing the dynamic view on networks, but without further implications of these dynamics for the practices of member companies. Sørensen and Mattsson (2016, p. 25) look at the development of innovation network structures over time to meet the exploration and exploitation needs of the companies during the parallel innovation process where the latter means that “different phases of the innovation process are run in parallel rather than as a sequential process”. Although they pay more attention to how a company may benefit from change of a particular network in developing a particular innovation, less attention is given to how the innovation emerges in the networks and is further implemented in the member companies.

To address this research gap and inquire into how innovations developed in network

practices are transferred to and implemented in the member companies, this study builds on Nicolini's (2009) analytical lenses of "zooming", i.e. "fore-grounding and back-grounding boundaries in the programmatic attempt to complexify practice against all types of reductionism" (p. 1396). The "zooming in and out" aims to capture "the connection between the here-and-now of the situated practicing and the elsewhere-and-then of other practices", or in other words, "both the conditions of the local accomplishment of practice and the ways in which practices are associated into broad textures to form the landscape of our daily (organizational) life" (Nicolini, 2009, p. 1392). Focusing the framing of the member companies' innovation practices as a part of broader innovation network texture, this study aims to capture the dynamics of the innovation network practices. That is the "zoom out" position, which defines how a network community is formed based on the bundles of practices of the member companies and relations between them. Then, the "zooming in" process discovers whether and how innovation network processes are being transferred to the member companies and become a part of their ongoing practices. The application of these analytical lenses can be associated with what Nicolini and Monteiro (2017, p. 111) call a *configurational approach (3)*, which focuses on "how concerted accomplishments and performances are connected and hang together to form constellations or larger assemblages". This has an important implication in the tourism context since innovation network practices are most often organized around a particular destination, where tourism companies are dependent on each other for delivering good experiences to tourists and, therefore, innovation network practice can indeed be seen as such a larger assemblage of practices for tourism companies.

Summing up the theoretical perspectives that are essential for inquiry into the study of innovation network practices and their role in innovation of network members, a combination of genealogical, configurational and dialectical perspectives must be emphasized as the main framework of this thesis. They are schematically integrated in the figure below:



1. *Genealogical approach*, i.e. the dynamics of practice emergence, development and change by recommendations of the core elements of (both network and organizational) practice (dotted line)
2. *Dialectical approach*, i.e. interference of several practices in the network “laboratory”, where tourism companies can experiment with both alternative elements of practice and their combinations (light grey circle surrounding company practices)
3. *Configurational approach*, i.e. organizational practice of a tourism company being embedded into a larger assemblage of network practice

Figure 6. Theoretical framework for studying innovation network practices and their role for innovation of a member company

The outside dotted line symbolizes the dynamic nature of innovation networks as a recombination of the core elements of network practice. The inner dotted line symbolizes the dynamics of organizational practices of a network member as a recombination of the core elements of organizational practice. Both types of practice are viewed as practice genealogy (1) built upon Pantzar and Shove’s (2010) elements of practice, namely image, resources (material in original version) and skill, which are dynamically combined over a period of time to constitute a practice. In other words, this thesis conceptualizes network and member companies’ practices as different sets of elements of practice, where innovation is respectively found in a continuous enactment of the novel elements of practice that leads to durable recombinations that constitute new practices (Antonacopoulou, 2008; Pantzar & Shove, 2010). The arrows between practices’ elements and relations between them point at interference of organizational and network practices (2). And finally, the configurational approach (3) illustrates the embeddedness of organizational practices in the network practices as well as broader arrays of practices. Thus, the theoretical framework supports the argument that “a multifaceted and multi-dimensional phenomenon” of innovation network practices indeed requires a toolkit-logic (Nicolini, 2009, p. 1395), i.e. a combination of several analytical lenses to study the inquired phenomenon, as shown in the figure above.

This chapter has discussed the complex phenomenon of innovation networks that can vary in terms of organization and membership, and which require a combination of

analytical perspectives to bring forward its complexity and dynamic development. The theoretical analysis allowed the formation of a certain preunderstanding of the main problem statement, i.e. development of innovation networks from the practice-based perspective and how network innovation can be enacted in the practices of network members. The chapter demonstrates that practice-based approaches can be used to understand the complex, social and embedded nature of innovation network practices, since it has previously been argued that innovation is a part of working and learning processes on both organizational (Brown, 1998) and network levels (Newell et al., 2009). The use of practice perspective can further add up to the linear models of change applied to innovation networks by exploring how practices and practices' elements (Pantzar & Shove, 2010) change over time, which can bring forth the emergent network development and help formal network orchestrators cope and support innovation network practices. The framework of innovation network practices also shows that the study of the development of innovation networks over time requires exploration of the dynamics and relationship between the practices of different types of network actors, which can be realized by using a dialectical practice approach. Further, the practice genealogy seen through the elements of image, resources and skill can also help to understand the role of network innovation for the embedded organizational practices of network members. Namely, network innovation can be integrated into the practices of network members by seeing elements of network practices as novel for the companies and thus used by them to recombine the existing and develop the new organizational practices. This important insight requires, however, the combination of different approaches to practice in work with empirical materials.

3 PHILOSOPHICAL ASSUMPTIONS AND METHODOLOGICAL IMPLICATIONS

The purpose of this chapter is to describe the philosophical assumptions that laid the foundation for the current study, as well as methodological implications and choices that these assumptions led to. The chapter is meant to provide a transparent picture of the inquiry into the empirical data, provide the reader with an insight into how the analysis was done and reflect on the quality of the research process and findings.

The chapter consists of four parts:

(3.1.) The philosophical position of social constructivism is discussed, followed by the implications of this position for studying the dynamics of innovation networks. Then, the philosophical underpinning of the practice-based approach and how it is in line with the originally developed hermeneutic phenomenological position of the study are presented.

(3.2.) Selection of cases is followed by a short description of the empirical settings of the study, and data collection techniques are described.

(3.3.) The process of data analysis is discussed.

(3.4.) Reflections on the quality of the methodological choices in the current research are presented.

3.1 Philosophy of science: the nature of social reality and its implications for studying the dynamics of innovation network practices

3.1.1 Philosophical assumptions

Philosophical assumptions that lay the research foundation predetermine the relationship between the empirical data and theoretical knowledge built from it. The ontological assumptions, that is how the nature of the researched reality is for the researcher, as well as epistemological assumptions, what the nature of knowledge is and how it can be justified, are the key questions that help the navigation between different research strategies and designs. The philosophical position is thus crucial for the choice of research

evidence, data collection methods and data analysis.

Different scientific assumptions, according to Thomas Kuhn (in his analysis of the history of physics), form different “paradigms” that can be defined as prevailing understandings that characterize scientific work (Kuhn, 1962). Further, according to Thomas Kuhn, such paradigms that explain scientific phenomena in different ways are mutually incommensurable – an argument that both Kuhn’s coevals and present-day discussants disagree upon (Easterby-Smith, Thorpe, Jackson, & Lowe, 2008; Fuglsang, Olsen, & Rasborg, 2013; Popper & Notturmo, 1994). In particular, in social sciences marked by tensions between distinct scientific positions, different types of explanations may be given for a given phenomenon. It has been argued that “it is unfortunate that within the social sciences such debates sometimes take the form of denigrating the other point of view, or of completely ignoring its existence” (Easterby-Smith et al., 2008, p.56). Instead, it is suggested that the tensions between different scientific positions can lead to “cross paradigmatic discussions in social science and open doors between single disciplines” (Fuglsang et al., 2013, p. 12).

In social science, the scientific positions are sometimes polarized into positivism and social constructionism. Although the assumptions of what constitutes the two positions vary, they are seen as a continuum that spans from relying on observations of the objective social reality that exists independent of our consciousness about it to reality as socially constructed through scientific concepts and “given meaning by people”, respectively (Easterby-Smith et al., 2008; Rasborg, 2013). These positions are being criticized for being extreme: while positivists assume that “there exist regularities or law-like generalizations in material or social settings that provide the basis for both explanation and prediction”, constructionists emphasize the central role of interpretations and “deny the possibility of knowing what is real and reject the possibility of discerning causality” (Easton, 2010, p. 118). There are stronger and weaker streams in both scientific positions, as well as a separate position that combines the elements of the two, namely critical realism. Critical realism, most often associated with the name of Roy Bhaskar, is defined by the acceptance that reality does exist independently of our consciousness: it starts from being “reduced to what can be perceived by our senses”, yet this “does not take into account deep structure with its underlying mechanisms” (Danermark, Ekstrom, & Jakobsen, 2001, p. 8). The role of science is to interpret these underlying mechanisms.

The current research is situated within the social constructionist position, as it focuses on innovation network practices that involve human activity that is purposefully formed, developed and given meaning by the network participants. The reasoning for drifting away from the positivistic assumptions is similar to the arguments in the French debate by Lucien Goldmann, Michel Foucault and Pierre Bourdieu that, in spite of its

controversy, clearly doomed positivistic position as it failed to recognize the contextual embeddedness of social science. These arguments are summarized by Delanty and Strydom (2003, p. 365) as follows: “the scientific method in social science can no longer shield itself from its context and, as a result, the demarcation of science from society, the basis of positivism, becomes increasingly difficult” (Delanty & Strydom, 2003, p. 366). Together with the shifting philosophical assumptions, the “exploration of the methodologies that emphasized discovery, description and meaning rather than prediction, control and measurement” began (Laverty, 2003, p. 21).

One of the earliest social constructionist works is Peter Berger’s and Thomas Luckmann’s book *The Social Construction of Reality* (1966), in which the authors build their discussion of the works of Alfred Schutz’s with a focus on “the structure of the common-sense world of everyday life”. The authors develop Schutz’s arguments to characterize the sociology of knowledge that is “concerned with the relationship between human thought and the social context within which it arises” (Berger & Luckmann, 1966, p. 16). Similarly, in the current study, the purpose is not to find the truth of what happened, but rather to understand how informants experienced their context-dependent everyday life.

The epistemological implications, or what knowledge is in social constructionism, depend on the form of social constructionism, namely strong – “objects or referents of knowledge are nothing more than social constructions”, or weak – “socially-constructed nature of knowledge and institutions, and the way in which knowledge often bears the marks of its social origins” (Sayer, 1997, p. 466). In this thesis, knowledge and how it is attained, i.e. learning, implies that “people create meaning through their interactions with each other and the objects in the environment” (Kim, 2001). The researcher’s task is then to “appreciate the different constructions and meanings that people place upon their experience” and “the ways they communicate with each other” (Easterby-Smith et al., 2008, p. 59). Fuglsang et al. (2013) sum up a number of assumptions characterizing social constructionism: “all knowledge is interpretation knowledge, knowledge is conditioned by the social context, the language is a prerequisite for thinking, the social is created in social practice, and the social can be described through the illumination of the dynamic processes” (Fuglsang et al., 2013, p. 42). The implications of many of these characteristics are found when studying innovation networks, as it will be described below.

3.1.2 Implications of the social constructionist philosophy in the study of the dynamics of innovation networks

The ontological and epistemological position of social constructionism has further implications when it comes to (1) understanding the research phenomenon, that is what is

chosen to be studied, as well as (2) methodological choices of the research inquiry. This and the next section will address the first issue (what and how is to be studied), while the rest of the chapter is devoted to the second issue (where, when and from whom the data is collected, how it is analyzed and what implications it has for the study). The current research seeks to increase understanding of the development of innovation networks over time by studying their practices. Therefore, it is important to explain what is understood as “innovation”, “network” and “practice”, which constitute the complex concept of “innovation network practice” that is central in this thesis from the position of social constructionism.

Innovation is a new idea implemented in practice and, therefore, leads to a change of practice. Thus, epistemologically there are two sides of it: an idea that stems from *new knowledge*, and the *process of change* of an entity from one state to another. New knowledge does not automatically imply radical novelty or know-how; it may also mean access to new sources of information, resources or skills, familiarization and understanding of how they can potentially be applied. Unlike the positivistic perspective, where knowledge is objective and can be codified, transferred and acquired, in social constructionism new knowledge is being purposefully actively constructed based on one's past knowledge and experiences (Nicolini et al., 2003). Therefore, a positivistic attitude towards innovation as having a tangible and measurable outcome is limiting when having social constructionists' lenses and should instead be interpreted more broadly as a dynamic process of smaller and bigger changes. Thus, an important implication of the social constructionist position is that it accommodates a change perspective: “social phenomena are not eternal or unchanging, but on contrary are formed through historical and social processes”, and thus “they are also historically changing” (Rasborg, 2013, p. 403).

Further, this study builds upon one of the most important positions of social constructionism, that is that knowledge (as an inalienable part of innovation process) “should be understood as being formed on an intersubjective basis” (Fuglsang et al., 2013, p. 42). This implies the importance of the *social context* where innovation work takes place and supports the later versions of the social constructionist position. Namely, the earlier versions of constructionism; for example Jean Piaget, suggested that knowledge is actively shaped by one's experiences and constructed upon individual interpretations (Schreiber & Valle, 2013). While the later versions of social constructionism highlight the role of social and cultural environments as crucial in the construction of new knowledge (Vygotsky, 2012). This way, Lev Vygotsky framed individual cognition as inseparable part and a product of social interactions mediated through language. The current study appreciates the crucial importance of the social interactions, while at the same time, it recognizes the complexity of defining the unit of analysis by delimiting the level of social interactions, as it is not always possible to separate the impacts of one in-

teraction from another, which is the same as with collective cognition. This implies that even though the study explicitly defines practices of formal policy-mediated network as its main unit of analysis, it also takes into consideration both the smaller scale interactions that constitute a network as well as larger-scale interactions that a network can be a part of. In other words, the study assumes that the networks are constituted by both formal (Pettigrew, 1990) and less formal (Brown & Duguid, 1991) interactions within organizational units of the network members as well as formal and less formal units beyond organizational boundaries. While growing inter-organizational research that studies entities of different scale often builds theoretical understanding on the findings from organizational studies, there is no agreement of what parameters should define a separate research entity. The most common understanding of social interactions within a particular unit is defined by having “an internal structure and are embedded in larger social systems, members have various types of relationships with one another, and varying levels of influence on the group and vice versa” (Hollingshead & Poole, 2012, p. 1).

Thus, the epistemological implication of social constructivism on the study of innovation network is that it is an entity, the development of which is driven by the construction of new knowledge in the process of social interactions in a particular cultural and historical context. Furthermore, these context-dependent social interactions are driven by a particular purpose and imply one’s engagement with common social activities and define his/her belonging to a particular community. Thus, instead of focusing on the network’s structure, its sub- and over-structures and relationships that unite different actors in these structures, as is primarily done in network research, this study focuses on processes and practices that take place in a network over time in order to facilitate innovation. This perspective implies that new knowledge is being produced in the process of progressive engagement into practice, also called “cognition in practice” (Lave, 1988), and is an integral part of working and innovating, which is a central idea of the practice approach (Brown & Duguid, 1991). Thus, by viewing “social and organizational life” as “stem[ing] from and transpire[ing] through the real-time accomplishments of ordinary activities”, practice approaches “are a primary way to study organization processually” (Nicolini & Monteiro, 2017, p. 110).

Processual research has been given a lot of attention, especially in organizational studies (Pettigrew, 1987; Poole, Van de Ven, Dooley, & Holmes, 2000). The very nature of the process varies in different scientific positions. Poole et al. (2000) distinguishes three ways of how “process” can be understood: as an explanation for a variance theory, as a category of concepts and as a developmental event sequence. Both the first and second understandings of the process seem to be better accommodated by the positivistic position, since both tend to explain the cause-effect relationships between input and outcome variables. The third understanding of a process is cohesive with social

constructionist ontology since it “takes a historical developmental perspective, and focuses on the sequence of incidents, activities, or stages that unfold over the duration of a central subject’s existence” (Poole et al., 2000, p.19). Thus, the process thinking that “involve[s] consideration of how and why things – people, organizations, strategies, environments – change, act and evolve over time” (Langley, 2007, p. 272) is a part of the social constructionist position and justifies its choice for understanding the network dynamics.

Further, the practice approach extends the processual perspective (Langley, 1999; Pettigrew, 1997) in a way that it “does not only focus on what is practice and how practice is performed [in different temporal periods]...[I]t also asks who are the practitioners, why they perform the practice the ways they do in relation to where and when the practice is performed” (Antonacopoulou, 2008, p. 126). Thus, when studying innovation, the focus is not on the results of innovation work, i.e. innovation “products”, but on the innovation work itself, i.e. “what people do” (Pantzar and Shove, 2010, p.447). The use of practice approaches is cohesive with social constructionist’s assumptions when it comes to the understanding of common social activities and learning, but it also assists the current research in constructing a more nuanced picture of the innovation network dynamics by looking at network practices over time to describe the change.

3.1.3 Practice-based approach: complexity of studying practices of innovation networks

The origins of the practice approach lie in a number of traditions, e.g. Marxism: “All social life is essentially practical. All mysteries which led theory to mysticism find their rational solution in human practice and in the comprehension of this practice” (Marx, 1970, p. 121). In addition, theories of Heidegger, Wittgenstein and American pragmatism underlie the position of the practice approach that “put concrete human activity ... at the centre of the study of the production, reproduction, and change of social phenomena” (Nicolini & Monteiro, 2017, p. 110). Having purposefully organized network activities in the focus, this research draws on practice genealogy or “natural life of practice” (Nicolini & Monteiro, 2017) by studying formation, development and deformation of innovation practices as “a continuous on-going process...[that] involve[s] changing combinations of symbolic and material ingredients and of competence or know-how” made possible or dissolved by the practitioners (Pantzar & Shove, 2010, p. 447). The embeddedness of practice in a broader social context raises an important question of what is seen as the primary unit of analysis, or how practice interconnectedness can be handled in a research inquiry. On one hand, the networks in this study are constituted by the representatives of tourism companies who are also a part of the “home” organizational practices. On the other hand, the networks are embedded in a broader social, economic and cultural context and are, in the cases studied in this thesis, dependent on

the Arena Programme,¹ the policies of which “impinge on practice” (Somekh & Lewin, 2011). The nature of this question is probably as old as the social constructionists’ position itself and resides in the discussion of the primary role of an individual in constructing social reality. Alvesson and Sköldbberg (2009, p. 36) describe different views from Berger and Luckmann (1966) who focus “on how individuals construct the society” to Fuchs (2001) who describes “how individuals and individuality” are constructed by networks. Alvesson and Sköldbberg (2009, pp. 36, 37) argue that it was indeed “Bourdieu’s theory of practice and Giddens’ theory of structuration” that suggested a solution to this micro-macro debate. Namely, they “introduce a third element – a processual aspect which mediates between the individual and society” (Alvesson and Sköldbberg, 2009, p. 37). In the practice theory where “social life comes into being through practices” (Feldman & Orlikowski, 2011, p. 1245), the micro-macro debate would then be seen as the daily life of practitioners being a part of broader texture of practices, the connections between which need to be trailed. More recent works in the practice tradition address the micro-macro debate using metaphorical expressions of a “spiral”, which is meant to map and analyse the texture of practices (Gherardi, 2012) or “zooming in and out” to equip a research with an opportunity to...foreground and bracket certain aspects of practice (Nicolini, 2009). The latter approach is used in this thesis.

As mentioned in the theoretical chapter, Nicolini’s (2009) “zooming in and out” movement is built upon a complex theoretical toolkit that combines different approaches to study various aspects of practices. However, the application of the zooming movement has certain methodological requirements that allow to secure “sequential selective re-positioning” “without having to revert to the idea of pre-existing levels of reality” (Nicolini, 2009, p. 1394). The methodological requirements are summarized by Nicolini (2009, p. 1395) as “being both [a] multi-method and multi-sited” case study. The multi-method part implies multiple methods of data collection, namely, observations and interviews, as well as documents, pictures and tools analysis, while the multi-sited part implies travelling the other sites to alternate “between a focus on the accomplishment ... in specific places and an attempt at making sense of the associations between different local accomplishments of the practice and other more distant activities” (Nicolini, 2009, p.1395). The implication of the zooming movement on the current study is that network practices are seen in the broader texture of the Arena Programme organization and are at the same time assembled by the narrower texture of the company practices. Thus, “to complexify practice against all types of reductionism”, the innovation network practices in this study are also approached as a multi-method (see the next subsection 3.2 for more details) and a multi-sited case study, namely network and organizational practices in the setting of the Arena Programme organization. However, the major dif-

1 National Innovation Programme, which will be further described in the data collection subsection.

ference between this study and Nicolini's is that instead of placing the research emphasis on practice accomplishments, this study explores how these accomplishments come to be, how they are "perpetuated and changed, and why it[they] disappear[s]" (Nicolini & Monteiro, 2017, p. 121). Thus, the overall emphasis on dynamics of the innovation network practices as well as their role for the "conservative and resistant to change" (Brown & Duguid, 1991, p. 40) organizational practices are central to this thesis.

3.1.4 Hermeneutic phenomenology

As mentioned above, the origins of the practice-based approach are often associated with the name of Martin Heidegger, known for his hermeneutic phenomenological philosophy. Hermeneutic phenomenology within the social constructionist tradition was the initial philosophical position of this thesis, which has evolved into a primarily hermeneutic position. Phenomenology is "the study of lived experience or the life world ... as lived by a person, not the world or reality as something separate from the person" (Lavery, 2003, p. 22). In this sense, phenomenology highlights the movement from the absolute and "out there" positivistic reality to realities as being constructed and experienced. According to social constructionism, "behaviour arises out of a combination of the individual and their environment" and "an individual's personality is constructed from the perceptions of all actors in any given situation" (Chell & Pittaway, 1998, p. 25). As a result, "[P]ersonality is not considered to be internal and consistent ... but personality is considered to derive from an actor's interpretation of their own behaviour as well as the interpretation of others involved in the social context" (Chell & Pittaway, 1998, p. 25). Therefore, by inquiring into experiences in attempt "to unfold meanings as they are lived in everyday existence" (Lavery, 2003, p. 22), phenomenology essentially inquires into the meanings created in the bundles of practices that describe everyday social activities.

However, the use of pure phenomenology that is often associated with the name of Edmund Husserl comes along with its bracketing principles. These principles imply the need and possibility "to bracket out the outer world as well as individual biases in order to successfully achieve contact with essences" (Lavery, 2003, p. 23). The limitation of the phenomenological reduction is remedied in Heidegger's hermeneutic phenomenology that accounts for the researcher's and informants' preunderstandings that are "a structure for being in the world" (Lavery, 2003, p. 24) as well as that meanings are indeed constructed in a tight relation to one's environment, together with other actors based on their experiences and background. Thus, in this mutual co-construction of an individual and the world (Munhall, 1989), the essence of the hermeneutic component of the philosophy is the interpretive process that is crucial for one's individual or collective understanding by means of language. Thus, the very idea of conducting this research, its focus and problem formulation is rooted in the hermeneutic phenomenological rese-

arch position. Namely, the idea of learning about the phenomena of innovation network practice is rooted in my preunderstanding of the importance and challenges related to the phenomenon, which is, in its own turn, built upon my work experience, participation in previous research projects, contact with the industry in the researched settings, as well as research literature that problematizes collective innovation processes in tourism. In this sense, when starting this research and tapping into the data collection, I understood the importance of being able to learn about network and organizational practices as experienced in the first person. However, since I have not really immersed myself in the activities of a network and/or a network member organization where I could be a part of their everyday life, the phenomenological position is an inspiration rather than a realization of the initial philosophical position.

Further, appreciating the importance of “the researcher’s presence and interpretative work” (Alvesson & Sköldbberg, 2009, p. 7), the implication of the hermeneutic philosophy for this qualitative research is in the attempt to uncover relationships and patterns in the informant’s real world perceptions and understanding of specific topics (Rasborg, 2013), which in this context is innovation network development and its role for separate businesses. Since the researcher is not directly involved into the practices, she makes her own interpretations of the primary data that describes the network practices, which is the essence of double hermeneutics in social science, according to Giddens. In other words, there are two levels of interpretation: the practitioners’ individual interpretations of the meaningful network actions as well as the researcher’s interpretations of the network practices in the attempt “to understand and develop knowledge” about these meaningful actions (Alvesson & Sköldbberg, 2009, p. 175). Further, one may argue that this mainly retrospective study indeed includes a triple hermeneutic cycle because the informants’ interpretations take place on two levels. The first level occurs when a particular situated experience takes place in the past and is interpreted by the practitioners based on experiences and understandings they had back then. The second level consists of the interpretation of the same experience at the moment of data collection based on the real-time understandings and experiences that have presumably developed since then. However, there also several examples of a more simultaneous double hermeneutic cycle in the process of data collection. For example, this occurred when real-time observations of network activities were followed up by face-to-face discussions with the practitioners and where the researcher’s interpretations were corrected by understandings of the practitioners and their view on what has just happened and how it was experienced.

3.2 Data collection

The quality of research is largely dependent on the research strategy chosen to realize the research purposes. While the first appended paper is confined to the existing research literature, the major part of this thesis is built upon primary data. The empirical inquiry

is important due to the assumption that the innovation network practices are shaped and reshaped by network practitioners and that the tourism context posits its own values and beliefs that are different from other contexts (Guba & Lincoln, 1982). The research aims to understand the dynamics of innovation network practices in tourism, i.e. how the practices of a chosen community are formed and developed over time, which suggests that there are a number of criteria to consider regarding the choice of research strategy. First, it is important to focus on a specific community that is organized as a tourism network in order to be able to explore and describe its practices. Second, it is important to follow this community over time to understand its dynamics. And third, it is important to find a good combination of the research methods in order to construct a more holistic picture of network practices, especially due to the number of different stakeholders and their varying interests. These criteria led to the choice of qualitative case study methodology, which assumes that “social reality is created through social interaction, albeit situated in particular contexts and histories, and seeks to identify and describe before trying to analyse and theorize – i.e. it places description before explanation” (Somekh & Lewin, 2011, p. 53). Namely, the explorative and descriptive case study is used to explore how the complex social phenomenon of innovation tourism network develops and changes over time (Yin, 2014) within the tourism context.

To achieve the research purposes, the research methods vary in order to acquire “a wide range of practical skills for carrying out scientific work” (Flyvbjerg, 2006, p.226): from conceptual analysis and positioning the current research within the existing body of literature to several and multiple case study empirical research (Flyvbjerg, 2006; Yin, 2014). The research strategy based on two tourism networks was chosen in order to balance the advantages and weaknesses of multiple case study and single study strategies (Eisenhardt & Graebner, 2007). This means prioritizing a smaller number of units (networks) “chosen for specific reasons” (Easterby-Smith et al., 2008, p. 59) in order to go more in-depth with each study, which is particularly demanding due to the network complexity. Thus, the first empirical study is built on two case studies of business networks. The second empirical study includes a follow-up on one of the two cases (the second network was dissolved by then) but is also extended as a part of a larger multiple case study.² The second empirical study is based on seven regional innovation networks and is conducted by a research team, which means that the cases were distributed between the team’s members to secure that each case “include[s] the complexity of ‘whole’ situations” (Easterby-Smith et al., 2008, p. 59). Thus, a multiple case study did not imply a sacrifice of the in-depth enquiry to coverage of a larger population (Somekh & Lewin, 2011). The research team includes myself (responsible for two networks), Dorthe Eide – associate professor at Nord University Business School (responsible for

² A part of *Opplevelser i Nord* research project; for more detail, see: <http://www.opplevelserinord.no/>

two networks), Kirsti Mathiesen Hjemdahl – senior researcher at Agder Research (responsible for one network), and Veronika Trengereid – Ph.D student at Western Norway University of Applied Sciences (responsible for two networks).

3.2.1 Selection of cases

The empirical enquiry into the data was conducted for the purposes of two empirical studies: first, a study of two business networks, and second, of seven regional innovation networks, wherein the two earlier cases are the spinoffs of the two regional innovation networks studied later in the research process (see Figure 7 below). As shown in the figure below, data collection for the first empirical study took place in 2013. Data collection for the second empirical study took place in 2016, when the data from seven regional innovation networks (coloured light grey in the figure) were collected by the research team (as mentioned above). The repetitive enquiry is essential to fulfil the research objective, i.e. to study the development of innovation networks over time. Initially, the two cases of business networks were planned to be followed from the year 2013 to 2016, when the two main rounds of data collection took place, with respective follow-ups, informal interviews and attendance of the networks' events. However, due to the discontinuance of one of the networks, only one network was followed as planned. Furthermore, the research enquiry in 2016 was also enlarged to include a larger number of cases, as will be described below.

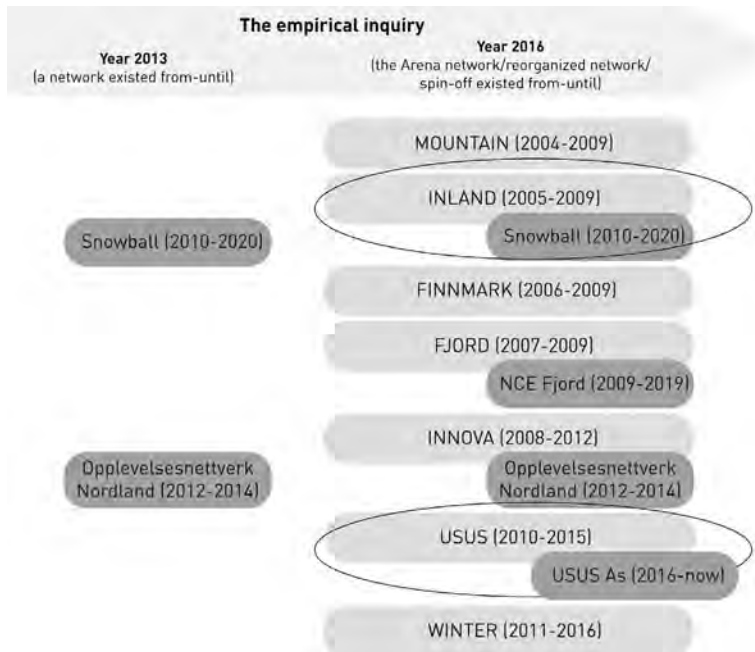


Figure 7. Data collection process distributed over time

Empirical study one (data collection 2013). The choice of cases was based on two criteria: 1) The networks must be a successor of an innovation project to ensure that they work explicitly with innovation and share innovative ideas; 2) The networks must be different in terms of size, structure and management, funding and strategies to demonstrate diverse practices and a variety of innovation patterns in diverse contexts. The first criterion represents information-oriented selection because it aims at maximizing “the utility of information from small samples” (Flyvbjerg, 2006, p.230); there are certain research expectations that the cases will demonstrate the patterns of innovation network practices. Thus, two case studies of tourism business networks, which are spinoffs of the regional innovation networks participating in Norwegian innovation programme Arena (will be described below), in Eastern and Northern Norway were followed, i.e. Snowball (hereafter, SB) and Opplevelsesnettverk Nordland (hereafter, ON), respectively. The choice of cases can be associated with what Eisenhardt and Graebner (2007) call “theoretical sampling”, where the second selection criteria of contrasting data patterns represents “variation cases” (Flyvbjerg, 2006), or “polar types” of networks in order to check for “pattern recognition of the central constructs, relationships, and logic of the focal phenomenon” (Eisenhardt & Graebner, 2007, p. 27). Indeed, the SB network comprises more tourism businesses and of a larger size than ON. SB has a stronger and more consistent representation of educational institutions and public bodies. SB is managed by an externally hired manager compared to ON, which is managed by a leader of one of the network companies. In addition, even though both networks are situated in Norway, differences in natural, cultural and historical contexts of the destinations predetermine tourism character and activities to a larger extent and explain the differences in networks’ funding. The data in the SB case was collected for the period 2010-2013; in the ON case it was collected for 2012-2013. The SB network was followed after the first main round of data collection (2013) through informal discussions, publications and following some of the network activities before it was approached again in 2016 for the second main round of data collection. The ON case wasn’t followed due to the network’s dissolution.

Empirical study two (data collection 2016). The selection criteria in the second round of data collection were that the networks should: 1) be formal and managed; 2) be regional; 3) have innovation as the main task; 4) represent relationships between the industry, R&D and the public sector; 5) exist partly or fully within experience-based tourism; 6) be possible to study and compare retrospectively; and 7) be geographically dispersed in Norway (see Figure 7, coloured light grey). These criteria were demonstrated by the tourism networks involved into the Norwegian Innovation Cluster Programmes, Arena and Norwegian Centres of Expertise (NCE). Namely, Innovativ Fjellturisme (MOUNTAIN), KONvekst (INLAND), ReiselivsArena Finnmark (FINNMARK), Innovativ Fjordturisme (FJORD), Innovative Opplevelser (INNOVA), Arena Usus (USUS), Are-

na Lønnsomme Vinteropplevelser (WINTER) were chosen (see Figure 8 below). This large set of empirical data that seizes the whole population of the tourism networks that have gone through the Norwegian Arena Programme (and one has entered the NCE programme) from 2004 until 2016 is meant to demonstrate similarities and differences in innovation network practices in order to develop new knowledge and share the experience of network practices. Thus, the emphasis is on innovation practices that take place before, during and after networks' participation in the Arena Programme, rather than on the programme as such. The data collection (and data analysis respectively) was distributed between the members of the research team in the following way: Veronika Trengereid collected and analyzed the data from MOUNTAIN and FJORD, Dorthe Eide – INNOVA and WINTER, Kirsti Mathiesen Hjemdahl – FINNMARK, and I – INLAND and USUS (circled in Figure 7), respectively. Kirsti M. Hjemdahl has been a manager of USUS. In order to avoid subjectivity, she collected data and analyzed the FINNMARK case. However, her expertise of network practices and knowledge of the Arena Programme have contributed to the study.



Figure 8. Networks on the map of Norway (source: adapted from Kartverket, norgeskart.no)

The SB network is a spinoff of INLAND. The 2016 data collection in the INLAND case included both the follow-up of 2013 SB data collection but also a more long-term retrospective enquiry that also included the Arena Programme network period that pre-

ceded the formation of the SB network (see INLAND 2005-2009 in Figure 7). In other words, this meant the data collection for the whole history of the INLAND-SB network development from the very idea of its establishment in the year 2003. Another network I was responsible for in the frames of the second empirical study is Arena USUS 2010-2015 and its reorganization into USUS As. 2016-now (see the Figure 7). The idea was not only to extend the research inquiry to a larger number of networks to be able to compare their practices across cases but also to collect data about the whole networks' lifespans in order to learn about their development from their emergence and over longer periods of time.

Presentation and role of Norwegian innovation programmes

The first Arena network in Norway was established in 2002. Among the first were the networks in information security, ICT and electronics, biotechnology and aquaculture (Jakobsen & Røtnes, 2012). The first tourism Arena was established in 2004 in the South-Eastern part of Norway (MOUNTAIN). In 2016, there had been seven tourism Arenas in Norway: two dissolved, one ongoing, four continuing with a different structure or project (including one National Centre of Expertise (NCE)). It is important to highlight that throughout the years, the tourism Arena initiatives came from different parts of Norway, from different stakeholders, prioritizing different activities and different types of members, and having various strategies. The research findings demonstrate similarities and differences across the networks, and maturation of collaboration between tourism businesses in the later networks as a result of cross-network learning and development of the Norwegian tourism industry. The findings demonstrate that there is a web of professionals within the national tourism industry who are important in the development of several tourism networks over time. For some tourism companies, cooperation in the regional, and sometimes national, scale replaced traditional dyadic ties and became a new way of working. Many claim that the innovation is facilitated by bringing together different tourism subsectors, e.g. not only activities and infrastructure but also culture and art, as well as cross-industry cooperation, e.g. technology or media.

Thus, this thesis views networks' participation in national innovation programmes as important for facilitating innovation and regional development of tourism industry. Some of the networks have been evaluated externally; however, the evaluation of network results is often a complex procedure that can seldom be done over a short period of time. One reason for this is that innovation and regional development are long-term ambitions. Separate projects and measures, e.g. new knowledge and competence development, can be evaluated by the short-term goals. The evaluation of other processes, such as the collaborative efficiency, implementation of new opportunities and development processes by separate members, as well as development of the regional innovation systems, is a more challenging task (Fonseca, 2002; Jakobsen, Onsager, Rokkan,

& Nesheim, 2007). Quantitative indicators of regional cooperation and development, such as level of income or new jobs, might not be visible within the three- or five-year span of Arena. And although the qualitative indicators, such as intensified business collaboration, can appear relative, as it is not always possible to attribute them to a specific network activity, qualitative research is important for discovering the processes that led network collaboration to short- and long-term innovation results. Besides, the joint network results cannot describe the specific results of separate types of network members. Some business members argue, for example, that it is hard to say whether separate idea and development results stem from a specific network or not.

A short description of the cases

Innovativ Fjellturisme (MOUNTAIN). The first tourism Arena Programme network established in the South-Eastern part of Norway in 2004. The network continued its development throughout the whole period of the Arena Programme, which is the main period of three years as well as an opportunity to continue in the years four and five. The network was gradually dissolved after the Arena period was over by sustaining several network activities such as annual conferences. The initial vision during the Arena Programme was to establish and maintain profitable business operation with a high attraction capacity in targeted international tourist markets. Since the year 2005, the network's focus was on innovation and international-oriented summer tourism. Initially, the main members in the network were the DMOs. Later, a greater number of SMEs from respective destinations joined the network. The network had representation from the following type of businesses and organizations: accommodation, activity or experiences, marketing and sales. The number of the network members varied from 91 in the beginning to up to 141.

KONvekst (INLAND). The network was established in 2005 in the Eastern part of Norway. The network has continued its development throughout the whole period of the Arena Programme, INLAND2005-2009 (three plus two years) and all the way until the moment this dissertation was written, in 2017. In 2010, INLAND submitted its application to become an NCE to Innovation Norway; the application was turned down. From 2010 and onwards, the network is characterized as a business network (Snowball 2010-2020) with the primary role of serving tourism businesses but largely continuing its memberships from the Arena period, including academic institutions and representatives of public bodies. The network funding in this period is a mixture of membership fees, funds from Innovation Norway and regional public funds. The initial vision during the Arena Programme was to strengthen the region's competitiveness and eventually strengthen Norway's international competitiveness in the culture and experience industries. During the Snowball period, the vision has been to become Europe's most complete region in winter sports and experiences. During the Arena period the

membership was built upon cross-industry initiatives between tourism (winter sports, family park, events), culture and media businesses. The latter have not been represented during the Snowball period and the role of academic and research institutions has been diminishing, at least until 2016. The number of network members at the beginning of the Arena Programme (55) was reduced to 12-14 during the Snowball period. In 2016 and 2017, the network submitted applications for the Arena Programme to increase cooperation and include IT and media partners as well as to strengthen the role of R&D, but the application was turned down by Innovation Norway.

ReiselivsArena Finnmark (FINNMARK). The network was established in 2006 in the northernmost part of Norway. The network continued its development only in the main period of the Arena Programme (three years) and was terminated in 2009 when its application for two extra years of the Arena Programme and its application for NCE were turned down. The network's vision was to increase innovation and profitability within nature- and cultural-based tourism in Finnmark. Initially, Visit Finnmark, which represents the tourism industry had the central position in the network, but gradually a number of tourism companies came along and the Sami government was involved. The number of network members fluctuated from 66 in the beginning to seven when the network was almost taken down to the key stakeholders (board) after two years, and then back again to 59.

Innovativ Fjordturisme (FJORD). The network was established in 2007 in the Western part of Norway, which is traditionally the most attractive region of Norway (fjords) for international tourists. The network continued its development throughout the main period of the Arena Programme until 2009 when it continued its development in the status of NCE (NCE Tourism Fjord Norway) after its application was approved by Innovation Norway. The NCE status and funding are given by Innovation Norway for a ten-year period (until 2019) with intermediate evaluations. The initial vision during the Arena Programme was to become a leading short-term vacation destination in Europe, based on the nature and culture experiences typical for their place. The vision was somewhat changed during the NCE period, namely to become a leading tourism destination within active, nature-based experiences. The network membership is represented by accommodation, transportation and experience businesses, along with culture, micro/small, medium and some larger businesses, as well as DMOs. The number of the network members decreased from about 200 during the Arena period to about 90 during the NCE.

Innovative Opplevelser (INNOVA). The network was established in 2008 in the southernmost county of the Northern Norway. The network continued its development throughout the whole period of the Arena Programme, which at that point of time included three years of the main period and an opportunity for only a one-year extension.

Rejection of the NCE applications in 2013 and 2014, and reduced network activity and member engagement was followed by the network's participation in a pilot in a larger long-term regional financing scheme and access to the national cluster management programme in 2016. In 2017 another NCE application was turned down. The network's vision is to deliver world-class experiences. Initially, the network aimed to involve micro/small businesses involved in experience-based nature, culture and food. Later, some larger companies in accommodation and transportation as well as some regional DMOs also joined the network. The number of the network members was sustained at about 30 members during the Arena Programme but increased in the later period to 50.

Arena Usus (USUS). The network was established in 2010 in Southern Norway. The network continued its development throughout the whole period of the Arena Programme (three years plus two). Three applications for NCE in 2015, 2016 and 2017 were turned down by Innovation Norway. In 2016, the network merged with the regional DMO and formed one organization based on the network platform formed during the Arena period (USUS AS). Throughout the whole period of its development, the network has held on to its vision: to increase re-purchase by re-visit and spreading positive feedback/experience. The network members represent four main groups of companies, namely infrastructure, content, guest streams and distribution. Tourism actively cooperates with culture. The number of network members has been progressively growing from 15 in the first year to about 100 at the end of the Arena period, and has the ambition to increase the membership by 300 as a result of regional growth.

Arena Lønnsomme Vinteropplevelser (WINTER). WINTER is (so far) the last tourism Norwegian Arena Programme network, which was established in Northern Norway (the middle county and partly in the counties to the north and south) in 2011. The network has developed throughout the whole period of the Arena Programme (three years plus two) and has an ambition to continue after the Arena period. In 2015, 2016 and 2017 WINTER submitted its NCE applications, which were turned down by Innovation Norway. The network's vision is to transform the area into a unique and preferred destination with attractive world-class winter experiences. The network membership consists of micro-small experience-based businesses and some larger ones in transportation and accommodation, and Visit Northern Norway. The number of network members has been relatively stable with an increase by ten (to 61) in the end of the Arena period.

3.2.2 Data collection techniques

Data collection techniques depend on the type of data used in a research enquiry, secondary or primary data. The current study is based on both types of data sources and uses a combination of different techniques. The secondary data includes prior research in the area of the development and management of innovation networks in general and

in tourism, in particular; network documentation; and media publication about the chosen networks. Network documentation is particularly important in a longitudinal retrospective study to limit the weaknesses of forgotten activities, events and facts.

However, this research is mainly built on the primary data in order to bring forward the lived experiences of the network practitioners. When it comes to the sources of primary data that can be used in case study research, “there are variations, especially with respect to the balance to be struck between observation and interview – between the researcher’s role and perspective, and that of the participants” (Somekh & Lewin, 2011, p. 54). Since the current research aims to understand the innovation network practices where the practices are, in their nature, observable social occurrences (Nicolini & Monteiro, 2017), observations would be suggested to be one of the primary methods for data enquiry. Besides, “real-time field observations”, where “the primary research instrument is the self” (Somekh & Lewin, 2011, p.131) and one’s own senses, could provide an overview of the members’ engagement and initiatives in the network activities, how knowledge and ideas are shared, and can allow us to “obtain first-hand observations of how changes in the innovations occurred over time” (Van De Ven & Poole, 1989, p. 36).

In the first main 2013 round of data collection, there were conducted two observations of the biannual meetings of the SB owners (network closest geographically) followed by informal discussions of the network practices with the network members who were present at the meetings. Respective notes were taken. This data collection technique served the purposes of familiarizing the researcher with the network, network members and the research context. It provided the researcher with an impression of how the network members interacted, who was engaged and on what matters, how they responded on the suggestions of others present in the room, what was perceived as important and prioritized to be a part of network activities. However, the primacy of this method appears limiting when studying network practices for several reasons. First and foremost, a genuine understanding of a practice is built in the process of exercising the practice that is by engaging into a community of practice. Thus, although the researcher is a “part of what is being observed” according to social constructionism (Easterby-Smith et al., 2008, p. 59), an observation imposes limitations on the understandings of an outsider that are formed by “direct observation of scenes of action” (Nicolini & Monteiro, 2017). Second, when a research enquiry is confined to a particular time period which does not fall on the formation of the investigated networks, a retrospective enquiry of some of the periods is required. Besides, retrospective enquiry was the only way to access the data in the cases of the Arena Programme networks that were dissolved at the time of the data collection. Thus, the main method of the research inquiry is a qualitative interview.

Techniques of data collection used in this study, namely interviews and network documentation, are described in more detail below.

Interviews

Interviews can be used to inquire into the context-bound inter-organizational development and innovation (Langley, Smallman, Tsoukas, & Van de Ven, 2013) and to produce the process data that “consists largely of stories about what happened and who did what when—that is, events, activities, and choices ordered over time” (Langley, 1999, p.692). The interviews were conducted differently in the first and the second main rounds of data collection.

Empirical study one (2013). In order to produce an “event sequence data”, which is the requirement for process research (Poole et al., 2000, p. 91), in this study about the dynamics of innovation practices in the network settings, the researcher engaged in the dialogue with network practitioners to learn and make sense of their lived experiences over time (Alvesson & Sköldbberg, 2000; Halinen & Törnroos, 2005). The interviews were conducted in a manner inspired by Flanagan’s critical incident technique, which sheds light on both objective events and subjective experiences (Fuglsang, 2017). In the context of innovation research, the technique is suggested to serve the purpose of discovering how innovation can remedy a particular activity, the functional description of which sets the research settings. In the current study, however, instead of focusing on a description of a particular functional situation, the researcher encouraged the informant to reflect on critical incidents in organizational practices of the company represented by the informant over a specified period of time and to describe how these incidents were handled. This is in line with the argument that the technique is applicable when the researcher’s intention is “to facilitate the identification of behaviours associated with business development” in the hospitality industry (Chell & Pittaway, 1998, p. 24). In a sense, the idea of interviewing the practitioners who are asked to describe their previous experiences in order to be able to “identify the problems and the innovative solutions” is similar to the initial use of the technique in the innovation research (Fuglsang, 2017, p. 42). However, as suggested by Fuglsang (2017), the critical incident technique in the current research is extended to become “a more reflexive process-oriented approach” that tends to understand service and experience innovation as “being related to everyday practices and experiences” in organizational life. Thus, the technique is expected to produce not the “hard facts”, but rather what emerges from a respondent’s situated experiences”, and thus, allows the researcher to focus “on the cognitive, affective and behavioural aspects of these experiences and their meaning in the context” (Fuglsang, 2017, p. 49). The practitioners’ narratives do not only give meaning to their lived experiences, they might also help to anticipate future development (Mattingly, 1991).

Thus, in the first 2013 round of interviews, the critical incident technique was operationalized by asking tourism practitioners to describe critical incidents and the ways they were handled in the organizational practices starting several years before the

network establishment. Choosing this technique, the researcher was aware that “the choice of what incidents to recount is entirely under the control of the subject; all that the researcher is doing is attempting to ensure that there is thorough coverage of the issues” (Chell, 2014). In the description of specific events and situations, the guiding questions were who, where, when, how and why (Antonacopoulou, 2008a). The prior assumption of the researcher was that due to the often limited capacity of the small tourism companies and their situatedness in a particular destination, the companies might look for the solutions of their organizational challenges together with other companies in the destination realized in innovation network practices (that are also often publically funded). The experience was indeed that at some point companies actually arrived at collaborative solution to their challenges, and this moment was often associated with the beginning of their membership in the investigated network. Furthermore, the first 2013 round of data collection allowed the researcher to enquire into how network participation has changed the everyday practices of the companies. This also defines the underlying assumption that the tourism practitioners exercise their practices in the companies, but that they also constitute the network practices. Thus, during the interview, the researcher secured the zooming effect “alternat[ing] between a focus on the accomplishment ... in specific places and an attempt at making sense of the associations between different local accomplishments of the practice and other more distant activities” (Nicolini, 2009, p. 1395). In this way, the study deals with two levels of analysis and the relation between the two in the process of network practice (Nicolini et al., 2003), i.e. a company and the network perspectives, during the data collection. And while the first part of the interview was not explicitly built upon asking about the network practices, all the informants agreed upon the importance of coupling the two types of practices in innovation work, which in most cases led to the explicit discussion of the development of innovation network practices over time in the second half of the interview.

In order to mitigate the limitations of mainly retrospective inquiry and potential bias of the business participants’ perspectives on innovation network processes, the data was also collected from the network management (also R&D and support organizations in SB) and thus included “diverse perspectives” that complement each other (Eisenhardt & Graebner, 2007, p.28; Flyvbjerg, 2006). Besides seeking different perspectives on network practices by the involved members, the selection criteria for informants included their knowledge and experience of the network processes, involvement in network projects from the moment of network re-organizing from the Arena Programme network to business network (from the formation of the current spinoffs) and until the moment of data collection, and business members being representatives of experience-based tourism (activities or attractions). The face-to-face interviews of 45 min to 1.5 hours duration each were conducted with an owner, manager or marketing director of a business member or respective representative of R&D or public organizations. The

interviewing aimed at unfolding the description of the main events and processes in the network practices over a period of three years in SB (since the network formation in 2010) and over a period of one and a half year in ON (since the network formation in 2012). The number of the interviews and the type of informants in the first 2013 round of the data collection are presented in the table below. See respective interview guide in Attachment 1.

Table 6. Interviews in the first round of data collection (2013)

Network/type of informant	Interview with member companies	Interview with network management	Interview with R&D and other public organizations
SB	3	1	1
ON	5	2	-

Empirical study two (2016). As mentioned above, initially the idea was to continue following both networks in order to increase understanding of the patterns revealed in the first round of interviews as well as to discover new patterns in network practices and their role for organizational practices of network members over time. However, it turned out to be impossible in the ON case due to network discontinuance in its initial form. The follow-up was conducted with the SB network; however, the research settings as well as interview technique were different. Regarding the research settings, the study was enlarged to include seven regional innovation networks with the intention to learn about innovation network development before, during and after their participation in the Arena Programme. In this round, the focus was more on the network practices than organizational practices of network members, rather than the other way around, as it was during the data collection in 2013. For the SB network, which is the spinoff of the INLAND network (one of the seven regional innovation networks), it meant that the interviews collected in 2016 had to cover both the INLAND period (2005-2009) and the SB period (from 2010 until the moment of data collection in 2016) or in total about 12 years of network development. Besides, as a part of the research group, my responsibility was to conduct interviews and analyze the data from the USUS network over the period of about six years: from 2010 when the network was established until 2016 when the data was collected.

The interviews were conducted based on semi-structured interview guides developed for each group of stakeholders: tourism businesses, management as well as R&D and supporting organizations. Similar to the first round of data collection, the intention was to involve all knowledgeable informants with network expertise to reflect the different complementary perspectives (Eisenhardt & Graebner, 2007) (the number of the interviews is shown in the table below). The interview guides were partly developed based on the preliminary categories inductively developed in the first round of data collection and

partly based on a wider literature review in the area of innovation network development. The main topics were the background of establishing network (1), network development during the Arena Programme (2), network development after the Arena Programme (3), innovation processes and results (4), network board (5), experience-based focus (6), engagement (7), cross-network cooperation (8) and gender issues (9), as well as the introduction and sum-up sections. Each topic also included respective sub-questions. The intention with the first three topics was to learn more generally about practices and processes that took place in the network development and whether these practices were perceived as identifiable periods of network development. Further, the innovation processes and results (4) were expected to be discussed and attributed to the periods identified above. The next four topics (5-8) were expected to bring forth more details on how innovation network practices are exercised (6, 7, 8), including the discussion of experience innovation and engagement in and beyond network practices, and how these practices are orchestrated (5, also 2, 3). And finally the last topic about the importance of gender in the network processes (9) was addressed for the purposes of further research. Similarly to the first 2013 round of interviews, the guiding questions of “when”, “how”, “why” (Antonacopoulou, 2008) a particular practice took place and “who” was engaged in it were asked in order to shed light on the complexity of network practices (a version of the guide for the tourism businesses see in Attachment 2.).

In order to preserve the variance in terms of types of the network stakeholders (which, among other things, is also important for innovation practices) and at the same time to make sure the data will cover the dynamics of innovation practices over time, the following selection criteria for firms were chosen: a variation being a member of the network board or not; being network members for at least two years; different experience subsectors (variation within nature, culture, food); other firm types (accommodation, transport); size; geographic location and gender. Within three other types of stakeholders (except firms), the most involved into network activities were interviewed. Face-to-face and Skype interviews (few phone interviews) were conducted. The average duration of the interviews was 1.5 hours. The number of the interviews and the type of informants in the second 2016 round of the data collection interviewed by me (I.) and the rest of the research group (II.) are presented in the table below.

Table 7. Types and number of informants in each case (I. = conducted by me. II. = conducted by other members of the research team) 2016

	Network	Business members	Network management	Public or other supporting organizations	R&D
I.	INLAND (INLAND+SB periods)	5 (2 follow-up)	3 (1 follow-up)	2	2 (1 follow-up)
	USUS	5	2	2	1
II.	MOUNTAIN	3	2	2	1
	FINNMARK	4	2	4	2
	FJORD	7	3	3	2
	INNOVA (2011/2016)*	2/8	2/1	2/3	0/1
	WINTER	7	2	3	2

*prior to data collection in 2016, primary network data was also collected in 2011 (round 1). The data was found useful for the current study.

Documents

In both rounds of data collection, the network documentation was used to limit the weakness of retrospective research, e.g. omitted or inaccurate facts. Among the types of documents collected were evaluation reports, action plan, network application, data from the networks websites as well as internal network materials such as project accounts and presentations from meetings and conferences. Different types of documents contained various types of data, i.e. included one or several of the following points:

- about the network, e.g. network's history and organization, management and membership, vision;
- network activities and projects;
- network results, e.g. competence development, innovation results and results of cooperation with the R&D actors, other types of results;
- attainment of network goals, e.g. project results, specific economic indicators;
- action plan/ambitions for the future periods.

The documents used by me to study the two business networks in 2013 and two regional innovation networks in 2016 are presented in Table 8 below.

Table 8. An overview of the documents used in the research inquiries

Network/type of informant	Documents	Round
SB	<ol style="list-style-type: none"> 1. Project accounts (2010). 2. «SNOWBALL» – a cluster analysis by Eastern Research Institute 3. Evaluation report 2010–2012 4. Action Plan Snowball 2013–2017 5. Data and updates on the website 	Round 1
ON	<ol style="list-style-type: none"> 1. Application for the main project of ON: year 2012–2014 2. Data and updates on the website 	
INLAND (SB)	<ol style="list-style-type: none"> 1. Mid evaluation of Arena (2005-2007) 	Round 2
USUS	<ol style="list-style-type: none"> 1. PowerPoint presentations from the board meetings 2. Media coverage of the network events and partners 3. Website content and updates including membership, ongoing projects and activities 4. Evaluation report of Arena USUS by Menon Economics (nr 25/2016) 	

Strengths and weaknesses

The main strength of the data collection is the complementarity of different methods, techniques and informants' perspectives that secured rich data about the development of innovation network practices. Besides, conducting the research inquiry as a part of research group allowed to avoid the dilemma of depth versus coverage (Flyvbjerg, 2006; Somekh & Lewin, 2011) when the responsibilities for data collection and analysis were distributed equally, which allowed for deeper analysis of the whole population.

The main weakness of the empirical inquiry related to investigating the development of network practices over time is limited participation in network activities and the limited number of observations that could have brought researcher closer to the everyday life of the network practitioners as is done, for example, by Rasmussen (2016). Some network cases are studied with more comprehensive observations and interactive research, including leading and participating in networks' projects, participating in the board meetings and other activities continuously or over periods of time by two researchers in the research team. However, research results could be strengthened if such strong data about all networks were available. The researcher can often benefit from the real-time observations by getting impartial perspectives on network activities in general as well as processes of knowledge sharing and idea generation, in particular.

However, there is also a danger in interpreting the practices of others from observations because the researcher is not directly involved into the practices and may risk misinterpreting what she has observed. On the opposite end, interviewing practitioners

and formally or informally discussing their interpretations of the organizational and network practices may lead to a more certain analysis. Besides, the closed networks in the second (2016) round of data collection were the reason why the research team was not able to conduct real-time observation of the cases.

Another weakness of the research enquiry is the unforeseeable discountenance of the ON network, which prevented the researcher from following the network in the second (2016) round of data collection. And while studying such a network can suggest interesting findings in itself, the preference was given to studying the whole history of the SB network instead in order to realize the longitudinal perspective on network development and opportunity to see its development in comparison with other regional innovation networks.

And finally, another weakness is related to the interview process. First, during the data collection in 2013, the critical incident technique at times required additional explanations related to the researcher's expectations because of the open manner of the interview processes, which contained very few guiding questions. At the same time, such guiding questions were sometimes essential as informants were sometimes too broad in describing their experiences. Second, a fewer number of interviews were conducted in two dissolved networks in the second (2016) round of data collection.

3.3 Data analysis

The complexity of the context-bound phenomenon of innovation network practices and their dynamics implies a multifaceted and primarily empirical research inquiry. This complexity has respective consequences for the analysis of data and writing up of the findings in the four papers appended to this thesis. The first conceptual paper aimed at positioning the current study in the broader body of research on collaboration and its role in innovation in tourism with a help of snowballing method and a more deductive analysis. The paper 1 contributed by building a conceptual framework, where the main categories were derived from the existing body of research.

However, the data analysis process in the empirical papers that constitute the major part of this thesis is largely similar across the three papers (Paper 2, 3 and 4). The data collected for the purposes of the first empirical study in 2013 (Paper 4) were repeatedly analyzed in light of the data collected in 2016. It also provided an opportunity to supplement the data collected about the SB case in 2013 with a new insight from the data collected in 2016 (Paper 4). At the same time, Paper 2 and 3 are built on data collected in 2016 as well as SB-related data from the first (2013) round. Thus, the writing up of the results of the analysis in the form of articles took place almost simultaneously.

As follows from the philosophical position of this thesis, the researcher has certain

assumptions that imply expectations of the data. These assumptions are then supported and advanced, corrected or discarded in the process of analysis of interpretations of the contextual experiences of the network practitioners. The preliminary interpretations began during the interview processes with the help of drawings and keywords related to the enquired issues in the first (2013) and second (2016) rounds of data collection. During the data collection for the first empirical study (Paper 4), the focus was on how informants became a part of innovation networks (that is what organizational challenges such collaboration was meant to address in the first place), as well as how innovation network practices develop further and how they spread from network to the organizational practices of network members. Data collected for the second empirical study (Paper 2 and 3) was meant to cover a number of aspects of development of innovation network practices, and the focus and preliminary interpretations during the interview process were concentrated around potential phases of network development. An example of an important drawing to provide an overview of the dynamics of innovation practices over time especially in the second (2016) round of data collection (Paper 2) was, for example, a network timeline (see an example in Attachment 3). The timeline was prepared before the interviews based on available documentation and sent to the informants (including the dates of network establishment, funding periods, number or participants). During the interviews, the informants were encouraged to mark important activities, events and processes on the timeline, in addition to the network's positive and negative developments. Once the interviews were transcribed, the analysis began as an open exploration of innovation network practice, informed but not limited to those suggested by the research literature (some of the categories found during and after the data collection for the first empirical study were also tested in the analysis for the second empirical study).

In other words, the data analysis was carried out as back and forth process between a more open category development (Merriam, 1998) and content analysis that was inspired by the theoretical categories (Miles & Huberman, 1994). The latter informed the current study with the findings of the previous research and facilitated the identification of some of the expected categories in the data. For example, in empirical study two, which focused on the development of innovation network practices over time (Paper 2), the inspiration for theoretical categories came from the combination of the variance theories, explaining phenomena in terms of variables, and processes theories, explaining phenomena "in terms of the sequence of events leading to an outcome" (Langley, 1999). Empirical study one (Paper 4) focused on the emergence of network innovation and its spread to organizational practices of network members, and was particularly inspired by the practice-based research, or more precisely by the idea that a practice comes into existence through the integration of its constitutive elements (Antonacopoulou, 2008; Pantzar & Shove, 2010). However, the more open category development suggested a

number of adjustments and additions to these theoretical preunderstandings as described below. Thus, in developing conceptual constructs, the study partly follows Eisenhardt and Graebner (2007) in generating a theoretical construct about the phenomenon and then testing it with the data.

Thus, the data analysis of the second empirical study (Paper 2) focused on the development of innovation network practices over time and interviews and documents from one case (INNOVA) were analyzed systematically to locate the preliminary codes characterizing the development periods of the network. The preliminary codes were focus and results, member recruiting/exit, engagement, involvement of R&D and activities, triple-helix relations, network management, resources/financing, crises and other hampering/facilitating factors. At this stage of data analysis, the research team also became mobilized in order to discuss the preliminary analysis of the INNOVA case. Several of the preliminary factors that characterize network development (e.g. engagement) were added to the categories suggested by the previous research as the result of the interactions with the industry. The factors that were added to those suggested by more traditional process theories (Langley, 1999; Van De Ven & Poole, 1995), demonstrated a good fit with the practice-based perspective on networks that was added to advance the initial theoretical framework (Paper 2). This placed the paper into the category of “stronger process studies” because it then approached innovation “as an emerging pattern in ecologies of interrelated changes” and rejecting “previous understandings ... as a simple, planned, ‘thing’-like ... processes” (Fuglsang, 2017, p. 54). The framework was further used in the data analysis of the study focused on dynamic and situated orchestration of innovation networks (Paper 3) informed by the previous research on network orchestration over time and inductive analysis of network orchestration from the primary data. Since the framework was also built upon the previous empirical work of the research group (Paper 2), there were no significant adjustments to the framework when it comes to the network development model (that accounted for more nuanced picture of innovation network development over time compared to life-cycle stage progression commonly used in innovation network research (Green et al., 2013). However, there were certain adjustments when it comes to the categories of orchestration roles suggested by research literature (Nilsen & Gausdal, 2017), such as new orchestration role found crucial in orchestration of regional innovation networks in tourism.

Similarly, in the analysis focused on the emergence and spread of network innovation to organizational practices of network members (Paper 4), the analysis of several interviews from each case suggested the adjustments to the categories of the constitutive elements of practice that better fit the network context. In addition, all elements of network practice are seen as a combination of the elements of organizational practices of network members as well as other elements generated beyond the networks, e.g.

network funding, this implied somewhat different meaning for the “material” and “image” elements of practice suggested by Pantzar and Shove (2010). Namely, the “material” element of practice meant to describe physical things used in exercising a particular practice was enlarged to include network’s resources more generally, including financial, material resources and facilities at the network’s disposal. Besides, the “image” element of practice in the network context was closely associated with the vision of innovation network practices. Additionally, the preliminary analysis suggested the cumulative rather than consecutive nature of the process of network practice formation where the constitutive elements of practice are being added on, culminating in the formation of the shared vision of network future. The data suggested that the integration of these elements into well-functioning network practice is delayed until the moment when the companies start integrating the network ideas into company practice and learn to make use of it, also innovation-wise. This insight turned out to demonstrate different understandings of innovation, i.e. innovative ideas rather than more tangible innovation, from the existing theoretical perspectives on spread of innovation. This supports the description of the research progress in a constructionist study by Easterby-Smith et al. (2008, p. 59): the process of “gathering rich data from which ideas are induced”.

The preliminary analysis of the data helped to form theoretical constructs (Eisenhardt, 1989) described with the help of metaphors. The role of the researcher here is to find a proper metaphor to be able to translate the research findings and make them accessible for the reader. The metaphors that are used in Paper 2 and 3 have been previously used in innovation research. Namely, the metaphors of a *journey* (Van De Ven et al., 1999) and *orchestration* (Dhanaraj & Parkhe, 2006). The metaphor that is used in Paper 4, i.e. *mirroring*, has, to my knowledge, so far not been used in the context of the emergence and spread of network innovation. The understanding of the mirroring process is developed from the work of Michel Foucault (Foucault & Miskowiec, 1986) and is used in the current study to explain the spread and enactment of network innovation to the practices of network members.

The categories developed in the process of adjusting theoretical preunderstandings by the data from a sample of interviews, formed the codes, according to which the rest of the data was analyzed and systemized in each network-case (in each paper). All the interviews in each case were analyzed and systemized in a separate working table with the respondents listed vertically and the investigated patterns horizontally (as demonstrated in Attachment 4). As shown in the attachment illustrating the example from the study of network orchestration over time (Paper 4), the phases (and in some cases crossroads as it follows from the framework) are placed horizontally so that the researcher can further identify the categories of specific orchestration roles (theoretical categories) within each period of network development and the way they are distributed over time. Further de-

velopment of the categories in each case led to new tables with the investigated patterns horizontally and categories characterizing them vertically. In the example given above, the location of the categories of orchestration roles over different periods of network development were documented in new working tables with the periods of a network's development set horizontally and orchestration roles vertically (as in Attachment 5), with a separate row for new categories of orchestration roles found inductively. These tables were further summarized, as shown in Attachment 5A with the roles' categories horizontally and the way they are distributed over time vertically (the tables are presented for familiarization purposes and are not necessarily the last version, which further research findings are built on). The cross-case analysis followed: it demonstrated similarities and differences across the cases as well as reasons for both. When the cross-case analysis was done by the research team (empirical study 2: Paper 2 and 3), all the members of the team participated and contributed to calibrating similar patterns with consistent categories and processes in personal and/or Skype meetings³. In the case of the orchestration study (Paper 3), the cross-case discussions led to the agreement on the categories and subcategories, which each category of innovation network orchestration consisted of as well as the main patterns of how the orchestration roles changed in different periods of networks' developments over time (both tables are presented in Paper 3 as Table 3 and Figure 2, respectively). Then, the findings were written as a compilation of consecutive descriptions challenged by the limiting format of a scientific article (from rather "thick" to "shallow") (Flyvbjerg, 2006). Both homogeneous and heterogeneous patterns, where particularly the latter unfolded "complexities and contradictions" (Flyvbjerg, 2006, p. 237) across the cases, were described. Both cross-case replications and contrasts led to a better understanding of the context-, time- and value-bound innovation network practices (Guba and Lincoln, 1982). Finally, the analysis of the findings against the suggested conceptual frameworks, which generalize them on the level of theoretical abstraction, was done and contribution discussed. Thus, instead of the development or change in the existing theories, the case study method here served the purposes of generating at most "soft" or middle-range theory, largely grounded in the empirical phenomenon, which does not aim at generalization per se or prediction but rather better understanding, and testing it (Flyvbjerg, 2006). The purpose of the research is, thus, to share previous experiences from innovation network practices with other network practitioners, management and policy organizations, who may derive new knowledge from it.

3 More detailed picture of how the responsibilities were distributed among the members of the research team in the empirical study two, see in the Attachment 6 (Paper 2) and Attachment 6A (Paper 3)

3.4 Quality of the research

In this section, the reflections on the choices made during the research process in relation to the trustworthiness of the research inquiry are presented and discussed. There are no fixed strategies for analyzing qualitative data and, therefore, there is a need for a continuous reflexive process to demonstrate what and how the research has been done that led to specific findings. The continuous reflexive process, also termed “validity as a process” (Cho & Trent, 2006), is important for securing transparency of the choices made during the research process so that the reader has an opportunity to evaluate the argumentation. Whatever strategy is found “useful for shedding light at the research problem statement”, it must be possible to evaluate the data and the findings (Olsen, 2001, p. 69).

Although the data analyses in the empirical papers is somewhat different depending on the complementary research purposes (no “right” way), the trustworthiness of qualitative research needs to be elaborated when it comes to the following strategies: (a) *bottom-up perspective*, (b) *thick descriptions*, (c) *conceptualization* and (d) *interpretation* (Olsen, 2001).

(a) *The bottom-up perspective* defines the content of the data as the origin of sense-making of the network processes by the informants and is not predefined by the researcher, and is demonstrated instead by the inductive explorative nature of the analysis, although it is inspired by the pre-determined categories from the research literature. In the majority of the interviews, the research purposes were explicitly discussed with the informants and perceived by them as “relevant and important” (1). Interaction between the researcher and the informant during the interview process was meant to secure the compatibility of understandings between them (2). In addition, the companies that were interviewed in the follow-up (2016) received a copy of the transcribed material from the first round (2013) and orally confirmed the key points of the first interview summed by the researcher (3).

(b) The main categories in the empirical studies (e.g. the categories of phases and crossroads, orchestration roles and their distribution over time, or elements of practice) were developed from the “*thick descriptions*” of the network experiences by practitioners generated during the interviews and were crucial in within- and cross-case analyses for locating similarities and differences (not least given the contextual details that they contained). These “thick descriptions” had to be condensed to describe the content of the categories in the format of scientific papers, but are illustrated by the quotes from the data.

(c) Extracting and generalizing the development of innovation network practices from separate cases allowed sifting of the data to the main categories (as mentioned

above), i.e. “to conceptualize” (Olsen, 2001, p.70) by giving them names and describing them.

(d) And finally, the *interpretation* of the relations between the categories extracted from the data (these relations are demonstrated by the frameworks of “innovation network journey”), distribution of the orchestration roles over time and “mirroring” in the three empirical papers and the comparison “against larger theoretical perspectives” took place (Ely, Vinz, Downing, & Anzul, 1997).

Several of these strategies have certain overlaps with the four criteria of the trustworthiness in qualitative research mentioned by Guba and Lincoln (1982), i.e. credibility, transferability, dependability, confirmability. Thus, the bottom-up perspective overlaps with credibility criteria, thick descriptions strategy is used to secure transferability and conceptualization helps to secure dependability.

Credibility

Credibility is defined by “verisimilitude between the data of an inquiry and the phenomena those data represent” (Guba & Lincoln, 1982, p.246). In other words, credibility of the research inquiry is plausibility of the empirical data set in relation to the research problem. As mentioned earlier, the bottom-up perspective is a strategy to help to secure the credibility criteria. The three measures that secure the bottom-up perspective in the current study (see above) were undertaken to secure that “the data sources (most often humans) find the inquirer’s analysis, formulation, and interpretations to be credible...” (Guba & Lincoln, 1982, p.246). In addition, the documented materials and the few observations in the SB case aimed at triangulation of data sources and as a result strengthened the reliability of the data. To reserve the research results from bias that may stem from the inspiration by previous research findings, the codes and categories were systematically developed from the data collected for the purposes of the study.

More generally, research validity (credibility is also known as internal validity in positivistic terms) can be associated with the quality criteria of research by Kvale (1989), i.e. (1) research *craftsmanship*, (2) *communicative* and (3) *pragmatic validity*. (1) *Research craftsmanship* is mastery of the qualitative data including the analysis, interpretation and theorization (Olsen, 2001), the process that is discussed and reflected upon in the data analysis subsection (see 3.3.). (2) To reach *communicative validity* is to prove the credibility of the research results to others. The communicative validity of the current research is reflected in thoroughness of the research measures, e.g. transparency of the data and analysis, triangulation of the data, and is strengthened by the effort of the research team, which required multiple discussions during the research design process, data collection and analysis and joint interpretations to reach understanding and calibrate the similar content that describes the categories. The dual roles of researchers in the research team,

i.e. as independent researchers and as participants in the network processes, and their tacit and explicit knowledge, have contributed to the increased plausibility of the data and the phenomena those data represent. In this sense, the credibility of the analysis and findings in the paper written by the researcher individually (Paper 4) requires more explicit elaboration. Namely, the evaluation of the research design and tools, and their fit with the data was presented and discussed at the 24th Nordic Symposium on Tourism and Hospitality Research in September 2015 in Reykjavik. Besides, the sense-making of the network practices by the respondents during the data collection expressed explicit concern about the importance and difficulty of continuous integration of the network ideas into company practices, which became one of the central issues in the paper and is reflected in the concept of “mirroring” and “practice reconstitution”. Therefore, it can be argued that the research was guided by an empirically posed challenge. In addition, the paper was presented and discussed with the colleagues from the research centre for innovation in services – in the private and public sectors (INSEPP), where patterns found in the current research were consistent with some of those identified in other tourism subsectors by other researchers representing the centre. (3) Finally, the *pragmatic validity* of qualitative research is not about scientific justification, but about applicability of the research results and achievement of specific goals, i.e. increased understanding of the development of innovation network practices and the opportunity to learn from their experiences by other tourism networks, can be argued to be achieved.

Transferability

The pragmatic validity is somewhat similar to the criteria “transferability”, that is the possibility of applying the findings in other contexts (Guba & Lincoln, 1982). While new knowledge that has been developed in the current research cannot be generalized, it can be relevant in other contexts, but it must be explored, since people, practices and knowledge are situated in time and contexts. The research findings in the empirical papers of this study, particularly those developed from the larger data set (Paper 2 and 3), and partly Paper 4 have some degree of transferability because of several reasons: 1. The research sample sizes the whole population of industry-specific regional innovation networks; 2. The processual methodology implies prolonged engagement of the researcher in the research context; and 3. The “thick descriptions” about “sending” context were collected. It can be suggested that, for example, other formal network programmes beyond national boundaries, e.g. in Europe, can learn from the innovation network development of the Arena Programme networks discussed in the papers appended to this thesis. While Paper 2 and 3 (based on the larger data set) draw on theoretical-purposive sampling “to maximize the range of information collected and to provide most stringent conditions for theory grounding”, the transferability criteria in Paper 4 written individually can be more sensitive due to fewer cases. However, the combination of purposive sampling in the first criteria and “variation cases” in the second selection criteria (Flyvbjerg, 2006) is meant to control for some degree of transferability.

Dependability

Dependability is defined by the stability of the research findings stemming from the same set of data discounting conscious and unpredictable changes caused by the emergent design of a research inquiry. The dependability of the current study was sustained by validation of the analysis and interpretations within and outside of the research team. Different options for approaching the analysis and interpretation of the data that were suggested by the peers in the drafting and editing process were taken into account. When it comes to working in the research team, the negotiated research design did not indeed lead to the full correspondence of the results of the data analysis given different background and competencies of the team members. The negotiation and calibration of the content required additional work and therefore, resulted in increased dependability, improving the effectiveness of the research methods and consistency of the research findings.

Confirmability

The confirmability of a qualitative research inquiry means that the “findings are the result of the experiences and ideas of the informants, rather than the characteristics and preferences of the researcher” (Shenton, 2004, p.72). In other words, regardless of personal values and preferences of the researcher, it is crucial to make sure that the findings are supported by the data. First of all, the preliminary assumptions of the researcher built on knowledge and experiences from the tourism industry combined with new theoretical knowledge acquired before the data collection were addressed during the interview processes and informal discussions with tourism practitioners. Some of these assumptions were confirmed by the practitioners, while others were rejected, given the contextual particularities. For example, an expectation of the researcher about an eight-year-long collaboration history between the industry and R&D partners in one of the networks to be well-functioning and mutually beneficial was dismissed. As the result, the researcher requested additional comments to understand the reason for the unsuccessful collaboration. Similarly, the researcher’s assumptions were treated before and after the observations of the network activities by further discussing them with the practitioners. In addition, in the process of analysis of the data, the confirmability was increased by moving forth and back between theoretically inspired codes and the empirical data to find respective matches and deviations, as well as explanations for the latter. Both examples illustrate that the researcher has continuously reflected on the assumptions and biases that could have influenced the research enquiry and findings. And finally, the results of data analysis in Paper 4 on the orchestration of innovation networks were presented to formal network orchestrators who gave their feedback on the variety and priority of the roles and tasks of network orchestrators from their daily work.

The four criteria of trustworthiness of the current research enquiry are summarized in

the table below.

Table 9. Research trustworthiness

Criteria of research trustworthiness	Definition	Measures to secure these criteria
credibility	plausibility of the empirical data set in relation to the research problem	Development of the research design so it accommodates the main problem statement and research questions Development of the data content based on sense-making of the network practices by the informants, including interactions with the practitioners, explicit discussion of the research purposes, as well as repetitive data collection over a specified period of time
transferability	possibility to apply the findings in other contexts	Sizing the whole population of industry-specific formal networks in the research sample Using processual methodology implies prolonged engagement of the researcher in the research context Collection of the “thick descriptions” about “sending” context (somewhat preserved in the drafting process but sacrificed in the final versions of the articles due to their format)
dependability	stability of the research findings stemming from the same set of data	Development of a thorough description of methodological choices and how they were applied in the current research Continuous reflections on and discussion of methodological choices with the peers Negotiation and calibration in the research process related to working in a research team
confirmability	findings are the result of the experiences and ideas of the informants	Positioning the research and forming theoretical preunderstandings prior to data collection Recognition of own assumptions Discussion of research purposes with the network practitioners and thus contrasting the formed preunderstandings and the researcher’s assumptions with the data Comparison of preunderstandings and theoretically inspired codes with the empirical data, and approval/dismissal of the former (and reasons for that), respectively Presentation of the results of analysis (paper 4) to network orchestrators to make sure that developed categories find a place in practice

This chapter presented and discussed methodological choices made in order to enquire into the dynamics of innovation network practices.

4 SUMMATIVE DISCUSSION AND CONTRIBUTION

The purpose of the chapter is to reflect upon how the study has been framed, as well as to summarize and elaborate on the findings of the separate papers in order to further model and integrate theoretical and practical implications of the study.

The main contribution of this thesis is the use of a practice-based perspective to understand the dynamics of innovation networks. This means looking at practices that characterize the formation of a network and its development over time, in addition to mirroring innovation network practices in the practices of network members. The concept of complex, social and embedded *innovation network practices* (INP) that characterize different temporal periods of innovation network development, which is central to this thesis, serves as an umbrella for the theoretical contributions of separate research papers and points at directions for further research. And although the INP framework is built upon practices as the main unit of analysis, its theoretical implications go beyond practice theory and theorizing about tourism regional innovation networks and tourism more generally as practice. The INP framework has also implications for the network and innovation theories, as it is developed at the intersection of all three theories. In the network theory, it has implications for the “networks as communities” perspective where networks are seen as an important arena where knowledge is produced and shared: the study brings forth the idea that network innovation takes place in the bundles of practices that formal and informal network communities exercise. In the innovation theory, it offers an alternative to the integrative approach to innovation in different sectors of the economy (Gallouj & Weinstein, 1997) by developing the process view on innovation (Tether, 2005): this thesis suggests that innovation is achieved as a result of a long-term and purposeful recombination of the core elements of practice (i.e. image, skills and resources, as inspired by Pantzar and Shove (2010)) in everyday tourism practices. And finally, in relation to practice theory, the study demonstrates that the INP can indeed accommodate the dynamic perspective on innovation networks that advances our understanding particularly of the emergent context-dependent innovation network processes compared to the dynamic perspectives existing in the research literature (Green et al., 2013). The existing research sees networks’ dynamics mainly as changing number and characteristics of the network nodes (network members) and ties between them (Ahuja et al., 2012; Powell et al., 2005). While the INP suggests that in order to study such a complex phenomenon, it is necessary to combi-

ne a number of different streams of practice research, namely genealogical, dialectical and configurational (Nicolini & Monteiro, 2017) as it will further be discussed below.

Work on this thesis was divided into four parts where respective research questions were addressed. First, the practice perspective was suggested as a relatively new approach to understand collaboration on innovation beyond organizational boundaries (Wenger, 2000). Second, this thesis challenged a more traditional structural-relational perspective on collaboration and its development (Ahuja et al., 2012; Newell et al., 2009) by questioning whether this abstract dynamic perspective can indeed alone provide an insight on what, how and why actually happens in innovation networks over time. The new understanding of the development of innovation networks as diverse and iterative (developed in the previous step) posed a question of whether management described as orchestration (Nilsen & Gausdal, 2017), due to the networks' complexity and loosely coupled nature (Orton & Weick, 1990), can be limited to the orchestration roles distributed over the phases of a network life cycle existing in the research literature. And finally, the implications of the dynamics of innovation networks (Sørensen & Mattsson, 2016) for the practices of network members were studied. The summary of work done to explore the four research questions in respective papers is provided in Table 10 below. The table includes five columns: (1) research questions addressed, (2) articles where these questions are posed, (3) knowledge gap that research questions are a response to, (4) the main contribution of the respective papers to the research gaps identified, (5) contribution of the papers articulated through the main points.

The remainder of the chapter is first built upon summarizing and further elaborations on the contributions of the separate research papers to the four research questions. Then, this chapter presents an overarching theoretical framework of innovation network practices (INP). Such a framework implies a building of the relationships between the sets of categories developed in separate papers, explaining reasons for that, as well as defining the temporal and contextual boundaries of the research findings generated by this thesis (Whetten, 1989). Further, the implications of the INP framework are theorized as balanced innovation. Balanced innovation is defined as an innovation process where network members need to continuously balance between integrating innovation practices that originate in the networks into the firm practices and preserving ongoing core firm practices. This is followed by the policy and managerial implications of the current study. Further, the limitations of the current study are discussed and further research directions suggested.

Table 10. Summary of the contributions of the research papers appended to this thesis

Research question	Article	Knowledge gap	Contribution	Main points
1. <i>What characterizes the main theoretical approaches to collaboration on innovation in tourism?</i>	Towards a multilevel framework of collaborative innovation in tourism	Absence of systematization or comparison of the theoretical approaches to collaboration on innovation in tourism	Analytical framework representing different approaches to collaborative innovation in tourism	<ol style="list-style-type: none"> Five theoretical approaches to collaborative innovation are systematized and discussed with respect to tourism The sixth approach of the institutional environment is developed as an alternative strategy for studying collaborative innovation in tourism Development of the analytical framework with three cross-cutting dimensions (collaborative density, durability and place) that vary across the sixth approaches The six approaches are spread out across categories and subcategories of the analytical dimensions characterizing their innovation potential
2. <i>How do innovation networks develop over time?</i>	Dynamics of innovation networks: phases and crossroads in seven regional innovation networks	Limited understanding of the context-dependent emergent processes in the development of innovation networks over time	Research framework <i>innovation network journey</i> that increases understanding of the dynamics of both planned and emergent processes in innovation networks in tourism	<ol style="list-style-type: none"> Development of a new theoretical framework to study network change based on a combination of organizational models of change and process- and practice-based approaches Further development of the framework in the analysis of seven regional tourism innovation networks Description of the phase-specific processes with a growing degree of divergence across the networks in the later phases Development of a new category of crossroads and critical factors leading to them to explain the differences in the development of innovation networks
3. <i>How are innovation networks orchestrated over time?</i>	Dynamics of network orchestrators' roles in innovation network journey: a multi-case study	Limited understanding of the nature of orchestrators' roles in innovation network development over time	Development of roles of network orchestrators over time and distributing the situated and dynamic roles across the phases of innovation network journeys (see above)	<ol style="list-style-type: none"> Development of the main claim: network orchestration is situated and dynamic Development of six roles of orchestrators of innovation networks in tourism (theoretically inspired and further developed from the data) One additional (to the existing in research) main role with subcategories is defined, developed and argued to be critical in orchestrating innovation networks Distribution of the developed roles over the greater (than initially suggested by the literature) variety of phases of innovation network journeys highlighting situated and dynamic nature of innovation network orchestration
4. <i>What is the role of innovation network practices for network members' mirroring innovation?</i>	Between company and network practices: mirroring network ideas	The role of business network innovation in organizational practices of network members	Development of the network perspective on the spread and implementation of business network innovation in practices of network members	<ol style="list-style-type: none"> Development of a new theoretical framework to analyse the role of network innovation for the practices of network members on the early phase of network formation, i.e. mirroring Exploration of the framework in the analysis of two regional business networks Description of the joint process of network image formation and its enactment in the practices of network members Demonstration and analysis of the role of innovation network practices for the practices of network members as formative, directional, long-term and dynamic process

4.1 Summary and further discussion of the findings in the appended papers

4.1.1 *Main theoretical approaches to collaboration on innovation in tourism (Paper 1)*

This subsection presents and discusses the main findings of paper one by Høegh-Guldberg and Fuglsang (2016). The first research question was built on the argument that even though innovation theories have recognized openness and interactivity of the innovation process, collaborative innovation in tourism research has been less elaborated (Hjalager, 2010; Sundbo et al., 2007). Furthermore, theoretical approaches that have eventually been integrated by tourism research seem to be used without a clear-cut rationale: they appear to be unsystematically used in innovation studies and the chosen analytical units do not always seem to bear direct implications for innovation processes. Thus answering the first research question, the first conceptual article undergoes a review of different forms of collaborative innovation that have been or can be used in tourism research in an attempt to systematize them in a conceptual framework. Namely, the article reviews the following forms: dyadic relationships (Sautter & Leisen, 1999), communities of practice (Fuglsang & Eide, 2012), social network approach (Baggio et al., 2010), destination (Ness et al., 2014), innovation systems (Prats et al., 2008).

Theoretically, the article contributes to the open and interactive perspective on innovation in general (Chesbrough, 2003) and in the tourism context, in particular (Alsos et al., 2014) by sifting out the essence of each collaborative approach to innovation. Namely, the article defines the four following characteristics of each approach: ontology, i.e. different views of the object of knowledge and how this object exists in research; conceptualization, i.e. how ontology is observed and theoretically elaborated by the research; methodology, i.e. whether a predominantly qualitative or quantitative approach is used; and innovation, i.e. how the relation between innovation and collaboration is understood. These characteristics allowed the systemization of different theoretical approaches into the analytical multilevel framework of collaborative innovation in tourism, including the three main dimensions of collaborative density (with respective subcategories of strong, weak and diverse ties), durability (long, short, diverse) and place (place-specific, distanced, diverse). The different scale of collaboration in different approaches being organized from smaller to greater means that innovation potential for participating actors seems to generally increase, although not always so. The analytical dimensions indeed show that the more diverse ties, durability and situatedness of participating actors are, the higher the chance is to realize the innovation needs.

By deriving the logic in the development of different approaches to collaborative innovation, the analysis shows that although there is “a common understanding of the

necessity of opening up and interacting with one's environment to secure sustainable business development" (Høegh-Guldberg & Fuglsang, 2016), the approaches vary in the degree of appreciation of institutional embeddedness of businesses. Institutional embeddedness is understood as being "anchored in a larger structure" (Johannisson et al., 2002, p. 297) and as a systemic character of interactions with one's institutional environment (Høegh-Guldberg & Fuglsang, 2016). The importance of institutional embeddedness in the tourism industry can hardly be overemphasized since tourist experiences are often built around natural resources, publically owned venues, etc., which means that tourism firms need to take consideration of different interests beyond their own organizations, including those of the local community, municipality, county, destination and national marketing organizations, as well as other institutions that invest in the development of tourism industry. Therefore, to address the institutional embeddedness of a firm, the article suggests a new theoretical approach – the institutional environment approach – which is defined as the sixth approach to collaborative innovation and can also be applied in tourism research. Theoretically based on the premises of institutional theory supplemented by institutional entrepreneurship stream of research that focuses on the active change, i.e. how actors can change institutional arrangements, this approach "views the collaboration of tourism companies as active members of society (rather than just proximity-based collaboration), whereby negotiations set or alter the general course of economic action, settling conflicts and entering agreements" (Høegh-Guldberg & Fuglsang, 2016).

Further, systematization of the six approaches has not only theoretical but also methodological implications. Namely, the methodological implication of the framework is that it can serve as a tool or reference to assist further empirical research in choosing the most suitable approach for analyzing collaborative innovation. In other words, different approaches can be relevant, depending on characteristics of the researchable context described in the three dimensions of the framework: collaborative density, durability and place. Another interpretation of the importance of the framework can be that different collaborative forms can be more suitable at different stages of the innovation process.

4.1.2 Development of innovation networks over time (Paper 2)

This subsection presents and discusses the main findings of paper two by Høegh-Guldberg, Eide, Trengereid and Mathiesen Hjemdahl. The second research question examines the development of innovation networks over time and critical factors influencing their development by studying innovation network practices and results of collaboration between tourism industry, R&D and local and regional authorities. This research question was guided by the main argument that while the nature of innovation process is proven to be complex and iterative (Jernsand et al., 2015), the studies of innovation networks are either static or use linear and generic models of organizational change,

e.g. life-cycle model (Green et al., 2013) (for overview, see Van De Ven and Poole, 1995). Therefore, the main claim the paper makes is that seemingly similar innovation networks may follow both linear homogenous and diverse iterative developments, and exploration of the underlying factors for that needs to be explored. The research attention has been mainly focused on manufacturing and high-tech industries (Pittaway et al., 2004) where innovation processes are often described as designed, R&D based and realized in a top-down way (Engen, 2016). Thus, dynamics of innovation networks and their contextual characteristics in less-technological service and experience sectors that both represent tourism have received little research attention. This explains the choice of the authors of inquiring into innovation network practices in the tourism industry based on a large-scale qualitative study of seven regional innovation networks.

In order to bring in the emergent, incremental, messy nature of innovation processes, by which service and experience innovation are characterized, the second paper develops a new framework for studying the dynamics of innovation networks, which is a combination of the linear models and change factors characterizing them (Sundbo, 2010; Van De Ven & Poole, 1995) as well as process- (Pettigrew, 1997) and practice-based (Newell et al., 2009) approaches. Inspired by the work of Van De Ven et al. (1999) who discuss planned and emergent patterns of an innovation project realized within one or by several corporations, the intention of the study is to do so for multiple and dynamic network innovation in all its complexity. The framework of *innovation network journey* developed by the study adds up to the research on dynamics of innovation networks (Clegg et al., 2016; Green et al., 2013) by studying innovation networks' processes and practices framed in three main categories of phases, crossroads and critical factors.

Although phases and critical factors are also suggested by the linear models of organizational change (often referred to as stages and factors), both phases and factors that characterize the development of innovation networks in tourism are context dependent and, thus, demonstrate differences with research on network dynamics in other sectors of the economy (Isaksen, 2009). Further, the article develops 11 different types of phases in nine consecutive time periods that vary in sequence and duration for each network. While this broad variety of phases shows some similarities and a number of differences compared to previous research on network development over time (Green et al., 2013; Sundbo, 2010), the study as a whole demonstrates a more nuanced character of innovation network practices, which increases understanding of network change following not only planned but also emergent development patterns. Starting by bringing forth the heterogeneity of the networks' formation process, the study shows that the variety of phases across networks grows with time. Namely, from similar practices describing the first two phases of the development of all seven networks to similar practices describing two phases of the development of only two networks in the time periods six and

seven. The variety of network phases is related to multiplicity of network actors, activities and practices, internal and external critical factors, and not least industry-specific characteristics. In terms of industry-specific characteristics, an example is the relatively late maturation of triple-helix relationships (only in the fourth phase of network development after 3-4 years of networks' existence) because of little experience working with R&D partners or doing R&D by the industry. The more general differences in the development of innovation networks are demonstrated by less linear network development where similar innovation networks can both follow the similar sequence of phases but also skip/repeat a phase or develop into a phase characterized by processes that other networks have not been through. Here, the theoretical implication of the paper is in coupling the dynamic, less R&D based and at times chaotic nature of innovation in services and experiences (Sundbo et al., 2013) with dynamic development perspective in the network research more generally (Clegg et al., 2016).

When it comes to the critical factors that explain the differences across network developments, the paper develops four main factors: financing (getting approved/rejecting application for financing of innovation activities and network organization), management (lack of management, management turnover and failure/distrust), organizing (network (re)organizing model, subgroup division, merger, board membership, members' recruitment and exit), shared activities (courses, development projects, application writing, discussions, workshops, etc). Although three out of four factors, i.e. financing, management and organizing, have similarities with the factors identified in previous research (Green et al., 2013; Van De Ven et al., 1999), the study demonstrates how these factors influence context-dependent practices of tourism regional innovation networks. The fourth factor, shared activities, adds to the factors of change addressed by the organizational change theories by bringing forth the PPB stand and, thus, network practices (Newell et al., 2009; Wenger, 2000).

The article develops a new category of crossroad that explains differences in the pace and direction of an innovation network journeys of seemingly similar networks when a planned network development is facilitated or hampered by one or a combination of the critical factors of change. By discussing how the emergent development that interrupts the characteristic sequence of phases can be both positive (door-openers) and negative (setbacks), as well as having a varying degree of influence (major, medium and minor), the study adds up to an emergent and situated understanding of network dynamics (Eide & Fuglsang, 2013). The particular category of crossroads again highlights the complex, iterative and cyclic nature of innovation in tourism network practices and may have implications for other service and experience industries.

The article has also methodological implications that are built upon process- and practice-based lenses both in collecting the data and in representing the empirical fin-

dings using the model of Antonacopoulou (2008). The model is an extended version of the framework used in the processual research (Pettigrew, 1997), where content (what), outer and inner context (why) and process (how) are emphasized as the three main analytical categories. Antonacopoulou (2008, p. 118) adds the categories of practitioners, practice (what and how practitioners do) and purpose (why they do so).

4.1.3 Orchestration of innovation networks over time (Paper 3)

This subsection presents and discusses the main findings of paper three by Eide, Trengereid, Høegh-Guldberg and Mathiesen Hjemdahl. The third research question examines the nature of orchestration of innovation networks over time based on the same empirical data from seven innovation networks as in paper two, including representatives of tourism industry and R&D, as well as public bodies. Previous research describes the management of innovation networks as a specific phenomenon given the complexity, varying interests and cultures of network members, as well as the network's importance for the development of separate industries and regions (Landsperger et al., 2012). Provided that these characteristics are reflected in loose coupling and fragility of networks (Orton & Weick, 1990), complex, informal and position-based network management is further argued to be better described as orchestration (Dhanaraj & Parkhe, 2006). This sub-question was further guided by the main argument that while previous research recognizes the multifaceted nature of network orchestration in a form of specific roles (Dhanaraj & Parkhe, 2006), appreciation of its situatedness and dynamics is less pronounced.

Inspired by the roles suggested in the previous research (Dhanaraj & Parkhe, 2006; Nilsen & Gausdal, 2017) and more inductive data analysis, the third paper discusses four orchestration roles, i.e. relational, knowledge, innovation and network organization orchestration, in the context of tourism regional innovation networks. All four roles are identified by previous research (Batterink et al., 2010; Nilsen & Gausdal, 2017) with somewhat different categorization. While knowledge and innovation orchestration are distinguished as separate roles (Dhanaraj & Parkhe, 2006; Nilsen & Gausdal, 2017), relational orchestration and network organization orchestration are discussed as either orchestration sub-roles or respective tasks in previous research. In this paper, the network organization orchestration role embraces both strategic and operative orchestration. Additionally to the context-dependent nuancing of the subcategories and tasks describing separate orchestration roles, the more open coding of the empirical data allowed for the development of one additional role that was defined as crucial for succeeding with innovation network orchestration in tourism and given little attention by the previous studies, namely the HR-orchestration role. This role describes practices of network orchestrators directed at separate network members in relation to participation in (and/or implementation of the outcomes of) particular development and innovation projects, other network activities or their participation in the network more generally. This role

becomes increasingly important as a balancing function when expectations to deliver and share innovation results increases. Exploration and assignment of a separate role with respective sub-roles and exercised orchestration practices to the HR-orchestration, i.e. “see”/ “listen to”, map, understand and appreciate; engage; and supervise by helping single members in development issues and innovation in own organizations, is found to be context dependent. Namely, tourism innovation networks often include a large number of members; varying geographical proximity and network infrastructure; a large variation in the education level of tourism practitioners; and not least, the emerging, incremental, messy and often bottom-up nature of innovation processes in services and experiences that the tourism industry represents. These points altogether increase the complexity of network orchestration and require close work and follow-up of separate network members for an innovation network to succeed. Such complexity and plurality of network practices requires involvement of the broader number of network actors in its orchestration, which is also addressed in the paper.

Another contribution of this paper is that it shows how and why the identified five orchestrators’ roles are more important at particular periods of network development, co-existence and relationships between the roles. This contribution adds up to the dynamics of network orchestration over time by bringing forth the emergent nature of innovation network practices that characterizes the wider variety of phases undertaken by different networks due to less planned or unplanned challenges and opportunities, which addresses the limitations of the linear, homogenous and generic development models applied in the research literature (Nilsen & Gausdal, 2017). To summarize this contribution, the study suggests the following: *network organization orchestration* is most important in the phases of exploration and network establishment (the first two phases) and later when the network strategy is changed, instead of being important in all phases, as is shown in previous research (Nilsen & Gausdal, 2017). *Relational orchestration* is present in most phases as main or secondary role and is a premise for both network development and other orchestration roles, as knowledge and innovation orchestration. *Innovation orchestration* is important during network growth and sustainment (third and fourth phases) and often on the combined premises with knowledge orchestration. *Knowledge orchestration* is important in several phases but is not the main role in the first phase, as previous research shows (Nilsen & Gausdal, 2017). And finally, *HR-orchestration* becomes important during network growth and sustainment as well as in later phases. This nuanced understanding of the orchestration of innovation networks is crucial for the formal management of such networks in order to be prepared to tackle the emergent turns of network development and, thus, extract most value for the network members from such a form of collaboration. It is also important for the organizations that finance innovation programmes, such as Arena and NCE, to make them successful and sustainable in the long-run development of service and experience industries.

4.1.4 The role of innovation network practices for network members' innovation (Paper 4)

This subsection presents and discusses the main findings of paper four by Høegh-Guldberg (forthcoming). While the second and particularly the third papers (discussed above) open a discussion about the complexity of innovation networks given the co-existence and at times conflict between different practices of network members that need to be continuously handled, the last research question is focused on the firm perspective on multilevel network innovation. Namely, the research question examines the role of business network innovation for the practices of tourism companies that participate in such networks and is primarily addressed in article four and further developed in this chapter (4.2.2). Addressing the importance of better understanding of the dynamics of collaborative innovation over time, both previous research (Baggio & Cooper, 2010; Newell et al., 2009) and the first three papers in this thesis are mainly focused on the internal network processes and how business members can benefit from their membership in innovation networks rather than how innovation developed in networks is spread to and finds implementation in the member companies. To learn about the latter, one needs to focus on processes and activities that take place on different levels of network innovation, to which existing research pays limited attention (Ahuja et al., 2012; Powell et al., 2005). At the same time, given the purpose of such complex regional networks, i.e. to enhance the development and innovation in different industries regionally and as a result nationally, research on the role of tourism innovation networks in organizational practices of network members is important for both the potential and existing network members as well as network supporting organizations.

Therefore, by further pursuing the practice-based perspective on network innovation, which views networks as communities of practice (Newell et al., 2009), the article narrows down its focus from looking upon an innovation network as a combination of different practices to a more detailed study of the practices of several network members and how network innovation is being spread and enacted in them (i.e. the relationships between innovation network practices and organizational practices of network members). To address the process of spread of innovation from a network to network members, the article reviews different notions of the spread process, i.e. imitation (Kinnunen, 1996), diffusion (Rogers, 1983), adaption (Hartley, 2005), and translation (Callon, 1986). The theoretical review that the paper undergoes, finds only a limited application of the notion of translation to explain the network context. Informed by these different theoretical perspectives on the process of the spread of innovation and produced from the empirical data findings, the study demonstrates support for the two notions of translation and adaption where actors have an active role in adapting an innovation to a particular context. However, both translation and adaption perspectives fail to address how an innovation becomes integrated with ongoing practices of a member company.

In order to cover this knowledge gap and operationalize the practice-based perspective on multilevel network innovation, the study engages in a discussion of innovation network practices and organizational practices of the companies, each being constituted by a set of core elements of practice and connections between them (Pantzar & Shove, 2010; Schatzki, 2001). The article contributes to research on network innovation (Clegg et al., 2016; Newell et al., 2009) by highlighting how network innovation is actually implemented by network members: innovation in a practice-based perspective should be seen as “formative, directional, long-term and dynamic” process (Høegh-Guldberg, forthcoming) of recombination of the core elements of practice and connections between them due to “conservative and resistant to change” nature of practices (Brown & Duguid, 1991, p. 40). Thus, this paper suggests a frame for seizing tourism innovation that is produced and implemented in rather messy relational practices (Jørgensen, 2017) by seeing innovative network ideas supported by network resources and competences as self-formative and self-creative element in innovation of network members. This frame is discussed, with the help of Foucault’s mirror metaphor (Foucault & Miskowiec, 1986), as a mirroring process, where network innovation conceptualized as innovative network ideas is associated with an utopian state “that conjure[s] an image of future tourism practices in a specific destination where networking takes place” (Høegh-Guldberg, forthcoming). Having formed this utopian image in the network, companies find themselves in a heterotopian space where they can experiment with innovative network ideas by moving forth and back between the utopia of these ideas and real place practices, interpreted as ongoing practices of a company.

Thus, on a more aggregated level, the article contributed to the field of spread of innovation (Czarniawska-Joerges & Sevón, 2005; Hartley, 2005) by developing company-network perspective on the process of spread. It also contributes to the field of the dynamics of innovation networks (Clegg et al., 2016; Sørensen & Fuglsang, 2015) by developing the network member’s perspective, that is how a network member deals with innovative network ideas in own organizational practices as well as adding to the practice-based perspective on network innovation (Newell et al., 2009) and tourism (De Souza Bispo, 2016).

Methodologically, the paper contributes to empirical studies that are focused on several units of analysis and relationships between them (network and network member practices) (Nicolini, 2009; Nicolini et al., 2003) by showing how separate elements of network practices can be integrated into organizational practices of network members in the mirroring process. The need to focus on the practices of separate network members also explains the fewer companies in the two “theoretically sampled” networks (Eisenhardt and Graebner, 2007) chosen for the study compared to other papers, which are built on larger empirical datasets.

4.2 Innovation network practices: integrated theoretical model

The previous subsection (4.1) discussed the contributions of separate papers to the four research questions that decompose the problem statement of this thesis. The current subsection is meant to integrate these contributions to show how they address the main problem statement as well as to define the overall theoretical contribution of the thesis as a whole. In order to illustrate theoretical and (premises for) practical implications of this thesis, this subsection opens with a few empirical examples of innovation network practices from the INLAND and USUS cases⁴, which are then used throughout the subsection to highlight the importance of viewing network innovation through the prism of practices (Box 1 below).

Innovation: development of a unified administration system of volunteers

Project: Sport tourism project in one of four strategic network areas (for the period of 2013–2017), i.e. development of world-class sport tourism.

Start-end period: 2013–2016

Innovation: development of a toolbox for the companies focused on creating and developing food experiences

Project: Matboksen (Foodbox) aimed at developing good food experiences is one of the areas of implementing the network strategy, i.e. increasing repurchase by existing customers.

Start-end period: 2014–now

Box 1. Two examples of innovation practices from the INLAND (to the left) and USUS (to the right) cases

Short description: The first example is taken from the INLAND network, or more exactly the continuation of network processes in the frames of the Snowball project⁵ in 2010–2020. The particular example of innovation was developed in the frames of a sport tourism project that aimed at developing sport events and arrangements (often as a spinoff of organizing training camps) in four different types of sport (with four respective periods of the project): cross-country skiing, bicycling, alpine skiing and freeskiing. Thus, the project is targeted at different groups of companies and resulted in a number of different innovations. And while “the most important result would be increased awareness of the users’ needs, ...and increased cooperation between businesses, sending customers to each other” (the project leader and a company representative, INLAND⁶), a number of specific innovations have been developed. For example, “the project part with bicycling ... has made four businesses and two organizations work together on developing the bicycle product for active bikers in the Lillehammer-Hafjell-Sjuesjøen area. Then it is also the direct stuff like making new maps, making sign routes ... GPS

⁴ Since I collected and analyzed the data in these two networks, as also mentioned in the methods chapter.

⁵ See methods chapter for more details.

⁶ All the direct quotes are taken from one interview with the project leader, who is outsourced by the network from one of the companies represented in INLAND. A vivid example, where network and company practices overlap in one person’s practices, was therefore chosen.

and the digital levels... It has also made all the businesses working with this sport more aware of the needs of athletes and they have implemented specific things into their organizations ... like the simple thing that bikers need to know where to go and people meeting them need to have a clue. And it is not obvious really ... the upfront personnel are not always sport fanatics, you know". An example of a specific innovation that is mainly used to illustrate the need to shift the understanding of network innovation as practices is a unified volunteer system that is the development of an administration system of volunteers involved by the different network members in organizing their own events to be made available to all project members. Volunteers' work is crucial in the region where a number of sport events are organized regularly.

The second example is taken from the USUS network with more emphasis on the role of multifaceted network innovation for the practices of one company. The company's innovation was implemented in the frames of several network projects that were focused on improving customer relationship management (CRM), key performance indicators (KPI), implementation of digital marketing and a more specific focus on food experiences in the frames of the Foodbox project. The Foodbox project developed a toolbox for the companies working with food and food experiences shared in network workshops, courses and referring to activities beyond the network. It includes, for example, consulting and suggesting competences missing in a company working with food, connecting with important partners within or beyond the networks, reference to local food actors in Agder and other counties, etc.⁷

An example of network innovation implemented by the company (chosen to be the USUS example) can be implementation of the new skills when meeting and communicating with the customers by the seasonal front-line staff.

4.2.1 *Towards the dynamics of innovation network practices*

The main problem statement of the study is ***How can the development of innovation networks be understood from the practice-based perspective and how can network innovation be enacted in the practices of network members?*** First and foremost, the study contributes to the research area of open and interactive view on innovation (Chesbrough, 2003; Pittaway et al., 2004; Powell, Koput, Smith-Doerr, 1996), which is argued to become the most common, promising and sustainable way of innovating. This contribution is intertwined within a complex framework of innovation network practice, which, as mentioned earlier, is built in the intersection of network, innovation and practice theories. The research needs that this framework addresses as well as how and why it does so are summarized in the figure below and described in the text under the figure.

⁷ for more info, see <https://usus.no/samhandling/mat/>

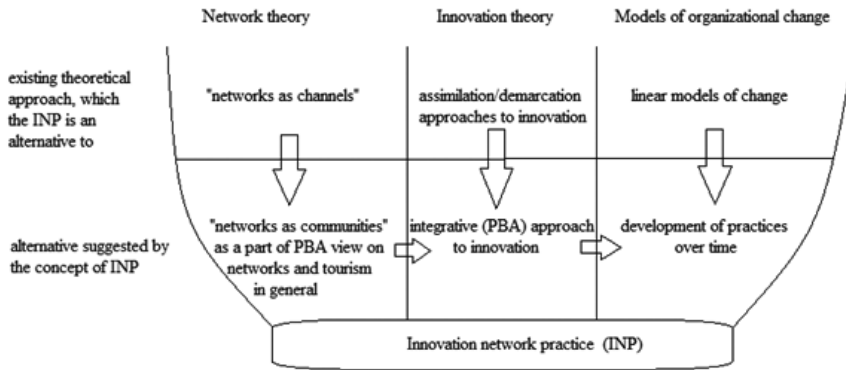


Figure 9. Dynamics of innovation network practices

Shift in the network theory. The INP framework contributes to the development of “networks as communities” perspective as an alternative to the dominating research tradition pursued in “networks as channels” perspective (Newell et al., 2009).

“And then ... many of us could use like supply deals... So it is a local firm on XX that is inventing this [volunteer administration system] for us”



“For sports events in Norway, the volunteer work is the basics. Without it, it would be impossible. If you want to hire people in the old way, you will get bankrupt just long before it [an event] started. The labor is too expensive...”

...something we have been working on now is a new volunteer administration system, online system... It is just running as a pilot yet, with two sport clubs... But it is meant to work on different levels both as an administrative tool for the management of the volunteers on the event but then also like management of memberships within the clubs... So it has different layers...”

Box 2. An example of different focus in studying development of a particular innovation in the INLAND case

More specifically, instead of viewing a network as a source of knowledge or other resources (as in Box 2 to the left), it is suggested to study innovation networks by focusing on their practices processually (as in Box 2 to the right), which denotes a different practice perspective on collaboration more generally and in tourism, in particular (De Souza Bispo, 2016). This way, understanding of innovation networks is not limited to being or providing access to different types of resources, but starts from the needs of a particular community of practitioners, what an innovation is a solution for, how, where

and when it will be applied and how this can remedy challenges of the current practices. This different perspective is needed to fill the gap that the more abstract dominating “network as channels” approach implies when describing the structures of how a successful network can be organized, what members such a network should include and how the relationships between these actors should be characterized. Instead, application of the version of the practice-based approach is suggested in order to learn what the *practices of network practitioners* are, and how and why these practices are shaped over time in a particular way. In other words, the focus is shifted from a more mechanic view that implies structures and their qualities to a more action view that implies activities and processes. By the means of the appended articles, this thesis represents a step-by-step work of, first, introducing the practice perspective (Newell et al., 2009) as an alternative approach to innovation network (Høegh-Guldberg & Fuglsang, 2016), then integrating it with other perspectives where network complexity and multiplicity (Jørgensen, 2017) is less pronounced (paper 2 and 3) and finally, suggesting the practice perspective as an independent research perspective that has the potential to address the complexity of innovation processes in inter-organizational networks (paper 4). And while this perspective may open the way for a more nuanced picture of what and how networks’ practitioners actually do to achieve their goals, it undoubtedly makes the research process more demanding in terms of longitudinal access to different units of analysis that constitute a network, as well as research methods related to it. Although every sector of the economy can be arguably laid out in “a set of organizing practices” (De Souza Bispo, 2016, p. 170), this thesis made the first step in doing so in the tourism industry and particularly regional innovation networks that have become increasingly important for the development of Norwegian tourism. The rest of this subchapter is, therefore, devoted to the main theoretical implications of the framework of “innovation network practices” as well as a summary of how tools available in the family of practice-based approaches can tackle the complexity of this perspective.

The INP framework accounts for *a different scope of shared practices* from several companies to shared practices in the frames of network projects, network as a whole or beyond network boundaries. It is important to note that the practices beyond innovation networks may influence innovation network practices through boundary spanning roles (Newell et al., 2009; Wenger, 2003) of a company, or other type of network members.

While the INLAND example in Box 3 discusses networking within and across traditional communities aimed at increasing the number of sport events in the Lillehammer region to achieve the network’s goals, the purposes of participating in other communities beyond the networks (as in the second quote in USUS example) varies from getting certain permission for running a business to participating in a theme community

“I was working with cross-country skiing and marathon, and that is kind of one network of businesses. And then the next summer, we finished the first step and transformed into bicycling...” (networking within and across different communities within one project).

“We have not done this [inviting external professionals for competence development] in this project, and it is a bit due to resources... But ... the NTG, the Sport Gymnasium (Norges Toppidrettsgymnas) ... have a lot of competence ... and then combined with the Olympia Toppen's resources ... They share their information and they, especially the Sport Gymnasium, are really dependent on Lillehammer being the center for winter sports...because they use the Olympic facilities, they use the mountain areas, and they use the resources” (networking beyond the traditional business community within the project).

Start-end period: 2014-now

“So now we have this food project... And the same thing is now evolving around culture and ... we also saw that ...we [the network] had so many businesses that are approaching the families, market the family segment, so now we are also forming a special programme for the USUS with kids or families with kids. And this will differ a little bit from year to year. ... The cluster has evolved in ...some networks within the cluster” (USUS management).

“We have a lot of networks: ... special for this area Arendal Næringsforening [where ‘the purpose is to promote business interests in Arendal and surrounding region to politicians’*]. And we are also a member of Aust-Agder Markedsforening [‘for all who works with sales and marketing’**] ... I am also on the board of Regional Foodculture Agder Telemark [***]... It is very important for us to be where things are happening and people do what they say they would like to do”.

translated from and see more on:

*<http://www.arendalnaeringsforening.no/>

**<http://www.markedsforbundet.no/>

***<https://www.culinary-heritage.com/region.asp?sprakid=6®ionid=69#.WpW3Y4WcGM9>

Box 3. Examples of different communities with overlapping practices within the network (INLAND example to the left) and beyond the network (USUS example to the right)

(e.g. local food, food culture and experiences). The participation in different communities in both examples is not always stable since tourism companies constantly reconsider their participation and its value due to limited organizational resources (see Box 4). Practices of different scope interrelated with each other describe two benefits of using the INP, i.e. universality and multiplicity. Universality means that the INP framework is suitable for studying different structural elements of the network. Multiplicity means that the framework allows the setting of the practices of these different communities in a broader picture in order to see how they contribute to network's goals and outcomes. Further, the INP framework accounts for *the em-*

“I wasn't sure [whether to join the network] because of the cost [membership fee]... So I had to discuss with my family... But then we understood that all the good people were there..., they are so good at sharing, they speak well about each other” [refer to each other when a customer e.g. asks for an advice]

Box 4. USUS example of considering network membership

beddedness of economic activity (Uzzi, 1996), i.e. being “anchored in a larger structure” (Johannisson et al., 2002, p. 297). In the practice-based perspective, organizational practices are also seen as a part of broader geographic, social, economic and institutional practices. As in the USUS example, the restaurant practices are dependent on political decisions and regulations or they are interdependent with the local farming and agriculture practices to make sure that they can indeed create a good meal experience. Such interrelatedness is not only crucial for sustaining the practices but also for improving the practices of each other when certain challenges are faced (e.g. food quality). However, while supporting the thesis that research needs to inquire into “the socio-economic context wherein firms are embedded” (Johannisson et al., 2002, p. 298), not least because it is a source of new knowledge or other resources important for organizational innovation (Burt, 2000; Granovetter, 1973), the practice-based perspective also brings new insight into the issue of embeddedness, which has been neglected by the research tradition “networks as channels” (Newell et al., 2009). Namely, the study argues that it is not only important to study organizational practices as being embedded in a network and broader socio-economic context, it is also important to study *organizational practices as constituting the broader textures of practices* (Høegh-Guldberg, forthcoming). As the data demonstrated, it is important, because while innovation network practices provide companies with an opportunity to experiment with organizational practices (e.g. in the frames of network projects), networks are limited in resources and such experiments are limited by the time span of a specific network project or other type of network activity (see Box 5). Further, it is namely the *companies that are supposed to routinize the new practices* in their organizations upon successful completion of a network project to make them durable. Methodologically, the study suggested using the zooming effect (Nicolini, 2009) to move between organizational and broader textures of practices wherein organizational practices are embedded.

“With my project that is just a small part of Snowball then ... it is always a challenge with the projects that are running as long as it is a project, but when the project stops, the implementation is at best partially, you know”.

Box 5. INLAND example of the limited capacity of a network project to implement innovation in a long run

While the empirical example of the tourism regional innovation networks is a vivid example of geographic (a part of a particular destination), social (a part of a local/regional community), and economic (a part of local/regional economy) embeddedness, an understanding of the *institutional embeddedness* may have more general theoretical implications for research on network innovation regardless of the research context. Instead of looking into how institutional processes change organizations (Dimaggio & Powell, 1983; Meyer & Rowan, 1977) or how separate actors can change the institutional settings (Fligstein, 1997; Maguire et al., 2004), the practice-based perspective may

suggest looking at institutional processes and practices as setting a stage or creating a laboratory where companies challenged by discrepant institutional practices experiment with new practices. In such network laboratories, companies get exposed to a new space – to experiment with new solutions to be integrated with the ongoing organizational practices – which they otherwise would not be exposed to due to being “locked” in the organizational communities. And while the embeddedness of organizational practices is important for innovation processes, it is not equally well addressed in different theoretical approaches on collaborative innovation (Høegh-Guldberg & Fuglsang, 2016).

Shift in the innovation theory. The importance of institutional embeddedness for innovation processes in networks and, as a result, in medium, small and micro tourism companies is, thus, hard to overemphasize. Among other things, the practice embeddedness more generally shows the boundaries between different types of practices, that is, how they interfere and where potential for innovation is high. The direct implication of this in the practice-based literature is expressed in innovation within and beyond the communities of practice with respectively growing innovation potential of such practices from more incremental to more radical (Newell et al., 2009; Wenger, 2000). Thus, *the multiplicity* that innovation

networks imply is in itself an arena where both formal and informal communities of practices are being formed within and across the more traditional business (can also be understood as “across” when several tourism subsectors or industries are involved in a network), research and public communities of practice. And while network participation on the earlier phases may appear more novel than with the development of common network practices, network collaboration over time may require involvement of

“We have been with them [the network] from 2012, and new members are always coming. So it’s a challenge for them [network leadership] to take care of us and the new ones because I would like to learn new things, I bother hearing about the old ones”

Box 6. USUS example of knowledge dynamics

of other type of stakeholders or intensified collaboration with the actors and communities beyond the networks (see Box 6). An example is the annual network conference where several networks may exchange their experiences and where representatives of academic and public communities are invited.

To study innovation networks as practices in this thesis was first suggested as a supplementing perspective to the theoretical framework operationalized by inquiring what, how, why, when, where and by whom is being done (Antonacopoulou, 2008; Pettigrew, 1987), and later developed into an independent practice-based framework. In the latter, the practice-based view of network innovation was conceptualized as a *dynamic re-combination of the core elements of practice*, i.e. resources, skills and image (inspired

by Pantzar and Shove, 2010), and relationships between them. This perspective does not only suggest an alternative view of the development of integrative innovation framework that covers different sectors of the economy (Gallouj, 2010; Vargo & Lusch, 2008), i.e. goods, services and experiences, it is also built on the

“I am a happy owner and a dreamer of this company. It’s a company from my husband ..., they [husband’s family] bought it in the late 1800. So there is lot of traditions in this place... We have all our children... working with us [daughter is doing CRM and helping with digital marketing] ... And we have our son XX who is the main chef... And we have also a sous chef, the happy sous chef, XX. And we have a lovely gardener, who takes care of the gardening ... So we are five people all time, and we have 15 young people working in the summertime, and some of them help us now. But we have this special thing that we know every person that gives us meat, fish, all we use in the restaurant. So just now we have eggs coming from XX, it is near Kristiansand. The farmer is coming with the eggs from happy hens. So we love to tell the story, we are a storyteller at all times”

Box 7. USUS example of an experience-based tourism

assumption of innovation processes being a collaborative endeavour, often addressed in innovation research as the Schumpeter III tradition (Fuglsang & Sundbo, 2003). Although the practice-based alternative of the integrative approach was primarily applied to study the practices of experience-based tourism (as in Box 7), this approach has the potential to be applied to study innovation in other sectors of the economy, since it was equally useful for understanding the practices of more traditional service-based tourism companies (e.g. transportation and accommodation) in the data. In spite of varying practices within the business communities, conceptualization of the practices as a combination of the core elements of practice as well as relationships between the practices of different communities can be done. And while the characteristics-based approach by Gallouj and Weinstein (1997) somewhat similarly decomposes goods and services into interrelated vectors of characteristics, which makes it possible to spot the origins and characteristics of a particular innovation process, the practice-based perspective goes further as it shows *how an innovation becomes integrated* with ongoing, resistant to change practices of an organization (Brown & Duguid, 1991).

Thus analytically, the INP framework in this thesis addresses two main types of practices: network practices, where an innovation originates, and organizational practices, where it is implemented, as well as relationships between the two. And while organizational practices and innovation have been discussed in the practice-based research (Brown & Duguid, 1991; Orr, 1996), we have less knowledge about innovation networks’ practices (Fuglsang & Eide, 2012; Newell et al., 2009) and especially relationships between the two (Høegh-Guldberg, forthcoming). An example of the development of the core elements of practice in the INLAND case is provided below.

Image: The sport tourism project is the main measure in one of the four focus areas, i.e. “Sport tourism in world class”, constituting the network’s vision “Europe’s most complete region for winter sports and experiences”. Sport tourism is divided into three levels developed in the frames of the project: i) training camps for national teams/clubs, ii) businesses/enthusiasts at the training camps, iii) youth camps during school holidays (Snowball action plan 2013-2017).

“...we have different challenges because the organizations are different and the events are different but still there is a lot in common.”

Resources: Project members are united by the common resources and advantages of the destination, i.e. Olympic games’ facilities, climate/seasonal weather conditions, training facilities, testlab, lodging facilities and proximity to Oslo and Gardermoen airport (Snowball action plan 2013-2017). Besides the “project is financed by public money”. And though public money carries only a “part of the costs”, it is important because “when you make events, it is always a challenge first to raise the money for building a concept [of a specific event]. It is always easier with the money afterwards, but you need the money upfront.”

Skills: Besides volunteer competences described above and trainer competences available in the destination, companies have their own sport tourism skills and competences. “Working with sport events, and sport tourism is something that comes from my heart. Sport has been really important in my life, I’ve been working or I’ve been an athlete...And then I’ve been working voluntarily in different sports clubs as a coach and different positions there”. “For the project, it is really important with the mix [of ideas] because I am the project leader, but still I do not believe that innovation could happen in a way that the leadership makes up all the good ideas and the others do it... In good leadership ... the leader should not make too much or try to implement too much of their own ideas, they should make the people make the ideas and implement them because then it is not forced. But still, having a flat structure and discussing things, you know, means that ideas could come from everywhere”.

Box 8. INLAND example of laying out the innovation network practice in a combination of the core elements of practice

Studying innovation network practices as a combination of the core elements of practice can, over time, show how separate elements of practice developed and why they took a particular form. However, it is argued in this thesis that the implementation of innovation network practices is indeed dependent on the relationship between network and organizational practices of network members. This way, the INP framework helps to shed light on the **formative, directional, long-term and dynamic nature of innovation process** (Høegh-Guldberg, forthcoming). And the more radical difference a new element(s) of network practice constitutes for the ongoing practices of a company, the more long-term and demanding the process of implementation of innovative network ideas is. However, the data demonstrated that there are companies that experience that the new elements of practice formed by the network community are so different from the organizational practices, that they do not have the capacity and understanding of how they can be integrated with the ongoing practices. Such companies often leave networks. The data shows that it can also be that the innovation network practices are not challenging enough for some of the network members and, as a result, they stop

prioritizing their membership in a particular innovation network or reconsider their membership in favour of other organizations.

Development of innovation networks over time and enactment of network innovation in the practices of network members. Finally, the development of the framework of innovation network practices has suggested a different and a more holistic view on the dynamics of innovation networks – a topic that continues to raise research interest (Clegg et al., 2013; Fuglsang et al., 2015) and has been the main focus in this thesis. The articulation of the dynamics of innovation networks inherent to the INP framework has also been developed progressively in the work on this thesis. In the second and third articles, where the starting point for studying network dynamics are organizational change approaches (e.g. Green et al., 2013; Van De Ven & Poole, 1995), the process- and practice-based perspectives (Antonacopoulou, 2008; Pettigrew, 1997) complement the framework. The organizational change approaches demonstrate that they can indeed equip one's research to study the planned processes of network development as well as factors defining a particular sequence of phases and characterizing the content of separate phases (Green et al., 2013; Sundbo, 2010). Further, the phase models are instructive for the financing bodies of innovation programmes (e.g. Arena or NCE) as they can demonstrate the relationships between the phases of network development and expected short-term and long-term innovation network results. In this regard, the phase models are also useful for the management of innovation networks as they provide an overview of the competences needed to orchestrate such networks. The use of the phase models in innovation network programmes such as Arena or NCE can be related to the assimilation of the generic innovation policies across different industries. Such policies are initially developed in manufacturing and high-tech industries and imply more linear, phase-patterned, designed innovation processes realized in a more top-down way and in close cooperation with R&D (Engen, 2016).

Already supplementing the phase models by the practice-based perspective in the study of innovation networks in tourism over time demonstrated immediate critique of the homogenous and generic linear models of change. The organizational change approaches alone failed to explain why similar innovation networks developed at a different pace or even took a different development path characterized by the uncommon phases of the development of innovation networks. In other words, the practice-based perspective complemented the understanding of the dynamics of innovation networks by the new insight about the ***emergent context-dependent practices of innovation networks***. The contribution that addresses some of the limitations of the linear models of network development was namely possible by going beyond the research on network development and change. Particularly, the framework brought the network and practice theories together with innovation theory, which by highlighting also the emergent characteris-

tics and embeddedness of innovation practices supported the findings of the previous research on innovation in services and experiences (Harkema, 2003; Jernsand et al., 2015). Among other things, this thesis demonstrates that innovation networks cannot start directly with innovation; instead, the development of innovation practices first requires exploration of the potential development areas, building of relationships between network members, identification of the knowledge gaps and learning required in the

“Innovation is often forced by need. You see that the events are growing and the management of the volunteers is challenging, there is a need for good communication and knowing that everyone is able to do what they are set to do... There are different such [volunteer] systems up and running, one was made for the World Championship in Oslo ... and the Youth Olympics... But we are getting one that is made for us and it is tailor-fitted to our needs...”

Box 9. INLAND example of the characteristics of network innovation

strategic network areas. The innovation network practice framework demonstrates that innovation processes and activities performed by an innovation network community

“We are a family company; we also have a lot of problems... So we told them [network and project leaders] what our problem was and they help us. And we work with that now. It is necessary, we could have been split as a family and also as a company...”

Box 10. USUS example of bottom-up innovation

are indeed non-linear, iterative and at times cyclic endeavour (paper 2). Thus, the nature of innovation practices emphasizes the emergent and incremental characteristics of an innovation process often organized bottom-up, in more chaotic and hidden ways (Engen, 2016). The INLAND example demonstrates that the volunteer system they are working on is indeed not radically new to the market; its prototypes can be found elsewhere (see Box 9). It is developed in a bottom-up way to solve the challenges of the ongoing practices of the companies, in a way similar to the USUS example (see Box 10).

The practice-based perspective on innovation networks is more advantageous than the linear models of change alone as it can, *in a more focused way*, address the innovation processes that take place in a particular period of network development to unpack the messy nature of innovation processes. The focused view is important because of, among other things (e.g. the nature of innovation output), unforeseen network developments, where SMEs constantly weight costs and benefits of network participation due to limited organizational resources. This may influence the continuance of participation of network members as well as overall network stability.

Further, the practice-based perspective on innovation networks does not concede

even to a combination of the linear models of change given that practice approaches constitute a family of research strategies (Nicolini & Monteiro, 2017) or their combination, as suggested in the current study. Namely, the thesis suggests integrating genealogical, configurational and dialectical research strategies (Nicolini & Monteiro, 2017) into one model to address the *dynamics, embeddedness and interference of innovation network practices*, respectively. A genealogical research strategy can serve as an alternative to the life-cycle and evolutionary theories of organizational change, while a dialectical research strategy can be an alternative to the dialectical theory. Therefore, the study eventually suggests using the practice-based perspective as it is more independent than other theoretical approaches to dynamics of innovation networks research framework. The INP framework's implications for analyzing the network dynamics include studying how the elements of innovation network practices are being formed and combined and how the novel elements of practice are being used by the companies to change their organizational practices. Projecting the innovation processes onto the core elements of practice, one of the central implications of the INP, indeed shows that these elements can be *enacted in different ways* in the practices of network members, as will be described below.

The main points of the shift towards the framework of innovation network practice are summed up in the figure below.

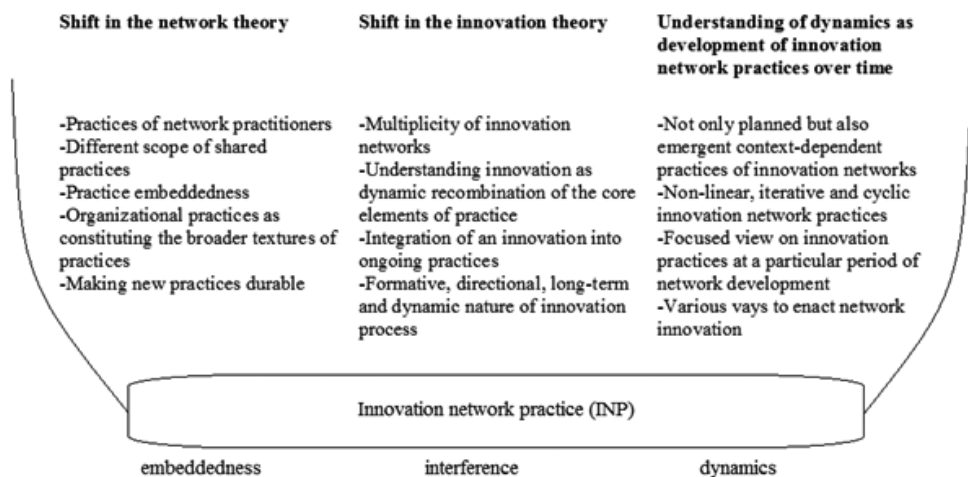


Figure 10. Main implications of the innovation network practice framework

Such a shift from the existing approach to the alternative suggested by the innovation network practice framework can be found fairly challenging by the researchers because of its complexity and the additional requirements that the INP poses. The complexity

and requirements are not only expressed in a longitudinal access to a particular unit of analysis as in the existing approach, but the practices of several units and the links between them that require a combination of research methods in order to be able to form an understanding of these practices and their development. In spite of the complexity of accumulating and analysing the data according to the INP perspective and the difficulties in reporting and explaining the data, a more nuanced and accurate understanding of a particular type of practice can be developed. Such understanding help to shed light on the challenges in transition between different types of practices and thus, the practical implications (that will be addressed below) can equip the current or potential network members, management of innovation networks as well as funding and other facilitating organizations representing innovation programmes.

4.2.2 *Balanced innovation*

The implications of different practices and processes exercised in different temporal periods of network development show that the change in one or several elements of practice and their combinations vary across network life-span. For example, the formation of network image is crucial during the network establishment and reorganization, while financing, as one type of resource, is essential for making network establishment possible in the first place. However, what the dynamics of innovation network practices mean for organizational practices of network members has remained underdeveloped and, therefore, addressed in the fourth appended paper and further developed during work on this chapter.

Although network innovation has its declared benefits, the reality of practice is more challenging. This finding has other implications than the partial implementation of innovation network practices on the network level due, for example, to the limited project resources. The challenges also arise on the company level, where innovation network practice are meant to be integrated and made durable (see Box 11). I shall further highlight a model for analyzing how network innovation becomes

“People [network/project members] are telling their success story, and I can always learn something from them. But the difficulty is, of course, to do it, not just thinking about it but really do it”

Box 11. USUS example of difficulties in integrating new knowledge and innovation

implemented in the companies by ***relating organizational practices and innovation network practices***. And while maintaining network practices requires work from the companies' side, including engagement, active participation in network activities, devotion, involvement of a company's employees, etc., the dynamics of innovation network practices conceptualized as recombination of the core elements of practice point at additional implications. Namely, to gain from the innovation network practices – that is

to implement innovation network results in the organizational practices and to be able to benefit from them rather than just get access to network ideas, resources and competences – it is important to balance the core elements of organizational and network practices when combining them into a novel set of the elements of practice, as summarized in the figure below.

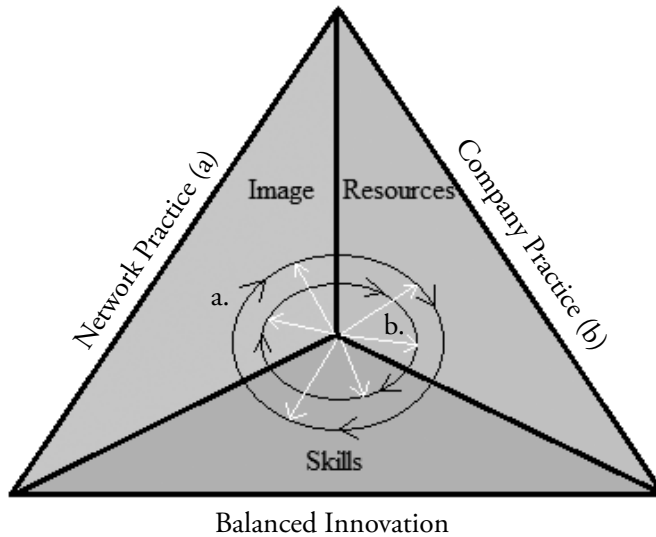


Figure 11. *Balancing organizational and innovation network practices*

The figure schematically shows that both practices are formed by two different combinations of elements. In order for the organizational practices to be organized in an efficient way and to utilize the network benefits, a network member needs to balance between partly sustaining the existing elements of organizational practice and partly introducing novel elements of innovation network practice. By focusing on how companies participated in the networks and what they considered being important for innovation network practices to be successfully implemented in the organizational practices in the long-run, three types of balancing were found. These three types of balancing are theoretically inspired by the core elements of practice, i.e. image, resources and skills (Pantzar & Shove, 2010), which were also identified in the empirical data with somewhat different notions. Thus, the image element of practice in the data appeared to be associated with strategic balancing, skills – with competence balancing, and resources – with resource balancing. The following implications have been drawn:

Strategic balancing. This type of balancing between the two types of practices is associated with the image element of practice in the sense that any practice is being guided by a particular image and the stronger relationship between the network and organiza-

tional images is, the more valuable company's participation in the network could be.

“When I started [working in the project], we had three small events running each year. In 2015, I had 16 events... For XX [the company], it means, some direct business, which includes people coming to stay at the hotels, eat at the restaurants, go to the spa... It means a lot indirectly, as really good PR, for showing off the place and giving people good experiences, and people talk to each other, it is very important with the social media. Then people come back, they buy their cabins there, or they come to spend their holidays there afterwards ... because there is a lot of stuff happening”.

Box 12. INLAND example of strategic balancing

The INLAND example (see Box 12) demonstrates that the development of sport tourism by organizing training camps in the frames of the network project becomes implemented in the supplementary company practices but increases their importance for the core company practices, i.e. lodging, alpine and cross-country skiing and services related to these sports. This may explain a relatively easy integration of the increasing number of the training camps in the practices of the company. In the USUS case below (Box 13), innovation network practices are, in contrast, applied in the core practices of the company, i.e. providing good food experiences.

“If you have a good experience in one place but you don't have a good experience when you go out of there, then people forget the good one. Because they just remember the bad one.” This is the network's belief and the main argument behind the strategy of increasing repurchase. “So it is all about doing our best and delivering the best every time. It [innovation network practices and their facilitation on the company level] was a life saver, because we were going complete out of direction... We would like to have local products in our restaurants because when the tourist is coming we must have good food and a good story [about the landscape, animal welfare, etc.] ...”

Box 13. USUS example of strategic balancing

However, mirroring the network image has been a demanding, long-term process that touched different sides of the company's practices by solving the critical challenges and further continuous improvement of the ongoing practices of the company. One of the central challenges was to divide business responsibilities between the members of the family working in the restaurant and to make sure that everyone had respective competences to do their jobs. And although, according to the company's owner, this tremendous work over more than four years resulted in that “people know my restaurant a lot, and that we deliver every time”, this work also continued at the moment of data collection. This work was demanding both in terms of missing competences as well as limited resources, as will be described below.

Both the INLAND and USUS examples resulted in successful implementation of

innovation network practices in the organizational practices of the companies, although less successful examples are also present in the data. For example, too much accumulated novelty led to changing a company's image, which resulted in a decreased number of tourists and financial losses respectively. Another example is that little connection between the network and a company's images resulted in low engagement and drop off. Here the context of experience-based tourism can be one of the reasons, because the image and the story behind a company and its experiences have value on their own.

According to the data, strategic balancing includes (but is not limited to) the following measures:

- Dare to participate in an innovation network, yet make sure that the image of innovation network practices does not damage (it is polar or there is a big gap) the core of the organizational practices. The very core idea of what a company is about, its authenticity and the story behind it need to be preserved as being essential to connect the past and the future of organizational practices and to be able to produce a good tourist experience;
- Both the CEO and employees in the companies should be involved in network activities in order to understand and translate the innovation network results into the company's practices. Usually, it is a balance of the CEO's participation in strategic/board/annual meetings to decide on the priorities and employees' participation in separate activities/workshops;
- Balance the short-term innovation results achieved upon implementation of innovation network practices with a long-term innovation plan. This may range from a single marketing campaign and how it fits with an image of company's practice to competence development activities and their consequences on long-term innovation results of the companies. This type of strategic balancing has direct implications for the next two categories, i.e. competence balancing and resources balancing.

Strategic balancing has implications for a company's behaviour and attitudes in the network because effective networking requires an active company role – not only expecting to gain from the network but also sharing their own ideas, resources and competences, thereby contributing to the shared network image. Thus, strategic company balancing adds up to the discussion of strategic network orchestration within network organization orchestration role discussed in this thesis (Nilsen & Gausdal, 2017) by zooming in one of the parts of management of multilevel innovation network practices, i.e. organizational practices of network members. Inspired by the theoretical perspective of the practice-based approach, strategic balancing is in line with the existing theoretical perspectives, such as “*strategy as practice*” (Hendry, 2000) and “*strategic reflexivity*” (Fuglsang & Sundbo, 2003), which agree that strategy should be seen as a continuous

process where actors have an active position of adjusting the strategic direction in order to be able to sustain their enterprise in the conditions of dynamic and complex business environments and to achieve desired outcomes. And while these two perspectives challenge the traditional top-down execution of the strategy of a firm, strategic balancing further contributes by suggesting measures to bridge the ongoing practices of the company and innovation developed in the context-dependent practices of innovation networks. Although innovation in the tourism industry has been gradually recognized (Hjalager, 2010; Sundbo et al., 2013), its incremental character is often blamed on the limited capacity of the tourism companies, as well as the character of the tourism product (which is respectively reflected in the tourism practices). While this study supports these findings by showing the challenges of the tourism SMEs in distributing their internal resource and competence capacities between the primary organizational and network practices, it also demonstrates novel insight. Namely, strategic balancing is not necessarily more important for the smaller (at times, family owned) companies with long-lasting traditions that bring forth the uniqueness of historical, cultural, geographical, gastronomic authenticity of a tourism experience, it might be as much or even more important for the bigger companies. While the bigger companies may have a higher capacity to accommodate change, they may also be carried by the novelty, giving less attention to the very core of their business, which may lead to negative consequences in running the business, e.g. losing customers. At the same time, some smaller companies, whose participation might be impeded by their limited capacity and mismatch of the company strategy with the strategy of a network (e.g. while networks often aim at increasing the number of tourists, separate companies may not pursue the similar goal) may instead succeed in strategic balancing by finding their own network niche in informal network communities. This way, a network becomes both a “window into a bigger world”, where innovation is crucial, and a safe buffer for the organizational practices of tourism SMEs from the fast-changing external environment. This, among other things, may explain why smaller companies seem to succeed in bridging their own and network practice by finding additional capacity (resources and competences, which in more detail is addressed below) in the networks to improve organizational practices.

Competence balancing. While it is important to balance internal competencies of a company with the competencies and skills acquired from the network, it is also important to remember that there is a broader range of competencies and skills beyond the network boundaries that network gives access to, that would otherwise not be accessible, especially for the smaller tourism companies.

The INLAND example (Box 14) shows how different competences are found and brought into the company practices by being the network and project member. It also shows that the choice of competences is steered by the company, although can be co-cre-

“At XX [the company], I am kind of one-man show, so implementation is easy. I made some statistics...I managed 12,000 volunteer work hours distributed on different events and also a little bit on infrastructure...Then working with events, of course, the Snowball network has been really helpful for me...Through the project and through the kind of organization, I get insight on these things done elsewhere and then I get to meet the right people...because my job is all about network”

Box 14. INLAND example of competence balancing

ated in the network practices. Thus, a change in the company practices required inspiration and competences for organizing other sport tourism events than those already run by the company, marketing of new events and collaboration with other project members on doing joint events.

“We asked for help to fix it [a problem in the company]. XX [the network’s orchestrator] brought us in contact with XX [external professional hired by the network]...And that is important because not everyone could help us...But he was the man for us...he gave us the tools...”

“USUS has so many things you can do, so I work with food, XX [the company’s employee] is doing the CRM. I am doing the KPI and the chef is meeting other chefs...I think USUS is so big and wide so everyone can have something to learn”.

Box 15. USUS example of competence balancing

The USUS example (Box 15) describes a wide range of competences both missing in the company to solve the critical challenges in the ongoing practices as well as desired competences to integrate network innovation practices. Both types of competences are acquired from the network either by inviting professionals into the company or by participating in the network activities. From the year 2012 until 2016, the company and each of its employees have been through a number of courses, and have done a tremendous job in order to develop their practices. The company has been working on its CRM, KPI, storytelling, hosting the guests, social media and marketing, development of the food experience by making sure of the good quality of food produced by the local farmers.

According to the data, competence balancing includes (but is not limited to) the following measures:

- Balance internal company competences with competences available in the network in innovation company processes. Often it is possible to get guidance from the formal hired network orchestrator (and/or orchestration team) or even outsource people working in the network for specific company projects. Involvement of network coordinators may also be needed to resolve more operative company challenges or discuss relevance/redundancy of network activities (es-

pecially when the network is growing and relevance of, for example, a particular competence-building activity can vary from company to company).

- Continuously discuss and, when relevant, implement new knowledge, competences and skills within the company. This measure is particularly relevant when only company leadership takes part in the network activities, as it may result in a situation where all knowledge and competences are held by one person. Failure to dynamically implement new competences may result in decreased engagement in network activities and, as a result, network drop off.
- Balance new knowledge acquired in the network when a company becomes a network member with novel information from outside the network (also that the network gives access to) especially in the later phases of network development. An example of the latter can be to use the annual network conference to build the network and get inspiration, since the innovation capacity of separate companies is expected to grow over time.

Competence balancing also has implications for network orchestration as it highlights the importance of balancing between the sustainment of already existing personal relations, as well as building new relations. It is particularly important in the Norwegian tourism context, where small communities mean that one person may often have several positions simultaneously as, for example, a leader in one company and a board member in another.

Competence balancing confined to the regional innovation network in tourism is largely constituted by the tacit knowledge dimension that companies have in common, which is essential for the formation of the network as a community. In this sense, the novelty that integration of network competences into the practice of network members can bring is limited by the “local buzz”, i.e. “information and communication ecology created by face-to-face contacts, co-presence and co-location of people and firms within the same industry and place or region” (Bathelt et al., 2004, p. 38). However, this appears to be beneficial for tourism companies and seems to hold mainly in the first years of network development. It is beneficial in a sense that for many tourism firms (especially in the previous decade) collaborative innovation has been relatively novel and, therefore, network facilitation of building these innovation communities in a respective pace is crucial. It is not less important for boundary interactions (Wenger, 2000) across the more traditional business, R&D and public communities, the interaction of which constitutes such regional innovation networks and at times remains challenging even in the contemporary innovation networks. This way, network members gradually open up the horizon of new competences and skills, often reaching beyond the network that (due to joint pool of network resources) gives access to broader “pipelines” (Bathelt et al., 2004), e.g. through engaging with national and international competence-build-

ding workshops, study-tours, conferences, etc. The dynamics of competence balancing, thus, adds up to the mainstream static view of network as a resource, where “strong” and “weak” ties (Burt, 2000; Granovetter, 1973b) are suggested to be accessed in order to address the innovation needs of the companies. This mainstream view seems less suitable to the context of tourism practices, although it is somewhat supported when it comes to balancing other than the human types of resources (as described below).

Resource balancing. Most of the resources, including time, money, facilities and equipment, that tourism companies have at their expense are often required for the internal organizational practices. But it is also important to find the capacity to give and take from the networks.

“You need to raise money from sponsors and that could be hard work and it is definitely a challenge. And it is also challenging when you are starting up something, then it is kind of challenging to get enough participants [of training camps, other sport arrangements] in the first season. But then if you make a good match, good event, then people talk and it grows...without putting too much money into marketing really.”

Box 16. INLAND example of resource balancing

INLAND example (Box 16) describes a challenge that is similar to that is faced on the network level in this type of practice, i.e. starting new events. The balancing is then reflected in either doing a project together with other project members or doing it by the company alone, but then the company needs to find additional sources of funding for its own events, with which the network can help. Although it was earlier argued that “implementation is easy” in the INLAND case, it is only so when all the necessary resources are brought together. The internal company’s limitations in terms of man-hours has consequences for both having and developing the competences in the company, but also as a limited resource for doing the events: “We are a big organization, I think we are like 200 people hired in the winter season...but I am the only one working with events and sports development...”.

“We have all these guests coming every day so our day is very long. It is hard to get everything done. Of course, that is one thing you have to deal with. We try...[because] it is important for us...I have to look forward all time and, and we have to look at new markets and new things to happen. So, of course, it is very important for us that USUS is dynamic...”

Box 17. USUS example of resource balancing

Integration of the network’s resources in the company’s practices is also described in the last USUS example (Box 15) by using the network resources to solve challenges in organizational practices. Besides, limited time and human resources limit the company’s

capacity to implement the new network knowledge, even though it is crucial for the company's ability to compete in the fast-changing environment (Box 17).

According to the data, competence balancing includes (but is not limited to) the following measures:

- Balance specific projects run by the company alone with network projects together with other companies. The data demonstrates that such a decision is made based on the company's goals for the project and whether it is possible to achieve them in a joint network project, as well as amount and variety of resources that are needed for the project's realization. There should also be a balance in the amount of resources each company brings into a project in relation to scope of their expectations from the project's results.
- Handle potential challenges of the outcomes of innovation practices. Here, the company implication is, first of all, in thinking about the network status as a resource, which can be associated with the community identity (Wenger, 2000). When a network develops an innovation that is significant for the development of the tourism industry in a destination, other tourism actors that are not members of the network may want to gain from it directly (by copying it) or indirectly (by increasing own prices for the tourists attracted by that innovation e.g. during specific events). In this case, the network can be a tool for negotiating conflicts.

This type of balancing is important as network members open their practices for other companies, often resulting in reduced competition. Another important implication that is specific for the tourism industry is that there are a number of resources, facilities and infrastructures within a destination that are essential for doing tourism business, yet which companies cannot influence by themselves. Therefore, given accumulated network resources (Novelli et al., 2006) and by addressing wider regional challenges, networks may help to handle the local challenges of its members limited in own resources. Resource balancing also addresses work with the destination-specific resources (Rantala et al., 2011) done by the tourism companies alone or together (packaging) in relation to the tourism product.

These different types of balancing suggest some of the measures of how tourism companies can balance the integration of the novel elements of practice in their organizational practices. This is important because the value of innovation

"People love to be there [in the network] and we know for being there, when we talk about things, things happen. And it is not just a discussion. It is how we are going to have it afterwards... being a part of our lives in the company"

Box 18. USUS

network practices for the companies is often measured by the concrete innovation and development of the organizational practices of network members (Box 18). As shown above, it has a number of theoretical implications. Practical implications of this thesis as a whole, its main theoretical concept of innovation network practice and their dynamics as well as balanced innovation are discussed below.

4.3 Practical implications

The study might be found useful by the public institutions that support the development of innovation networks and network management, as well as management of separate firms participating in innovation networks. As it has been argued before, network management is broader and more complex than the formal positions of the network leader and his/her team, and therefore, implications may have certain overlaps in the sense that implications for network management may be also useful for other types of network orchestrators, i.e. leaders of the companies. On a more general level, this study of the phenomena of innovation networks through the prism of their practices drew implications that pertained to what, how and why is being done in the development of these network overtime in order to facilitate cooperation, learning and innovation. This thesis confirms the importance of cooperation in service and experience industries, where formal programmes like Arena or NCE play a significant role in facilitating the establishment and development of collaboration on innovation in regional industry. It is given the image, resources and competences of innovation network practice, the development of which to a large extent is possible due to participation in the innovation programmes, which open up space for innovation and bridge resources and competences with the innovation needs of network members.

However, it seems that the assumptions that such innovation programmes' policies are built upon follow the more traditional research perspective where innovation processes are generic, and network development can be seen as a linear sequence of stages defined at the outset, leaving little space for the emergent network development. As a result, these policies produce homogenous models of network development and network management, where innovation can be quickly started and measured without much attention to the varying nature of innovation outcome, and where companies are, or at least become (upon the completion of such programmes), strong in resources and innovation. The simplicity of using such linear models may therefore explain practical resistance to the perspective of innovation network practices that presents alternative dynamic, complex and context-dependent perspective on innovation networks. However, the data shows that although this perspective implies a whole new way to look upon innovation network practices, the practitioners can and do use this perspective in their everyday practices and it can lead to successful innovation processes and outcomes.

While this perspective is integrative in the sense that it has potential to be applied to different sectors of economy, it implies good understanding of the practices of each and every industry where such innovation programmes are offered. This is undoubtedly challenging for a policy organization to have a wide spectrum of such practice-competences when they are distanced from business practices in their everyday activities. However, the data shows that it is crucial for all types of network orchestrators, including public facilitators, to have not only understanding of management, business processes, and relations between different types of organizations (public, R&D), but also the industry-specific knowledge and skills including conditions of sectors and business within them. Greater account of the contextual differences of industrial practices would bring forth not only the characteristics of the companies (micro and small tourism businesses) and business process (not necessarily work as a value chain), but also how the companies, both alone and together, work with innovation, understanding of the innovation outcome and what it means in relation to the ongoing practices of the companies and how that can potentially contribute to the regional development of the industry. The tourism context in this thesis allowed us to show that the development of innovation network practices does indeed take a long time, and that innovation cannot start until and unless the process of relationship and competence building has been successful.

However, the importance of knowing the practices of a particular industry are not only important for the representatives of the policy organizations to be able to facilitate them efficiently, it is also important for their management guidelines and innovation network managers' work. When a manager does not have a good understanding of the practices of the industry he/she is going to *orchestrate*, it may result in a wrong vision of network development and little or no outcome of innovation network practices for the companies. But if a manager has respective competence and a good understanding of the everyday practices of the companies, including knowledge of and relationships with the tourism companies regionally, it can, on the contrary, lead to his/her easier entrance and eventually good innovation projects and results. Belonging to a similar practice does not mean that knowledge is "a property that falls within its boundaries, but one that in part draws on its embeddedness in broader structures" (Brown & Duguid, 2001, p. 209). Thus, the relationships between the organizations allow "leaky" or transferable knowledge to freely move between different organizations. In other words, the practice perspective is not limited to a particular practice confined to its boundaries. On the contrary, people who share a practice get a lot of inspiration and input from within and beyond of that community of practice.

Orchestration, rather than management, of innovation networks is also important, as the innovation network practice perspective implies that the formal network manager cannot have so much control over network practices as previous research shows. Instead

of trying to control social, dynamic and embedded practices of innovation networks, a formal orchestrator should bring the network members together and support them, which denotes a more interactive approach between manager and network members. Thus, the practice perspective implies giving more initiative to the practitioners and facilitating bottom-up innovation process that, unlike forced ideas, can be successfully integrated with the practices of the companies. This is also because, as shown above, the process of integration of innovation network practices into organizational practices of network members is not always easy. It is, for example, not enough to attend network activities to be able to innovate in the company; it requires a lot of continuous work from the home organization. Besides, the implementation of innovation network practices in the member companies often requires that companies involve several of their employees (not only one network representative from a company) in network activities. This is needed in order to be able to transfer and translate network practices in a specific type of tourism sub-practice (e.g. food or nature-based experiences) in the home organization. This way network members need to invest in their participation in innovation network practices in order to succeed with implementation of innovation in their own organizations. At the same time, the contextual characteristics of the tourism industry illustrate often limited organizational resources of the tourism companies: limited time, financial resources, man-hours, respective skills and competences or ability to follow common trends in the development of tourism nationally and internationally. Therefore, balancing innovation network practices and ongoing organizational practices is essential for sustaining the business. The data demonstrates that not giving enough priority to the innovation network practices may lead to little or no effect of network participation.

More detailed practical implications of this thesis are presented below.

Policy implications

One important policy implication is related to *the varying length of the Arena programme* (from three to five years), which is often too short to get long- and sometimes even short-term innovation results, due to essential processes of relationship and competence building, especially in the first phases of network development. Besides, the completion of every funding period and respective *evaluation and reporting processes* take focus away from the primary network activities. And while this is not meant to discard the importance of evaluation and reporting, the study suggests that a more predictable programme duration with less burdening and time-consuming reporting periods within a particular time frame, e.g. five years, can make it easier for the network to focus on their primary activities. At the same time, network management must be made clearly aware of it in order to look at the gateway (of e.g. five years) as a point where the network should be able to stand on its own and become a more regular organization and a way to work in the region rather than a project. This would mean *early planning of*

the network future including the exit-strategy from the Arena Programme and potential sources of financing to secure the sustainment of the network activities on a more regular basis and beyond the Programme's length. While particularly the latter measure can be facilitated by the programme coordinators, it must undoubtedly be realized by the network's orchestration team.

The research findings point at similar implications for local and regional bodies that often (particularly important when a network has completed the Arena Programme) contribute to funding of some of the network activities and projects. Although the decision to finance network activities is taken within the limits of annual budget of a region or a city, *funding of the network activities* must be strategic and often over a longer period of time. Unexpected funding swings may have long-lasting consequences for a particular project and network as a whole since network members also invest their own internal resources and have respective expectations of the results of network activities.

The policy implications above demonstrate the importance of stability and clear-cut definition of the conditions of financial or other types of network support because of the challenges for the transition of innovation processes it may otherwise imply. Such stability is important in light of not always linear, often emerging, incremental, messy and relational innovation processes in tourism that can also be subject to instability due to the entrance/exit of network members, conflicting cultures of the different types of stakeholders, different interests and expectations to network activities and outcomes, etc. This description of innovation processes is, thus, more compatible with innovation in service and experience industries than generic policies developed in manufacturing and high-tech industries.

Network orchestration implications

As mentioned above, network orchestration implications are about *handling the dynamic processes of network development* during a particular temporal period – be it a more planned development along a phase or a more emergent turn leading to a cross-road – in order to successfully complete it in relation to the overall network's strategy and sustain the further development of the network. Article two discussed a number of more common phases of network development where the attention needs to be given to developing network initiative and securing funding, involving different groups of network stakeholders, developing relations between them and competence building, innovation processes as well as realization of the exit-strategy. Furthermore, besides the more planned processes expected in the frames of the Arena Programme, the study describes the *emergent processes*, which take place both within and beyond the programme time span, that managers need to be aware of. It is important, as the emergent processes may lead to both positive and negative developments (door-opener and setback types of crossroads) and, thus, may both facilitate innovation network practices or result in

an abrupt network completion. Namely, the study develops four types of critical factors that network managers need to be cautious about – financing, management, organizing and shared activities – in order to take advantage of them or avoid their potential negative consequences. Article three further suggests that five roles – *relational, knowledge, innovation, network organization and HR orchestration roles* – can be distinguished in the orchestration of tourism regional innovation networks. The study contributes by describing practices that different roles imply, how they dynamically change *along the network development over time* and address different network needs of e.g. building strategic course, relationships, joint learning and innovation processes. It is demonstrated how the roles co-exist (e.g. usually network organization orchestration is closely related to relational orchestration), relate (e.g. knowledge orchestration is a premise for innovation orchestration) and how the combinations of different roles may change with time in similar type of phases (when they repeat in the life-span of the same network).

Firm management implications

Implications for the management of tourism companies participating in regional innovation networks are mainly developed in paper four with several implications in the second, third papers and in the discussion of this chapter. In papers two and three, a general picture of what to expect from the development of regional innovation networks when becoming a member is given. Namely, the study describes when and how firms get tools and resources for the innovation processes, what proceeds network learning and how network innovation may develop at different periods of network life-span. It gives a general overview of the complexity and multilevel nature of network activities and actors involved. The study also highlights the important role of the companies in the transition of the network developments and innovation into their organizational practices alone or together with other companies, which often requires facilitation of network orchestrators.

The latter is mainly explored in the fourth article. The practical implications of the study are particularly in showing how companies may utilize the innovation potential of network practices in a specific period of network development by operationalizing the practices through the core elements of image, resources and skills (Shove & Pantzar, 2005). By choosing the period of network reorganization from a regional innovation network to a business network, the study demonstrates the importance of *facilitation of the bottom-up process of the formation of network image*, which has implications for the network orchestration team in terms of facilitation and for the company management in terms of engagement and active role. And since the process of formation of the image of network practices describes the desired state of future practices of a network, it embraces the innovation horizon that network members define for themselves. This further implies that active involvement of the company management in this process

may secure the engagement of network members in the long-run, as they will be able to *relate the future-oriented image of network practices with organizational practices*. The joint process of formation of the future-oriented image of network practices by the companies' leaders may impregnate the organizational practices with innovative ideas as well as how these ideas can be implemented in the organizational practices. Further, the study's implications for the companies' leaders are in the description of *the process of transition of innovation network ideas* to their home practices: from their development and alignment to implementation, facilitation and follow-up. Namely, the development of the future-oriented image of network practices upon a combination of network's and companies' resources and skills requires active involvement of a company's leadership as well as involvement of company's employees to foster the learning process and make it possible to align and implement innovative network ideas in the organizational practices on different company levels. Understanding of the network ideas and what they imply on different levels in a company is one of the important measures for lowering the resistance of company-specific routines and culture to novelty. Besides, having the networks as an arena where companies can experiment with new practices in the frames of, for example, network projects, allows for failures in implementing some of the innovative ideas due to the shared resources and skills involved in network practices.

To sum up the practical implications of the study, it brings forth multilevel practices of regional innovation networks within and across traditional business, R&D and public communities and, respectively, sheds light on the complex multilevel orchestration of these processes done by the formally hired professionals and other network members. A representative of a separate company may lead a separate network activity or be an informal leader of the network as a whole, and at the same time, he/she represents both the network and his/her own business interests. Therefore, the practical implications of innovation network practices represent a complex and interrelated picture where different types of stakeholders are involved in different network processes and activities and where their interests may match or collide. Therefore, it is important to see the process of the development of network practices over time from the perspectives of different types of network stakeholders.

4.4 Conclusion, limitation and further research

Looking on regional innovation networks in tourism through the prism of their complex and interrelated practices, this thesis sheds light on several aspects of the development of such networks over time and their role for network members. Step by step, this study first brings forth the practice perspective as an alternative strategy for studying collaborative innovation in tourism and issues of institutional embeddedness of tourism practices that have been given little attention by previous research. Then, the theoretical

perspective of practice-based approach adds up to understanding of the homogenous linear models of network change existing in the research by focusing on the genealogy of innovation network practices over time reflected in the framework of innovation network journey: its phases, crossroads and critical factors of change. The complexity and heterogeneity of the development of similar types of networks in light of their importance for the development of regional tourism industry called upon further consideration of how different temporal periods need to be orchestrated in order to result in innovation and developments. The innovation network journey further served as a nuanced matrix to be filled in by five context-dependent and distributed orchestration roles, discovery of their co-existence, relationships and being a premise for emergence of each other. And finally, the issues of innovation network practices' configurations and dialectics have been addressed by looking at how network innovation is being enacted (transferred and implemented) in the practices of network members in a particular temporal period of the development of innovation networks in the process of mirroring. These findings provide a more holistic picture of innovation network practices in tourism and suggest a number of measures of how network innovation can be enacted in the practices of network members through balanced innovation, i.e. strategic, competence and resource balancing.

The main limitation of the current research is that it has a limited focus and reflections on "the concerted accomplishment of practices within orderly scenes of actions" (Nicolini & Monteiro, 2017, p. 109) on the overall level of network practices, which is addressed by one of the most common situational approach of practice theories. This is related to methodological limitations of the study: participation in and observation of network activities were hindered by networks' dissolutions, limited accessibility to network events because of geographical distance and other resource limitations of current research (limited time, travel costs, importance to follow up network activities and a large number of separate network members over time). This implies a limited experience of "how practices are actually accomplished, extended in time, and reiterated through doings, saying, bodily skills, and the mediation of artefacts, objects, and spaces" (Nicolini & Monteiro, 2017, p. 109) in real time and place. Further research may address this limitation by focusing and following a particular type of network stakeholder and their practices. This can be done in frames of exploring other temporal periods of network development (than network reestablishment phase, as is done in the fourth article) and practices of different types of network stakeholders they imply: what does it mean more exactly for the policies of public supporting organizations, for R&D institutions and their interactions with the industry, and how can innovation network practices be used for the benefit of different tourism businesses? In addition, future research can go further the integration of innovation network practices in the organizational practices of network members by discussing how and why success or failure to imple-

ment network innovation in the companies influences the overall network and tourism development regionally. Such research could further contribute to the understanding of regional innovation as co-created and distributed. And finally, the findings of this thesis can be useful in the contexts of other industries, but this has to be further explored.

REFERENCES:

- Aarstad, J., Ness, H., & Haugland, S. A. (2015). Destination evolution and network dynamics: New research agendas. In D. Chambers & T. Rakic (Eds.), *Tourism Research Frontiers: Beyond the Boundaries of Knowledge* (pp. 141-164). UK: Emerald Group Publishing Limited.
- Ahuja, G., Soda, G., & Zaheer, A. (2012). The genesis and dynamics of organizational networks. *Organization Science*, 23(2), 434-448.
- Alsos, G. A., Eide, D., & Madsen, E. L. (2014). *Handbook of research on innovation in tourism industries*. Cheltenham: Edward Elgar Publishing.
- Alvesson, M., & Sköldbberg, K. (2000). *Reflexive methodology: New vistas for qualitative research*. London: Sage.
- Alvesson, M., & Sköldbberg, K. (2009). *Reflexive methodology: New vistas for qualitative research* (2 ed.). London: Sage.
- Anderson, J. C., & Narus, J. A. (1990). A model of distributor firm and manufacturer firm working partnerships. *The Journal of Marketing*, 54(1), 42-58.
- Antonacopoulou, E. P. (2008). On the practise of practice: In-tensions and ex-tensions in the ongoing reconfiguration of practices. In D. Barry & H. Hansen (Eds.), *The SAGE handbook of new approaches in management and organisation* (pp. 112-131). London: Sage.
- Asheim, B. T., & Isaksen, A. (2002). Regional innovation systems: the integration of local 'sticky' and global 'ubiquitous' knowledge. *The Journal of Technology Transfer*, 27(1), 77-86.
- Baggio, R., & Cooper, C. (2010). Knowledge transfer in a tourism destination: The effects of a network structure. *The Service Industries Journal*, 30(10), 1757-1771.
- Baggio, R., Scott, N., & Cooper, C. (2010). Network science: A review focused on tourism. *Annals of Tourism Research*, 37(3), 802-827.
- Bathelt, H., Malmberg, A., & Maskell, P. (2004). Clusters and knowledge: Local buzz, global pipelines and the process of knowledge creation. *Progress in Human Geography*, 28(1), 31-56.
- Batterink, M. H., Wubben, E. F., Klerkx, L., & Omta, S. (2010). Orchestrating innovation networks: The case of innovation brokers in the agri-food sector. *Entrepreneurship and Regional Development*, 22(1), 47-76.
- Berger, P., & Luckmann, T. (1966). The social construction of reality: A treatise in the sociology of knowledge. *New York: Anchor*.
- Bertella, G. (2012). *A study about knowledge and learning in small-scale tourism in rural and peripheral areas*. University of Tromsø, Faculty of Humanities, Social Science and Education, Department of Sociology, Political Science and Community Planning, Tromsø.

- Borgatti, S. P., & Foster, P. C. (2003). The network paradigm in organizational research: A review and typology. *Journal of Management*, 29(6), 991-1013.
- Borgatti, S. P., & Halgin, D. S. (2011). On network theory. *Organization Science*, 22(5), 1168-1181.
- Boswijk, A., Peelen, E., Olthof, S., & Beddow, C. (2012). *Economy of experiences*. Amsterdam: European Centre for the Experience and Transformation Economy
- Bramwell, B., & Lane, B. (2000). Collaboration and partnerships in tourism planning. In B. Bramwell & B. Lane (Eds.), *Tourism collaboration and partnerships: Politics, practice and sustainability* (Vol. 2, pp. 1-19). UK, Clevedon: Channel View Publications.
- Brown, J. S., & Duguid, P. (1991). Organizational learning and communities-of-practice: Toward a unified view of working, learning, and innovation. *Organization Science*, 2(1), 40-57.
- Brown, J. S., & Duguid, P. (2001). Knowledge and organization: A social-practice perspective. *Organization Science*, 12(2), 198-213.
- Brown, S. J. (1998). Internet technology in support of the concept of “communities-of-practice”: The case of Xerox. *Accounting, Management and Information Technologies*, 8(4), 227-236.
- Buhalis, D. (2000). Marketing the competitive destination of the future. *Tourism Management*, 21(1), 97-116.
- Burt, R. (1992). *Structural holes: The social structure of competition*. Cambridge, MA: Harvard University Press.
- Burt, R. S. (2000). The network structure of social capital. *Research in Organizational Behavior*, 22, 345-423.
- Bærenholdt, J. O., & Haldrup, M. (2006). Mobile networks and place making in cultural tourism: Staging Viking ships and rock music in Roskilde. *European Urban and Regional Studies*, 13(3), 209-224.
- Callon, M. (1986). Some elements of a sociology of translation: Domestication of the scallops and the fishermen of St Brieuc Bay. In J. Law (Ed.), *Power, action and belief: A new sociology of knowledge?* (pp. 196-223). London: Routledge.
- Chakravarthy, B. S., & Lorange, P. (1991). Adapting strategic planning to the changing needs of a business. *Journal of Organizational Change Management*, 4(2), 6-18.
- Chell, E. (2014). The critical incident technique: Philosophical underpinnings, method and application to a case of small business failure. In E. Chell & M Karataş-Özkan (Eds.), *Handbook of Research on Small Business and Entrepreneurship* (pp. 106-129). Cheltenham: Edward Elgar.
- Chell, E., & Pittaway, L. (1998). A study of entrepreneurship in the restaurant and café industry: Exploratory work using the critical incident technique as a methodology. *International Journal of Hospitality Management*, 17(1), 23-32.

- Chesbrough, H. W. (2003). *Open Innovation*. Boston, MA: Harvard Business School Press.
- Cho, J., & Trent, A. (2006). Validity in qualitative research revisited. *Qualitative research, 6*(3), 319-340.
- Chou, H.-H., & Zolkiewski, J. (2012). Decoding network dynamics. *Industrial marketing management, 41*(2), 247-258.
- Clark, L. (2011). Seeing the social capital in agricultural innovation systems: Using SNA to visualise bonding and bridging ties in rural communities. *Knowledge Management for Development Journal, 6*(3), 206-218.
- Clausen, T. H., & Madsen, E. L. (2014). Innovations, their knowledge sources and their effects in experience-base tourism. In G. Alsos, D. Eide, & E. Madsen (Eds.), *Handbook of research on innovation in tourism industries* (pp. 113-131). Cheltenham: Edward Elgar, 2014.
- Clegg, S., Josserand, E., Mehra, A., & Pitsis, T. (2013). Call for Papers, Special Issue on: "The transformative and innovative power of network dynamics". *Organization Studies*. Retrieved from <http://oss.sagepub.com/content/34/5-6/864.full>
- Clegg, S., Josserand, E., Mehra, A., & Pitsis, T. S. (2016). The transformative power of network dynamics: A research agenda. *Organization Studies, 37*(3), 277-291.
- Cohen, E., & Cohen, S. A. (2012). Current sociological theories and issues in tourism. *Annals of Tourism Research, 39*(4), 2177-2202.
- Coombs, R., & Miles, I. (2000). Innovation, measurement and services: The new problematique. In J. S. Metcalfe & I. Miles (Eds.), *Innovation systems in the service economy* (pp. 85-103). Boston: Springer.
- Czarniawska-Joerges, B., & Sevón, G. (2005). *Global ideas: How ideas, objects and practices travel in a global economy* (Vol. 13). Copenhagen: Copenhagen Business School Press.
- Danermark, B., Ekstrom, M., & Jakobsen, L. (2001). *Explaining society: An introduction to critical realism in the social sciences*. London; New York: Routledge.
- de Souza Bispo, M. (2016). Tourism as practice. *Annals of Tourism Research, 61*, 170-179.
- de Souza Bispo, M., & Godoy, A. S. (2012). The learning process of the use of technologies as practice: An ethnomethodological approach in travel agencies. *Revista Brasileira de Pesquisa em Turismo, 6*(2), 160.
- Delanty, G., & Strydom, P. (2003). *Philosophies of social science: The classic and contemporary readings*. Maidenhead, Philadelphia: Open University Press
- Dhanasaj, C., & Parkhe, A. (2006). Orchestrating innovation networks. *The Academy of Management Review, 31*(3), 659-669.

- DiMaggio, P., & Powell, W. W. (1983). The iron cage revisited: Collective rationality and institutional isomorphism in organizational fields. *American Sociological Review*, 48(2), 147-160.
- Djellal, F., Gallouj, F., & Miles, I. (2013). Two decades of research on innovation in services: Which place for public services? *Structural Change and Economic Dynamics*, 27, 98-117.
- Djellal, F., & Gallouj, F.Z. (2013). How public-private innovation networks in services (ServPPINs) differ from other innovation networks: What lessons for theory? In F. Z. Gallouj, L. Rubalcaba, & P. Windrum (Eds.), *Public-private innovation networks in services* (pp. 21-58). Cheltenham: Edward Elgar Pub. Ltd.
- Dooley, L., & O'Sullivan, D. (2007). Managing within distributed innovation networks. *International Journal of Innovation Management*, 11(03), 397-416.
- Doz, Y. L., Olk, P. M., & Ring, P. S. (2000). Formation processes of R&D consortia: Which path to take? Where does it lead? *Strategic Management Journal*, 21(3), 239-266.
- Dredge, D. (2006). Policy networks and the local organisation of tourism. *Tourism Management*, 27(2), 269-280.
- Easterby-Smith, M., Thorpe, R., Jackson, P., & Lowe, A. (2008). *Management Research*. London: SAGE Publications Limited.
- Easton, G. (2010). Critical realism in case study research. *Industrial Marketing Management*, 39(1), 118-128.
- Echeverri, P., & Skålén, P. (2011). Co-creation and co-destruction: A practice-theory based study of interactive value formation. *Marketing Theory*, 11(3), 351-373.
- Edensor, T. (2001). Performing tourism, staging tourism: (Re) producing tourist space and practice. *Tourist Studies*, 1(1), 59-81.
- Edquist, C. (1997). *Systems of innovation: Technologies, institutions, and organizations*. London: Pinter
- Edvardsson, B., Tronvoll, B., & Gruber, T. (2011). Expanding understanding of service exchange and value co-creation: a social construction approach. *Journal of the Academy of Marketing Science*, 39(2), 327-339.
- Eide, D. (2007). *Knowing and learning in-practice in service work: A relational and collective accomplishment*. (Doctoral dissertation). University of Tromsø: Faculty of Social Sciences
- Eide, D., & Fuglsang, L. (2013). Networking in the experience economy: Scaffolded networks between designed and emerging regional development. In J. Sundbo & F. Sørensen (Eds.), *Handbook on the experience economy* (pp. 287-309). Cheltenham: Edward Elgar Publishing.
- Eide, D., & Mossberg, L. (2013). Towards more intertwined innovation types: Innovation through experience design focusing on customer interactions. In J. Sundbo

- & F. Sørensen (Eds.), *Handbook on the Experience Economy* (pp. 248-268). Cheltenham: Edward Elgar Publishing.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532-550.
- Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1), 25-32.
- Ely, M., Vinz, R., Downing, M., & Anzul, M. (1997). *On writing qualitative research: Living by words*. London: The Falmer Press.
- Engen, M. (2016). *Frontline employees as participants in service innovation processes: Innovation by weaving* (Doctoral dissertation). Lillehammer University College, Lillehammer.
- Fagerberg, J. (2006). Innovation: A Guide to the Literature. In J. Fagerberg, D. C. Mowery, & R.R. Nelson (Eds), *The Oxford handbook of innovation* (pp. 1-26). New York: Oxford University Press.
- Fallon, F. (2001). Conflict, power and tourism on Lombok. *Current Issues in Tourism*, 4(6), 481-502.
- Feldman, M. S., & Orlikowski, W. J. (2011). Theorizing practice and practicing theory. *Organization Science*, 22(5), 1240-1253.
- Fligstein, N. (1997). Social skill and institutional theory. *American Behavioral Scientist*, 40(4), 397-405.
- Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, 12(2), 219-245.
- Fonseca, J. (2002). *Complexity and innovation in organizations*. London: Routledge.
- Foucault, M., & Miskowiec, J. (1986). Of other spaces. *Diacritics*, 16(1), 22-27.
- Framke, W. (2002). The destination as a concept: A discussion of the business-related perspective versus the socio-cultural approach in tourism theory. *Scandinavian Journal of Hospitality and Tourism*, 2(2), 92-108.
- Fuchs, S. (2001). *Against essentialism: A theory of society and culture*. Cambridge, MA: Harvard University Press.
- Fuglsang, L. (2008). Innovation with care: What it means. In L. Fuglsang (Ed.), *Innovation and the creative process: Towards innovation with care* (pp. 3-21). Cheltenham: Edward Elgar.
- Fuglsang, L. (2010). Bricolage and invisible innovation in public service innovation. *Journal of Innovation Economics & Management* 1(5), 67-87.
- Fuglsang, L. (2017). The critical incident technique and everyday innovation. In F. Sørensen & F. Lapenta (Eds.), *Service innovation research methods* (40-59). Cheltenham: Edward Elgar.

- Fuglsang, L., & Eide, D. (2012). The experience turn as 'bandwagon': Understanding network formation and innovation as practice. *European Urban and Regional Studies*, 20(4), 417-434.
- Fuglsang, L., Ness, H., & Eide, D. (2015). Call for paper abstracts -Special issue on the dynamics of networks, networking and innovation in the tourism industry. *Scandinavian Journal of Hospitality and Tourism*. Retrieved from <http://www.opplevelserinord.no/getfile.php/136034/Bilder/Artikkelbilder/Call%20for%20paper%20-%20Innovation%20networks%20in%20tourism-final.pdf>
- Fuglsang, L., Olsen, P. B., & Rasborg, K. (2013). Introduktion. In L. Fuglsang, P. B. Olsen, & K. Rasborg (Eds.), *Videnskabsteori i samfundsvidenskabene: på tvers ad fagkulturer og paradigmer* (3 ed., pp. 11-52). Frederiksberg: Samfundslitteratur.
- Fuglsang, L., & Sundbo, J. (2003). *Innovation as strategic reflexivity*. London: Routledge.
- Fuglsang, L., Sundbo, J., & Sørensen, F. (2011). Dynamics of experience service innovation: Innovation as a guided activity—results from a Danish survey. *The Service Industries Journal*, 31(5), 661-677.
- Gallouj, F. (2010). Services innovation: Assimilation, differentiation, inversion and integration. In H. Bidgoli (Ed.), *The Handbook of technology management* (pp. 989-1000). Hoboken, N.J: John Wiley and Sons.
- Gallouj, F., & Savona, M. (2009). Innovation in services: A review of the debate and a research agenda. *Journal of Evolutionary Economics*, 19(2), 149.
- Gallouj, F., & Weinstein, O. (1997). Innovation in services. *Research Policy*, 26(4), 537-556.
- Geiger, D. (2009). Revisiting the concept of practice: Toward an argumentative understanding of practicing. *Management Learning*, 40(2), 129-144.
- Gherardi, S. (2012). *How to conduct a practice-based study: Problems and methods*. Cheltenham: Edward Elgar Publishing.
- Gherardi, S., & Geiger, D. (2009). Revisiting the concept of practice: Toward an argumentative understanding of practicing. *Management Learning*, 40(2), 129-144.
- Godin, B. (2006). The linear model of innovation: The historical construction of an analytical framework. *Science, Technology, & Human Values*, 31(6), 639-667.
- Granovetter, M. S. (1973). The strength of weak ties. *American Journal of Sociology*, 78(6), 1360-1380.
- Green, L., Pyka, A., & Schön, B. (2013). A life cycle-based taxonomy of innovation networks - with a focus on public-private collaboration. In F. Gallouj, L. Rubalcaba, & P. Windrum (Eds.), *Public-private innovation networks in services* (pp. 113-135). Cheltenham: Edward Elgar Pub. Ltd.
- Grönroos, C. (2011). Value co-creation in service logic: A critical analysis. *Marketing Theory*, 11(3), 279-301.

- Guba, E. G., & Lincoln, Y. S. (1982). Epistemological and methodological bases of naturalistic inquiry. *Educational Communication and Technology*, 30(4), 233-252.
- Halinen, A., & Törnroos, J.-Å. (2005). Using case methods in the study of contemporary business networks. *Journal of Business Research*, 58(9), 1285-1297.
- Halkier, H. (2014). Innovation and destination governance in Denmark: Tourism, policy networks and spatial development. *European Planning Studies*, 22(8), 1659-1670.
- Hall, C. M. (1999). Rethinking collaboration and partnership: A public policy perspective. *Journal of Sustainable Tourism*, 7(3-4), 274-289.
- Hannan, M. T., & Freeman, J. (1977). The population ecology of organizations. *American journal of sociology*, 82(5), 929-964.
- Hansen, A. H., & Mossberg, L. (2013). Consumer immersion: A key to extraordinary experiences. In J. Sundbo & F. Sørensen (Eds.), *Handbook on the experience economy* (pp. 209-227). Cheltenham: Edward Elgar Publishing.
- Harkema, S. (2003). A complex adaptive perspective on learning within innovation projects. *The Learning Organization*, 10(6), 340-346.
- Hartley, J. (2005). Innovation in governance and public services: Past and present. *Public Money and Management*, 25(1), 27-34.
- Haugland, S. A., Ness, H., Grønseth, B.-O., & Aarstad, J. (2011). Development of tourism destinations: An Integrated Multilevel Perspective. *Annals of Tourism Research*, 38(1), 268-290.
- Heemstra, H. H. (2015). *Practicing open innovation in experience-based tourism: The roles of knowledge, values and reflexivity* (Doctoral dissertation). Business School at University of Nordland, Bodø. (no. 57-2015).
- Heidenreich, S., Landsperger, J., & Spieth, P. (2016). Are innovation networks in need of a conductor? Examining the contribution of network managers in low and high complexity settings. *Long Range Planning*, 49(1), 55-71.
- Hendry, J. (2000). Strategic decision making, discourse, and strategy as social practice. *Journal of Management Studies*, 37(7), 955-978.
- Hill, T. P. (1977). On goods and services. *Review of Income and Wealth*, 23(4), 315-338.
- Hjalager, A.-M. (2000). Tourism destinations and the concept of industrial districts. *Tourism and Hospitality Research*, 2(3), 199-213.
- Hjalager, A.-M. (2010). A review of innovation research in tourism. *Tourism Management*, 31(1), 1-12.
- Hollingshead, A., & Poole, M. S. (2012). *Research methods for studying groups and teams: A guide to approaches, tools, and technologies*. New York; London: Routledge.

- Høegh-Guldberg, O., & Fuglsang, L. (2016). Innovasjonssamarbeid i reiselivsnæringen – en flernivåanalyse. In T. Arnesen, M. Lerfald, & E. Merok (Eds.), *Innovasjon i fragmenterte næringer* (pp. 21-49). Vallset: Oplandske Bokforlag.
- Høegh-Guldberg, O. (forthcoming). Between company and network practices: mirroring innovative ideas. *Scandinavian Journal of Hospitality and Tourism*, 18(3)
- Håkansson, H., & Ford, D. (2002). How should companies interact in business networks? *Journal of Business Research*, 55(2), 133-139.
- Håkansson, H., & Snehota, I. (2006). No business is an island: The network concept of business strategy. *Scandinavian Journal of Management*, 22(3), 256-270.
- Innovasjon Norge (2014). *Nøkkeltall for norsk turisme*. Oslo, Norway. Retrieved from: <http://www.innovasjonnorge.no/contentassets/ad75036d7d1141338d4c-cc200c162c32/nokkeltall-for-norsk-turisme-2014.pdf>
- Innovasjon Norge (2016). *Nøkkeltall for norsk turisme*. Oslo, Norway. Retrieved from: <http://www.innovasjonnorge.no/contentassets/0d32e-3231c0a4367a96838ee3bb5b294/nokkeltall-for-norsk-turisme-2016.pdf>
- Isaksen, A. (2009). Innovation dynamics of global competitive regional clusters: The case of the Norwegian centres of expertise. *Regional Studies*, 43(9), 1155-1166.
- Jakobsen, E. W., & Røtnes, R. (2012). Cluster programs in Norway – evaluation of the NCE and Arena programs. *Menon Business Economics*. Retrieved from: <https://www.menon.no/wp-content/uploads/19clusters-programs-in-draft-final-report-jan-12-2.pdf>
- Jakobsen, S.-E., Onsager, K., Rokkan, A. I., & Nesheim, T. (2007). Midtveisevaluering av Arena-programmet (SNF Rapport nr. 01/07). Bergen, Norway. Retrieved from: https://www.researchgate.net/publication/242465864_Midtveisevaluering_av_Arena-programmet
- James, L., & Halkier, H. (2016). Regional development platforms and related variety: Exploring the changing practices of food tourism in North Jutland, Denmark. *European Urban and Regional Studies*, 23(4), 831-847.
- Jensen, Ø., & Kornellussen, T. (2002). Discriminating perceptions of a peripheral 'Nordic destination' among European tourists. *Tourism and Hospitality Research*, 3(4), 319-330.
- Jernsand, E. M., Kraff, H., & Mossberg, L. (2015). Tourism experience innovation through design. *Scandinavian Journal of Hospitality and Tourism*, 15(sup1), 98-119.
- Johannisson, B., Ramírez-Pasillas, M., & Karlsson, G. (2002). The institutional embeddedness of local inter-firm networks: A leverage for business creation. *Entrepreneurship & Regional Development*, 14(4), 297-315.
- Jørgensen, M. T. (2017). Reframing tourism distribution-Activity Theory and Actor-Network Theory. *Tourism Management*, 62, 312-321.

- Kim, B. (2001). Social constructivism. *Emerging perspectives on learning, teaching, and technology*, 1(1), 16.
- Kinnunen, J. (1996). Gabriel Tarde as a founding father of innovation diffusion research. *Acta Sociologica*, 39(4), 431-442.
- Kuhn, T. S. (1962). *The structure of scientific revolutions*. Chicago: University of Chicago Press.
- Kvale, S. E. (1989). *Issues of validity in qualitative research*. Lund: Studentlitteratur.
- Landsperger, J., Spieth, P., & Heidenreich, S. (2012). How network managers contribute to innovation network performance. *International Journal of Innovation Management*, 16(06), 1-21.
- Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management Review*, 24(4), 691-710.
- Langley, A. (2007). Process thinking in strategic organization. *Strategic Organization*, 5(3), 271-282.
- Langley, A., 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.
- Lave, J. (1988). *Cognition in practice: Mind, mathematics and culture in everyday life*. New York: Cambridge University Press.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Laverty, S. M. (2003). Hermeneutic phenomenology and phenomenology: A comparison of historical and methodological considerations. *International Journal of Qualitative Methods*, 2(3), 21-35.
- Maguire, S., Hardy, C., & Lawrence, T. B. (2004). Institutional entrepreneurship in emerging fields: HIV/AIDS treatment advocacy in Canada. *Academy of Management journal*, 47(5), 657-679.
- Malerba, F., & Orsenigo, L. (1995). Schumpeterian patterns of innovation. *Cambridge Journal of Economics*, 19(1), 47-65.
- Marx, K. (1970). Thesis on Feuerbach. In C. J. Arthur (Ed.), *The German ideology* (pp. 121-123). New York: International Publishers (Original work published 1844).
- Mattingly, C. (1991). Narrative reflections on practical actions: Two learning experiments in reflective storytelling. In D. Schön (Ed.) *The reflective turn: Case studies in and on educational practice*, 235-257. New York: Publisher Teachers College Press
- Mattsson, J., Sundbo, J., & Fusing-Jensen, C. (2005). Innovation systems in tourism: The roles of attractors and scene-takers. *Industry and Innovation*, 12(3), 357-381.

- Merriam, S. B. (1998). *Qualitative Research and Case Study Applications in Education. Revised and Expanded from "Case Study Research in Education."* San Francisco: Jossey-Bass Publishers.
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340-363.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: A sourcebook*. Beverly Hills: Sage.
- Munhall, P. L. (1989). Philosophical ponderings on qualitative research methods in nursing. *Nursing Science Quarterly*, 2(1), 20-28.
- Müller-Seitz, G. (2012). Leadership in interorganizational networks: A literature review and suggestions for future research. *International Journal of Management Reviews*, 14(4), 428-443.
- Nelson, R. R. (1993). *National innovation systems: A comparative analysis*. New York: Oxford University Press.
- Ness, H., Aarstad, J., Haugland, S. A., & Grønseth, B. O. (2014). Destination development: The role of interdestination bridge ties. *Journal of Travel Research*, 53(2), 183-195.
- Newell, S., Robertson, M., Scarbrough, H., & Swan, J. (2009). *Managing knowledge work and innovation* (2nd ed.). Basingstoke: Palgrave Macmillan.
- Nicolini, D. (2009). Zooming in and out: Studying practices by switching theoretical lenses and trailing connections. *Organization Studies*, 30(12), 1391-1418.
- Nicolini, D., Gherardi, S., & Yanow, D. (2003). *Knowing in organizations: A practice-based approach*. Armonk, NY: M.E. Sharpe.
- Nicolini, D., & Monteiro, P. (2017). The practice approach: For a praxeology of organisational and management studies. In A. Langley & H. Tsoukas (Eds.), *The SAGE handbook of process organization studies* (pp. 110-126). London: Sage.
- Nilsen, B. T., & Dale, B. E. (2013). Defining and categorizing experience industries. In J. Sundbo & F. Sørensen (Eds.), *Handbook of the Experience Economy* (p. 65-83). Cheltenham: Edward Elgar.
- Nilsen, E., & Gausdal, A. (2012). *The roles of orchestrator in innovative SME networks. The case of Health Innovation*. Paper presented at the INBAM, International Network of Business and Management Journals, Valencia, Spain.
- Nilsen, E., & Gausdal, A. (2017). The multifaceted role of the network orchestrator - a longitudinal case study. *International Journal of Innovation Management*, 21(6), 1-23.
- Nordin, S., & Westlund, H. (2009). Social capital and the life cycle model: The transformation of the destination of Åre. *Turizam: znanstveno-stručni časopis*, 57(3), 259-284.

- Novelli, M., Schmitz, B., & Spencer, T. (2006). Networks, clusters and innovation in tourism: A UK experience. *Tourism Management*, 27(6), 1141-1152.
- Nærings- og Fiskeridepartementet (2016-2017). *Stortingsmelding 19*. Oslo, Norway. Retrieved from <https://www.regjeringen.no/no/dokumenter/meld.-st.-19-20162017/id2543824/sec1>.
- Nærings- og Handelsdepartementet (2007). *Verdifulle opplevelser: nasjonal strategi for reiselivsnæringen*. Oslo, Norway. Retrieved from: https://www.regjeringen.no/globalassets/upload/nhd/vedlegg/strategier2007/nhd_reiselivsstrategi---endelig-utgave.pdf
- OECD. (2005). *Oslo manual : Guidelines for collecting and interpreting innovation data* (3rd ed.). Paris: OECD.
- Olsen, H. (2001). Kvalitative analysestrategier og kvalitetssikring. *Nyhedsbrev (nov. 2001)*, Arhus: Center for kvalitativ metodeudvikling.
- Orr, J. E. (1996). *Talking about machines: An ethnography of a modern job*. New York: Cornell University Press.
- Orton, J. D., & Weick, K. E. (1990). Loosely coupled systems: A reconceptualization. *Academy of Management Review*, 15(2), 203-223.
- Owen-Smith, J., & Powell, W. W. (2004). Knowledge networks as channels and conduits: The effects of spillovers in the Boston biotechnology community. *Organization Science*, 15(1), 5-21.
- Pantzar, M., & Shove, E. (2010). Understanding innovation in practice: A discussion of the production and re-production of Nordic Walking. *Technology Analysis & Strategic Management*, 22(4), 447-461.
- Paquin, R. L., & Howard-Grenville, J. (2013). Blind dates and arranged marriages: Longitudinal processes of network orchestration. *Organization Studies*, 34(11), 1623-1653.
- Pavitt, K. (1984). Sectoral patterns of technical change: Towards a taxonomy and a theory. *Research Policy*, 13(6), 343-373.
- Pearce, D. G. (2014). Toward an integrative conceptual framework of destinations. *Journal of Travel Research*, 53(2), 141-153.
- Pettigrew, A. M. (1987). Context and action in the transformation of the firm. *Journal of Management Studies*, 24(6), 649-670.
- Pettigrew, A. M. (1990). Longitudinal field research on change: Theory and practice. *Organization Science*, 1(3), 267-292.
- Pettigrew, A. M. (1997). What is a processual analysis? *Scandinavian Journal of Management*, 13(4), 337-348.
- Pfarr, C. (2006). Tourism policy in the making: An Australian network study. *Annals of Tourism Research*, 33(1), 87-108.

- Pine, B. J., & Gilmore, J. H. (1999). *The experience economy: Work is theatre & every business a stage*. Harvard: Harvard Business Press.
- Pittaway, L., Robertson, M., Munir, K., Denyer, D., & Neely, A. (2004). Networking and innovation: A systematic review of the evidence. *International Journal of Management Reviews*, 56(3-4), 137-168.
- Poole, M. S., Van de Ven, A. H., Dooley, K., & Holmes, M. E. (2000). *Organizational change and innovation processes: Theory and methods for research*. Oxford: Oxford University Press.
- Popper, K. R., & Notturmo, M. A. (1994). *The myth of the framework: In defence of science and rationality*. London, New York: Routledge.
- Porter, M. E. (1990). *The competitive advantage of nations*. London: Macmillan.
- Powell, W. W., Koput, K. W., & Smith-Doerr, L. (1996). Interorganizational collaboration and the locus of innovation: Networks of learning in biotechnology. *Administrative Science Quarterly*, 116-145.
- Powell, W. W., Packalen, K., & Whittington, K. (2012). Organizational and institutional genesis: The emergence of high-tech clusters in the life sciences. In J. F. Padgett & W. W. Powell (Eds.), *The emergence of organizations and markets* (pp. 434-465). Oxfordshire: Princeton University Press.
- Powell, W. W., White, D. R., Koput, K. W., & Owen-Smith, J. (2005). Network dynamics and field evolution: The growth of interorganizational collaboration in the life sciences. *American Journal of Sociology*, 110(4), 1132-1205.
- Prats, L., Guia, J., & Molina, F.-X. (2008). How tourism destinations evolve: The notion of tourism local innovation system. *Tourism and Hospitality Research*, 8(3), 178-191.
- 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.
- Quinn, R. E., & Cameron, K. (1983). Organizational life cycles and shifting criteria of effectiveness: Some preliminary evidence. *Management science*, 29(1), 33-51.
- Rantala, O., Valtonen, A., & Markuksela, V. (2011). Materializing tourist weather: Ethnography on weather-wise wilderness guiding practices. *Journal of Material Culture*, 16(3), 285-300.
- Rasborg, K. (2013). Socialkonstruktivismen i klassisk og moderne sociologi. In L. Fuglsang, P. Bitch Olsen, & K. Rasborg (Eds.), *Videnskabsteori i samfundsvidenskabene-på tværs af fagkulturer og paradigmer* (3 ed., pp. 404-438). Samfundslitteratur: Narayana Press.
- Rasmussen, M. A. (2016). *Facilitating value co-creation in networks: An empirical analysis of business networks in Ringsted Municipality* (Doctoral dissertation). Roskilde Roskilde Universitet.

- Reckwitz, A. (2002). Toward a theory of social practices: A development in culturalist theorizing. *European Journal of Social Theory*, 5(2), 243-263.
- Ring, P. S., & Van de Ven, A. H. (1994). Developmental processes of cooperative interorganizational relationships. *Academy of management review*, 19(1), 90-118.
- Rivera, J. (2004). Institutional pressures and voluntary environmental behavior in developing countries: Evidence from the Costa Rican hotel industry. *Society and Natural Resources*, 17(9), 779-797.
- Rogers, E. M. (1983). *Diffusion of innovations* (3rd ed.). New York: NY: Free Press.
- Romero, D., & Molina, A. (2011). Collaborative networked organisations and customer communities: Value co-creation and co-innovation in the networking era. *Production Planning & Control*, 22(5-6), 447-472.
- Rønningen, M. (2001). *Norges-image blant utenlandske turister* (0807-2647). Retrieved from <https://brage.bibsys.no/xmlui/bitstream/handle/11250/144937/Forskningsrapport%20772001.pdf?sequence=1>
- Rønningen, M., & Lien, G. (2014). The importance of systemic features for innovation orientation in tourism firms. In G. Alsos, D. Eide, & E. Madsen (Eds.), *Handbook of Research on Innovation in Tourism Industries* (pp. 27-55). Cheltenham: Edward Elgar.
- Sautter, E. T., & Leisen, B. (1999). Managing stakeholders a tourism planning model. *Annals of Tourism Research*, 26(2), 312-328.
- Sayer, A. (1997). Essentialism, social constructionism, and beyond. *Sociological Review*, 45(3), 453-487.
- Schatzki, T. R. (2001). Practice mind-ed orders. In T. Schatzki, K. Knorr-Cetina, & E. von Savigny (Eds.), *The practice turn in contemporary theory* (Vol. 11, pp. 50-63). London: Routledge.
- Schmookler, J. (1966). *Invention and economic growth*. Cambridge, Mass: Harvard University Press.
- Schreiber, L. M., & Valle, B. E. (2013). Social constructivist teaching strategies in the small group classroom. *Small Group Research*, 44(4), 395-411.
- Schumpeter, J. A. (1934). *The theory of economic development*. Harvard: Oxford University Press.
- Schumpeter, J. A. (1947). Theoretical problems of economic growth. *The Journal of Economic History*, 7(S1), 1-9.
- Sheehan, L., Ritchie, J. B., & Hudson, S. (2007). The destination promotion triad: Understanding asymmetric stakeholder interdependencies among the city, hotels, and DMO. *Journal of Travel Research*, 46(1), 64-74.
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22(2), 63-75.

- Shove, E., & Pantzar, M. (2005). Consumers, producers and practices: Understanding the invention and reinvention of Nordic walking. *Journal of Consumer Culture*, 5(1), 43-64.
- Skålén, P., Pace, S., & Cova, B. (2015). Firm-brand community value co-creation as alignment of practices. *European Journal of Marketing*, 49(3/4), 596-620.
- Smith, K. G., Carroll, S. J., & Ashford, S. J. (1995). Intra-and interorganizational cooperation: Toward a research agenda. *Academy of Management Journal*, 38(1), 7-23.
- Soekijad, M., van den Hooff, B., Agterberg, M., & Huysman, M. (2011). Leading to learn in networks of practice: two leadership strategies. *Organization Studies*, 32(8), 1005-1027.
- Somekh, B., & Lewin, C. (2011). *Theory and methods in social research*. London: Sage.
- Stuck, J., Broekel, T., & Revilla Diez, J. (2016). Network structures in regional innovation systems. *European Planning Studies*, 24(3), 423-442.
- Sundbo, J. (2009). Innovation in the experience economy: A taxonomy of innovation organisations. *The Service Industries Journal*, 29(4), 431-455.
- Sundbo, J. (2010). *Public-private networks and services innovation in knowledge intensive services. A report of European case studies*. Retrieved from <http://css.ruc.dk/Publikationer/RR1005.pdf>
- Sundbo, J., & Hagedorn-Rasmussen, P. (2008). The backstaging of experience production. In J. Sundbo & P. Darmer (Eds.), *Creating experiences in the experience economy* (pp. 83-110). Cheltenham, UK: Edward Elgar.
- Sundbo, J., Orfila-Sintes, F., & Sørensen, F. (2007). The innovative behaviour of tourism firms—Comparative studies of Denmark and Spain. *Research Policy*, 36(1), 88-106.
- Sundbo, J., Sørensen, F., & Fuglsang, L. (2013). Innovation in the experience sector. In J. Sundbo & F. Sørensen (Eds.), *Handbook on the experience economy* (pp. 228-247). Cheltenham: Edward Elgar Publishing Ltd.
- Swan, J., & Scarbrough, H. (2005). The politics of networked innovation. *Human Relations*, 58(7), 913.
- Sørensen, F. (2004). *Tourism experience innovation networks: Tourism experience innovations and the role of geographically organised production and information innovation networks*. (Avhandling (dr.grad) - Roskilde Universitet, Roskilde.
- Sørensen, F. (2007). The geographies of social networks and innovation in tourism. *Tourism Geographies*, 9(1), 22-48.
- Sørensen, F., & Fuglsang, L. (2015). Social network dynamics and innovation in small tourism companies. In M. McLeod & R. Vaughan (Eds.), *Knowledge networks and tourism* (pp. 28-45). London: Routledge.

- Sørensen, F., & Mattsson, J. (2016). Speeding up innovation: Building network structures for parallel innovation. *International Journal of Innovation Management*, 20(02), 1-30.
- Tether, B. S. (2005). Do services innovate (differently)? Insights from the European innobarometer survey. *Industry & Innovation*, 12(2), 153-184.
- Thomas, R., Shaw, G., & Page, S. J. (2011). Understanding small firms in tourism: A perspective on research trends and challenges. *Tourism Management*, 32(5), 963-976.
- Toivonen, M. (2011). 10 Different types of innovation processes in services and their organisational implications. In F. Gallouj & F. Djellal (Eds.) *The handbook of innovation and services: A multi-disciplinary perspective*, (pp. 221-249). Cheltenham: Edward Elgar Publishing Limited.
- Toivonen, M., & Tuominen, T. (2009). Emergence of innovations in services. *The Service Industries Journal*, 29(7), 887-902.
- Toivonen, M., Tuominen, T., & Brax, S. (2007). Innovation process interlinked with the process of service delivery: A management challenge in KIBS. *Economies et sociétés*, 41(3), 355.
- Tremblay, P. (1998). The economic organization of tourism. *Annals of Tourism Research*, 25(4), 837-859.
- Tyre, M. J., & Von Hippel, E. (1997). The situated nature of adaptive learning in organizations. *Organization Science*, 8(1), 71-83.
- Warde, A. (2005). Consumption and theories of practice. *Journal of Consumer Culture*, 5(2), 131-153.
- World Tourism Organization (2017). *UNWTO Tourism Highlights, 2017 Edition*. Retrieved from: <http://mkt.unwto.org/publication/unwto-tourism-highlights>
- Uzzi, B. (1996). The sources and consequences of embeddedness for the economic performance of organizations: The network effect. *American Sociological Review*, 61(4), 674-698.
- Van de Ven, A. H., Polley, D. E., Garud, R., & Venkataraman, S. (1999). *The innovation journey*. New York: Oxford University Press.
- Van de Ven, A. H., & Poole, M. S. (1989). Methods for studying innovation processes. In A. H. Van de Ven, H. L. Angle, & M. S. Poole (Eds.), *Research on the management of innovation: The Minnesota studies* (pp. 31-54).
- Van de Ven, A. H., & Poole, M. S. (1995). Explaining development and change in organizations. *Academy of Management Review*, 20(3), 510-540.
- van Der Zee, E., & Vanneste, D. (2015). Tourism networks unravelled: A review of the literature on networks in tourism management studies. *Tourism Management Perspectives*, 15, 46-56.

- Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing*, 68(1), 1-17.
- Vargo, S. L., & Lusch, R. F. (2008). Service-dominant logic: Continuing the evolution. *Journal of the Academy of Marketing Science*, 36(1), 1-10.
- Von Krogh, G., Ichijo, K., & Nonaka, I. (2000). *Enabling knowledge creation: How to unlock the mystery of tacit knowledge and release the power of innovation*. Oxford University Press on Demand.
- Vygotsky, L. S. (2012). *Thought and language*. Cambridge, Mass: The MIT Press.
- Weick, K. E. (1976). Educational organizations as loosely coupled systems. *Administrative Science Quarterly*, 1-19.
- Wenger, E. (2000). Communities of Practice and Social Learning Systems. *Organization*, 7(2), 225-246.
- Wenger, E. (2003). Communities of practice and social learning systems. In D. Nicolini, D. Yanow, & S. Gherardi (Eds.), *Knowing in organizations: A practice-based approach*, (pp. 76-99). Armonk, NY: M.E. Sharpe.
- Whetten, D. A. (1981). Interorganizational Relations: A Review of the Field. *The Journal of Higher Education*, 52(1), p.1-28
- Whetten, D. A. (1989). What constitutes a theoretical contribution? *Academy of Management Review*, 14(4), 490-495.
- Witell, L., Gebauer, H., Jaakkola, E., Hammedi, W., Patricio, L., & Perks, H. (2017). A bricolage perspective on service innovation. *Journal of Business Research*, 79, 290-298.
- Yin, R. K. (2014). *Case study research: Design and methods*. Los Angeles, California: Sage publications.

The Papers

Paper 1. Towards a multilevel framework of collaborative innovation in tourism

Paper 2. Dynamics of innovation network journeys: phases and crossroads in seven regional innovation networks

Paper 3. Dynamics of network orchestrator's roles in innovation network journey: a multi-case study

Paper 4. Between company and network practices: mirroring innovative ideas

Towards a multilevel framework of collaborative innovation in tourism

5.1. Towards a multilevel framework of collaborative innovation in tourism

Authors	Olga Høegh-Guldberg, Lars Fuglsang
Year	2016
Type	Conceptual review
Status	Published in Arnesen, T., Lerfald, M. G., & Merok, E. (2016). Innovasjon i fragmenterte næringer [Innovation in fragmented industries]. Vallset: Oplandske bokforlag
Note*	Originally published in Norwegian

Olga Høegh-Guldberg og Lars Fuglsang

Innovasjons- samarbeid i reiselivsnæringen – en flernivåanalyse

Sammendrag

Reiselivsselskaper benytter felles ressurser og har behov for å samarbeide for å utvikle seg og innovere. I litteraturen om innovasjon i reiselivet kan man imidlertid finne mange ulike typer av samarbeid, og det er uklart hvilken rolle de spiller for innovasjon. Innenfor dette voksende forskningsfeltet benytter forskere slike begreper som «reiselivsnettverk», «destinasjon» eller «innovasjonssystem», eller de kombinerer flere av dem. Formålet med denne artikkelen er å beskrive og sammenligne seks ulike perspektiver på samarbeid og drøfte deres rolle for innovasjon i reiselivssektoren. Gjennomgangen drøfter også den tankegangen som ligger under de ulike typene av samarbeid, fra personavhengig samarbeid mellom bedrifter til mer generaliserte former for samarbeid mellom interessenter innenfor et institusjonalisert miljø.

Innledning

Forskningen om innovasjon i tjenesteytende næringer har fått økt oppmerksomhet de siste tiårene. Innovasjon blir ansett som nødvendig i reiselivsnæringen for å lykkes i endrede rammebetingelser. Sammenlignet med den oppmerksomheten som har blitt rettet mot hvordan innovasjon finner sted i industrien, er litteraturen lite utviklet, og det eksisterer store kunnskapshull. I denne artikkelen vil vi presentere ulike perspektiver på innovasjonssamarbeid med utgangspunkt i den foreliggende litteraturen.

Den gjenværende delen av artikkelen har følgende struktur: Først beskrives hovedaspekter og definisjoner av innovasjonssamarbeid. Etter dette drøftes fem perspektiver på begrepet, med en sjette tilnærming som en videre utvikling. Til slutt integreres de seks perspektivene i en flernivåanalyse av innovasjonssamarbeid, der denne artikkelens bidrag blir drøftet.

Artikkelen sammenligner seks generiske strategier for forskning om innovasjonssamarbeid som er relevante for reiselivsforskning. Artikkelen er inspirert av et lignende forsøk gjort av Pearce (2013) på å skille ut en konseptuell ramme for destinasjoner på basis av utvalgte, grunnleggende artikler. De generiske strategiene sammenlignes med henblikk på iboende kjennetegn ved hver av dem. Det er ikke alle av disse seks tilnærmingene som har blitt bredt anvendt i forskning om reiseliv, men det vil bli gitt noen eksempler på hvordan de har blitt brukt. Om mulig går studien tilbake til et grunnleggende arbeid som beskriver de viktigste kjennetegnene ved tilnærmingen. I de tilfellene der det ikke kan pekes ut noe grunnleggende arbeid, blir det gitt en oversikt over et bredere spekter av artikler for å peke på de viktigste kjennetegnene (jf. Pearce, 2013).

Denne formen for oversikt er valgt for å kunne klargjøre ulike posisjoner i litteraturen som omhandler et innovasjonssamarbeid, uten at denne ofte ikke er klart skilt ut. Dessuten søker denne artikkelen å drøfte hvordan et fremvoksende perspektiv på innovasjonssamarbeid i reiselivssektoren basert på en ide om institusjonell innovasjon (Hjalager, 2002, 2010) kan bli gitt en samlende ramme, hvilket bidrag den gir til forskning om innovasjonssamarbeid i reiselivssektoren, og på hvilke områder den kan videreutvikles.

Artikkelen gir en analyse av hver tilnærming ved å utlede kjennetegnene teoretisk og deretter systematisere dem i en tabell. Tabellen inkluderer en ontologi og en begrepsfesting av hver tilnærming, typer av studier som hovedsakelig brukes i forskningslitteraturen, i tillegg til hvordan innovasjonssamarbeid er mulig i hver tilnærming.¹ Selv om sammenligningen av forskningsstrategier er ment å bidra til en bedre forståelse av ulike former for forskning i studiet av innovasjonssamarbeid i reiselivssektoren, hjelper den oss også til å forstå det særegne ved en institusjonell tilnærming til innovasjonssamarbeid.

Dette er en bred, ekspertbasert gjennomgang der den analyserte litteraturen ble samlet ved hjelp av snøballmetoden. Prosessen med å identifisere de seks bestemte tilnærmingene ble støttet av diskusjoner med kolleger der tolkninger av den utvalgte tematiske litteraturen ble foretatt. Når tilnærmingene og de

¹ Med begrepet ontologi menes her hva som oppfattes som den grunnleggende kategori innenfor en vitenskapelig tilgang, for eksempel praksis eller nettverk, som i sin tur er grunnlaget for å avlede andre former og kategorier

grunnleggende artiklene var kartlagt, ble utvalget av artikler for gjennomgangen utvidet ved hjelp av et søk i Google Scholar med søkeordene «kollaborativ» pluss «innovasjon» pluss «reiseliv» (hvor mulig), med utvelgelse av de mest relevante artiklene utgitt i internasjonale forskningstidsskrifter eller antologier. Denne utvalgsmetoden skyldes det store antallet av forskningsartikler om hver tilnærming, noe som ellers ville gjøre det vanskelig å fange alle innenfor begrensningene i denne artikkelen, der det tas sikte på å konstruere en helhetlig ramme.

Innovasjonssamarbeid

Innovasjon kan defineres som realisering av nye tjenester for organisasjonen eller markedet eller nye måter å organisere tjeneste- eller vareproduksjon på. Innovasjon kan forstås og analyseres på mange måter, med en hovedlinje fra Schumpeters tidlige arbeider som fokuserte på det individuelle entreprenørskapets rolle for økonomisk utvikling (Schumpeter, 1934) til hans senere utgivelser med fokus på den rollen FoU spiller for økonomisk utvikling og verdiskaping (Schumpeter, 1947). Senere forskere har inntatt en bredere fortolkning av Schumpeter, der innovasjon betraktes både som en interaktiv prosess (Lundvall, 1988) og som en «strategisk respons på endringsprosesser i markedet og samfunnet» for bærekraftig vekst og overlevelse blant organisasjonene (Sundbo og Fuglsang, 2002, 1).

Forståelsen av innovasjon som en interaktiv prosess reflekterer et mer allment skifte i 1960-tallets organisasjonsteori, der vekten ble flyttet fra «kontroll over interne aktiviteter» til organisasjonenes håndtering av eksterne rammevilkår (Whetten, 1981, 1). Det «nye» paradigmet har dannet grunnlag for gjennomgang og etablering av klassifikasjoner. Fem årtier senere synes denne debatten ikke å ha blitt svekket, men tiltrekker seg fornyet interesse i forskningssamfunnet. Det interorganisatoriske paradigmet som studerer et sett av gjensidig sammenknyttede aktører i stedet for isolerte elementer, synes å ha kommet inn i flere disipliner, «slik som økonomi, sosiologi, antropologi og statsvitenskap, i tillegg til organisasjonsatferd, organisasjonsteori og strategisk ledelse» (Smith et al., 1995, 9).

Ved å gå utenfor organisatoriske grenser kan man lære av andres erfaringer. Ellers kan et økt interaksjonsnivå innenfor et felt også gi opphav til det Dimaggio og Powell (1983) har kalt isomorfisk endring. Innenfor det ny-institusjonelle fagperspektivet forstås isomorfi som prosesser som fører til økende likhet mellom organisasjoner innenfor et organisasjonsfelt, og litteraturen har identifisert tvang, kopiering og normer som mekanismer som fører til at organisasjoner etterligner omgivelsene. Forskningen kom derfor på et tidlig stadium til en erkjennelse av de dilemmaene som ligger i interorganisatoriske relasjoner og institusjonell på-

virkning (Dimaggio og Powell, 1983; Meyer og Rowan, 1977), noe som betyr at samarbeid vil kunne føre til innovasjon, men også til tilpasning og involvering i en samfunnsmessig sammenheng.

Ettersom den senere tids forskning (om innovasjon i reiselivssektoren) nå har oppnådd et nivå som er sammenlignbart med studier av andre økonomiske sektorer (Hjalager, 2010, 1), opererer forskere nå med begreper som «reiselivsnettverk» (Håkansson og Snehota, 2006), «destinasjon» (Pearce, 2013) og «innovasjonssystem» (Mattson et al., 2005). Det er likevel behov for en integrativ ramme som kan hjelpe oss til å forstå dilemmaer, arenaer og samarbeidsnivåer. Hovedbidraget til denne konseptuelle artikkelen er derfor å skape en slik integrativ ramme ved å gjennomgå nylig utgitt forskningslitteratur om innovasjonssamarbeid i reiselivssektoren og ut fra denne bygge opp en flernivåanalyse som retter mer oppmerksomhet mot de varierte aspektene av og ambisjonene bak slikt samarbeid.

Betraktet som en metode for gjennomføring av innovasjonsaktiviteter kan samarbeid defineres som «å bringe sammen offentlige og private aktører med relevante innovasjonsressurser, tilrettelegging for kunnskapsdeling og transformativ læring, og bygging av felles eierskap til nye innovative visjoner og praksiser» (Sørensen og Torfing, 2012, 1). Denne definisjonen er avledet av studier av offentlig innovasjon, men kan også benyttes for privat sektor. Fordelen ved denne definisjonen er at den ikke utelukkende fokuserer på økonomisk verdi, men også på innovative visjoner og praksis i bredere forstand. Den første delen av definisjonen fokuserer på samhandlingen mellom de aktørene som er involvert i innovasjonsprosessen. Kombinasjonene av slike samhandlingsprosesser vil bli drøftet mer inngående nedenfor. Den andre delen av definisjonen skisserer flere mulige tilnærminger til innovasjonssamarbeid, slik som læring, som også er av forskningsinteresse i reiselivssektoren, for eksempel slik den finnes i ideene om «Learning Tourism Destination» (Liao et al., 2010; Schianetz et al., 2007), kunnskapsdeling (Baggio og Cooper, 2010; Matlay et al., 2006; Svetlik et al., 2007) eller bygging av en innovativ visjon (Bramwell og Lane, 2000). Disse tilnærmingene er nyttige i kartleggingen av studier av innovasjon der innovasjon ikke eksplisitt brukes som begrep. Til slutt, den siste delen av felles forvaltning av utfallene av innovasjon, visjoner og praksiser gjenstår for videre forskning.

Reiselivssektoren som en arena for innovasjonssamarbeid kan defineres bredt som «alle de bedrifter, organisasjoner og anlegg som har til formål å tjene de spesifikke behovene og ønskene til turister» på et gitt sted (Mattson et al., 2005, 358). Disse arenaene er ofte kjennetegnet av et stort antall små og mellomstore bedrifter (SMB) (Hjalager, 2010), nokså lave yrkesmessige kvalifikasjoner hos

de ansatte (Rønningen et al., 2013), sesongpreget arbeid, destinasjonsutvikling (Shih, 2006) og en spesifikk etterspørsel etter reiselivsprodukter og opplevelser (Arnould og Price, 1993). Innovasjonssamarbeid vil kunne være viktig for utvikling av reiselivsprodukter i et helhetsperspektiv, men reiselivsbedrifter er ofte små, med få ressurser for nettverksarbeid og samarbeid i stor skala (Fuglsang og Eide, 2013).

Samarbeid om innovasjon kan sammenlignes langs flere dimensjoner. Samarbeidsrelasjonen kan være både formell og uformell. Formelle bånd er ofte flettet inn i et mangfold av uformelle forbindelser mellom bedriftene. Motsatsen kan defineres som «kjennetegn av kontraktmessige forpliktelser og formelle kontrollstrukturer» (Smith et al., 1995, 10). Ifølge Ring og Van de Ven (1994) kan formelle relasjoner vokse ut av formalitetene og utvikle seg til en uformell type. Det motsatte kan imidlertid også skje gjennom kontraktsfesting av uformelt samarbeid der «atferdsnormer» vil være av stor betydning (Smith et al., 1995).

Videre kan samarbeidet være lokalt eller over lang avstand (globalt) (Asheim og Isaksen, 2002; Bathelt et al., 2004). Forskjellene består dermed ofte i «steds-spesifikk» samarbeid koblet til taus kunnskap, i motsetning til overlokalt samarbeid koblet til kodifisert kunnskap. Innovasjonssamarbeid kan fokusere på utnyttelse versus utforskning, dvs. eksperimenter med nye løsninger versus tilegnelse av nye oppfinnelser (Andriopoulos og Lewis, 2009; Benner og Tushman, 2003; Sørensen og Fuglsang, 2014). Innovasjonsprosesser betraktes ofte som åpne, fordi en organisasjon «ikke kan innovere i isolasjon» (Dahlander og Gann, 2010), men de kan også gi opphav til konflikter og være basert på gjensidig utnyttning (Obstfeld, 2005). Det finnes også parametere som i seg selv er kjennetegn på samarbeid, slik som nettverksposisjon, målkongruens osv. Disse kjennetegnene og typen av samarbeid er begge viktige for å studere innovasjonssamarbeid som fenomen, og de vil også gjenspeiles i den integrative rammen.

I det følgende avsnittet vil fem forståelser av innovasjonssamarbeid bli videre utviklet på basis av en gjennomgang av de viktigste kjennetegnene ved tilnærmingene: dyadiske relasjoner, innovative praksisfellesskap, sosiale nettverk, destinasjoner og innovasjonssystemer. Den sjettede tilnærmingen til institusjonelt miljø blir drøftet som en bredere sammenheng for innovasjonssamarbeid, der vi beskriver potensialet for denne sjettede formen av slikt samarbeid.

Dyadiske relasjoner

Begrepet dyadiske bedriftsrelasjoner henviser til relasjoner mellom to organisasjoner og beskriver en kritisk form for bedriftsrelasjoner utover organisasjonenes

grenser. Dette er et omfattende tema innenfor studier av ledelse, markedsføring og organisasjon, spesielt innenfor den såkalte «International Marketing and Purchasing Group» (IMP) for internasjonal markedsføringsforskning. På grunn av at diskusjonen om dyadiske bedriftsrelasjoner hovedsakelig pågikk fra 1960 til 1990, har forskningen hovedsakelig foregått innenfor industribedrifter, med vekt på relasjonene mellom kjøpere og selgere (Dwyer et al., 1987), mellom produsenter og distributører (Anderson og Weitz, 1989; Anderson og Narus, 1990), eller fokusert på bredere gjensidige relasjoner innenfor markedsføring (Frazier, 1983) og tilpasning mellom bedrifter (Hallen et al., 1991).

I sin litteraturgjennomgang av studier av dyadiske bedriftsrelasjoner analyserte Anderson et al. (1994) en rekke studier med sikte på videre begrepsmessig utvikling. Selv om de ikke utelukket bedriftenes videre omgivelser, valgte disse forskerne å konsentrere seg om en «fokal bedrift» og en «fokal relasjon». De hevder at «dersom bedriftsnettverk skal ha fordeler utover summen av de involverte dyadiske relasjonene, må dette være basert på overveielser som finner sted innenfor dyadiske bedriftsrelasjoner vedrørende deres tilknytning til andre relasjoner» (Anderson et al., 1994, 1). I studiet av fokale relasjoner «knyttet til flere ulike relasjoner» drøfter forskerne deres funksjoner: for det første ut fra de vesentlige elementene av aktiviteter, aktører og ressurser og for det andre ut fra deres primære og sekundære funksjoner. Den viktigste forskjellen mellom de to typene av funksjoner er hvorvidt den positive eller negative effekten av relasjonen stammer fra den fokale bedriftens førstehåndsinteraksjon med en partner eller fra det å være (direkte eller indirekte) knyttet til andre relasjoner. Utfallene av de to typene av relasjoner vil kunne utfylle hverandre. Dette er imidlertid første gang at innovasjon blir betraktet som et utfall av en dyade mellom en bruker og en produsent, basert på premissene av «gjensidig sammenknyttede aktiviteter, kreativ utnyttelse av heterogenitet i form av ressurser, og gjensidighet basert på aktørens egennytte» (Anderson et al. 1994, 3). Videre kan innovasjon også være et integrert utfall av innovative virkninger av flere dyadiske relasjoner. I hvilken grad en bedrift blir påvirket eller utvikler et slikt utfall vil være avhengig av aktørens nettverkssammenheng, dvs. en «relevant» del av nettverket. Forskere definerer den viktigste forskjellen mellom det dyadiske perspektivet og nettverks-perspektivet ved å henvise til «fokuset på relasjonstilstander (f.eks. tilstanden av samarbeidet i relasjonen) i det dyadiske relasjonsperspektivet, i motsetning til fokuset på aktiviteter i nettverksperspektivet» (Anderson et al. 1994, 7).

Selv om Håkansson i sine senere arbeider for det meste opererer med begrepet nettverk, ligger vekten fortsatt på studier av nettverk sett fra en fokal bedrifts ståsted (Håkansson og Ford, 2002; Håkansson og Snehota, 1989; Håkansson og

Waluszewski, 2013), der interaksjonen betraktes «ikke bare som en enkel mekanisme», men som «en bestemt substans» som påvirker de involverte bedriftene, deres aktiviteter og ressurser (Håkansson og Waluszewski, 2013, 444). Forskerne bemerker at «ingen enkeltstående interaksjon, det være seg et salg, kjøp, rådgivning, levering eller betaling, kan forstås uten henvisning til den relasjonen den er en del av» (Håkansson og Ford, 2002, 134).

Forskningslitteratur som benytter begrepet dyadiske bedriftsrelasjoner, er opptatt av konvensjonelle markedsførings- og produksjonsdyader (Anderson og Weitz, 1989; Anderson og Narus, 1990; Dwyer et al., 1987; Frazier, 1983; Hallen et al., 1991). I den empiriske forskningslitteraturen studeres slike dyader gjennom utvekslingsprosesser i løpende bedriftsrelasjoner som beskrives som potensielt «langsiktige», (Anderson og Weitz, 1989), «arbeidsrelasjoner» (Anderson og Narus, 1990). Interessant nok, når Sheth og Parvatiyar (1995) sporer evolusjonen av markedsføringsparadigmer over tid, finner de en overgang fra relasjonsorientert til endringsorientert markedsføring, og tilbake igjen til relasjonsperspektivet. Det sistnevnte legger hovedvekten på kontinuitet, verdiskaping heller enn verdispredning og involvering fremfor utfallene i markedsføringsrelasjoner. Begrensningen i form av den dyadiske tilnærmingens smale fokus på markedsføring og det at dyader er innebygget i «interaksjoner i relasjonsnettverk», er på samme måte beskrevet av Gummeson (2004).

Forskningsarbeidene omfatter i større eller mindre grad litteraturgjennomganger (Anderson et al., 1994; Dwyer et al., 1987; Frazier, 1983; Hallen et al., 1991) brukt som grunnlag for utvikling av modeller (Anderson og Narus, 1990; Hallen et al., 1991) og forståelsesrammer (Anderson og Weitz, 1989; Dwyer et al., 1987; Frazier, 1983) for slike utvekslingsrelasjoner. Dette kan mest sannsynlig forklares som et forsøk på å utvikle suksessfaktorer for «langsiktige utvekslingsrelasjoner» som ofte utvikles i bedriftsmarkedet (Hallen et al., 1991, 29). Noen av studiene gir også kvantitative data til støtte for de hypotesene som ligger under modellene og rammene (Anderson og Weitz, 1989; Anderson og Narus, 1990; Hallen et al., 1991). Omdømme, tillit, forpliktelse, felles mål og avhengighet er blant de viktigste kjennetegnene på langvarige, dyadiske relasjoner mellom bedrifter. Innovasjon drøftes ikke, verken i smal eller bred forstand, i de tidlige studiene som benytter denne tilnærmingen, med unntak av der dette blir betraktet i lys av tidlige begreper om verdiskapingsfunksjoner, verdikjede eller verdiskapende partnerskap.

For å oppsummere de kjennetegnene ved denne tilnærmingen slik de vanligvis forekommer i forskningslitteraturen, er dyadiske bedriftsrelasjoner et langvarig samarbeid mellom to bedrifter, bygget på tillit og drevet av egeninteresse hos hver av bedriftene i dyaden. Dette var en viktig og banebrytende tilnærming til studiet

av interorganisatorisk samarbeid, men den kan synes fragmentert, ved å utelate all kompleksitet i bedriftssamarbeid som går utover dyadiske relasjoner.

Siden reiselivsforskning generelt og innovasjonsstudier i reiselivssektoren spesielt har modnet først i løpet av de siste to tiår, finnes det bare et beskjedent innslag av vitenskapelige arbeider som benytter tilnærmingen til dyadiske bedriftsrelasjoner i reiselivsstudier (Sautter og Leisen, 1999). Empiriske studier gir imidlertid ofte belegg for at dyadiske forbindelser er viktige for langvarig og uformelt samarbeid mellom reiselivsbedrifter. Ett eksempel kan være en studie av relasjoner mellom selgere og kjøpere i internasjonalt reiseliv utført av Jensen (1998) som drøfter blant annet ulike stadier av en langsiktig relasjonsprosess.

Praksisfellesskap

Praksisfellesskapstilnærmingene til nettverk og interorganisatorisk samarbeid legger vekt på sammenhengene mellom arbeid, læring og innovasjon innenfor et fellesskap av utøvere (Brown og Duguid, 1991; Newell et al., 2009). I dette perspektivet vokser innovasjon og læring ut av praksis heller enn å gå forut for praksis. Praksisfellesskap oppstår blant personer som inngår i felles arbeidsaktiviteter og/eller deler praksis innenfor og på tvers av organisasjonsenheter og ofte også på tvers av organisasjonsgrenser.

Slike fellesskap betraktes først og fremst som sosiale læringssystemer (Wenger, 1998, 2000), noe som innebærer at læring skjer hos et antall involverte enkeltpersoner som søker løsninger på felles utfordringer og dermed skaper og formidler kunnskap i praksis. Empirisk representerer derfor praksisfellesskap dynamiske kunnskapsressurser (Wenger 1998) eller ressurser for adaptive læringsprosesser (Tyre og Von Hippel, 1997). Strukturelt er sosiale læringssystemer kjennetegnet av tre elementer: praksisfellesskap, uuttalte grenser og identiteter som dannes ved tilhørighet til slike systemer (Wenger, 2003). Når det gjelder tilhørighet, skiller Wenger (2003) mellom tre ulike modaliteter som gir ulike kvaliteter til et fellesskap: involvering eller det å «gjøre ting sammen», forestillinger om eller dannelse av et faktisk bilde av en selv, fellesskapet og verden, og tilpasning til felles aktiviteter.

Empirisk innsikt er viktig for å studere dette begrepet, siden det gir mulighet til både å studere faktisk praksis og definere viktige trekk ved begrepet (Swan et al., 2002; Tyre og Von Hippel, 1997). Når en organisasjon først har oppdaget slike fellesskap, oppstår det spørsmål om deres styrbarhet og om stimulering av kunnskapsbygging og læring (Swan et al., 2002; Wenger, 2000). Selv om innovasjon blir direkte tatt opp i forskning om praksisfellesskap (Brown og Duguid,

1991), blir dette behandlet som nokså inkrementell innovasjon, improvisasjon, tilpasning og bricolage («hjemmesnekring»). Senere forskning peker imidlertid på at radikal innovasjon ofte finner sted i grenseflatene mellom fellesskaper (Swan et al., 2002).

Tidlige arbeider om praksisfellesskap var for det meste opptatt av å studere teknologihåndtering innenfor organisasjoner (Brown og Duguid, 1991; Orr, 1996; Tyre og Von Hippel, 1997). Imidlertid er det selve kjennetegnet på slike fellesskap at de er flytende og går over i hverandre (Brown og Duguid, 1991), noe som forklarer deres potensiale for etablering av bedriftsrelasjoner på tvers av organisatoriske grenser. I tillegg spiller den fysiske konteksten for slik menneskelig interaksjon en viktig rolle, og den kan også tilrettelegge for læring (Tyre og Von Hippel, 1997).

Det å overskride fellesskapet og utvikle praktisk kunnskap mellom organisasjoner og på tvers av fellesskap kan skje ved hjelp av «grenseoverskridere» (Newell et al., 2009). Ifølge Newell et al. (2009) er dette «personer med gode forbindelser» som benytter forbindelser både innenfor det fellesskapet de er en del av og til lignende representanter som er involvert i samme sosiale praksis i andre fellesskap. De spiller en entreprenørrolle og åpner den relativt lukkede gruppen i fellesskapet for ny informasjon og i enkelte tilfeller også for innovative aktiviteter.

Et lignende begrep som kanskje kan berike ideen om praksisfellesskap, er innovasjonsmiljøtilnærmingen, som ble utviklet rundt 1990. Kjerneideen om kollektive læringsprosesser og fellesskapssynergi gjør dette til en beslektet, men samtidig utvidet tilnærming til interorganisatorisk samarbeid. Innovative miljøer er kjennetegnet av

kollektive læringsprosesser, drevet av slike sosiale fenomener som overføring av kunnskap mellom generasjonene, imitasjon av vellykkede ledelsespraksiser og teknologiske innovasjoner, personlige kontakter ansikt til ansikt, formelt eller uformelt samarbeid mellom bedrifter, taus sirkulasjon av kommersiell, økonomisk eller teknologisk informasjon (Camagni, 1991, 1).

I en reiselivssammenheng drøfter Fuglsang og Eide (2012) en praksisbasert tilnærming som legger vekt på «integrasjon av nettverk i tidligere eksisterende lokale samfunnsstrukturer som tilrettelegger for læring og innovasjon» (13). Deres praksisbaserte modell, som er metaforisk fremstilt som «bandwagonprosess», er et bidrag til den løpende diskusjonen av hvordan begrep om erfaringer kan overføres til nettverksdannelse og innovasjon.

De kjennetegnet ved praksisfellesskapstilnærmingen som er gjennomgående i forskningslitteraturen, er at de dannes nedenfra og oppover på grunnlag av felles

læring gjennom utførelse av en felles samfunnsmessig oppgave. Sammenvevingen av arbeid og læring produserer taus kunnskap som er spesifikk for fellesskapet. Slike kjennetegn kan vise seg å være både en fordel og en begrensning for et medlem av et slikt fellesskap, ved at konsentrasjonen om en bestemt sosial praksis for utvikling av taus kunnskap kan legge til rette for utelatelse av kodifisert kunnskap som overføres over lengre avstander gjennom bredere informasjonsstrømmer.

Sosialt nettverk-tilnærmingen

Som et alternativ til å studere nettverk med vekt på «betydningen av felles praksiser og forståelser blant medlemmene av et fellesskap» som viktig for felles læring, finnes det også en mer statistisk, kvantitativ tilnærming der man i stedet fokuserer på strukturelle konfigurasjoner av nettverk som fungerer som «kanaler for kunnskapsflyt» (Newell et al., 2009, 165, 166). Som et mer formalisert verktøy studeres sosiale nettverk vanligvis som en type romlig samarbeid.

Sosialt nettverk-tilnærmingen har vært benyttet med hell i reiselivsforskningen. Utviklingen av den har sine røtter i en nettverksteori basert på ideer om noder og forbindelser. I sin velkjente teori om styrken i svake bånd, studerte Granovetter (1973) forbindelsene mellom mindre personlige nettverk og større strukturer. Han hevder at dersom det finnes en sterk forbindelse mellom personene A og B og mellom B og C, er det høyst sannsynlig i det minste en svak forbindelse mellom A og C. I sin kvalitative beskrivelse av sterke og svake forbindelser åpner Granovetter en mulighet for kvantitative studier. I sine studier av sterke og svake forbindelser innførte Granovetter også begrepet om en «bru» mellom A og B, dvs. «den eneste ruten informasjon eller påvirkning kan flyte fra noen kontakt med A til noen kontakt med B, og derfor også fra noen som er indirekte forbundet med A til noen som er indirekte forbundet med B» (1972, 1364). Granovetters fokus på ulike typer av forbindelser peker på en svakhet ved sosiometriske teknikker: at «det så godt som aldri gjøres forsøk på å direkte spore de nøyaktige mellommenneskelige stier som en innovasjon har fulgt» (1973, 1366). Hovedbudskapet i Granovetters teori er at enkeltpersoner er «tett knyttet til mer omfattende aspekter av sosial struktur» med svake forbindelser som både gir muligheter for integrasjon i fellesskap og tjener som kanaler for ideer, påvirkninger og informasjon som ligger fjernt fra slike enkeltpersoner (1973, 1377, 1370).

I sin drøfting av nettverkstilnærmingen henviser også Borgatti og Halgin (2011) til Burts strukturelle hull-teori som grunnleggende. Teorien oppsummeres som «ego-nettverk – skyen av noder som omgir en gitt node, sammen med forbindelsene mellom dem». Det betyr at det ikke er antallet forbindelser, men deri-

mot måten de er organisert på som er avgjørende for å motta mer ikke-redundant informasjon, som gir bedre resultater eller som blir oppfattet som en kilde til nye ideer (Borgatti og Halgin, 2011, 113). I tråd med vår fortolkning peker Borgatti og Halgin (2011) på at begge disse teoriene beskriver ide- og informasjonsdeling som et hovedtrekk ved nettverksdannelse: «konseptet er det samme, og det er også resultatene: mer ny informasjon» (Borgatti og Halgin 2011:1171). Denne «sosiale» konstitueringen av et nettverk kan utledes av en voksende litteratur om sosial kapital, som innenfor ledelsesområdet beskriver nettverk ut fra termer som kreativitet, yteevne, entreprenørskap, mobilitet, makt osv. Studier av entreprenørskap, som er et felt med økende anvendelse innenfor nettverksforskning, legger vekt på innhold, styring og struktur i nettverksrelasjoner som de viktigste områdene (Hoang og Antoncic, 2003). Den strukturelle tilnærmingen benyttes også i studier av entreprenørskap på ulike stadier av en bedrifts utvikling (Greve, 1995; Greve og Salaff, 2003).

Analysen av litteraturen om samarbeid på sosialt nettverksnivå i reiselivssektoren har gitt følgende resultater. De hovedkategoriene forskerne opererer med, er nettverk, inkludert sosiale nettverk (Borgatti og Foster, 2003), komplekse sosiale nettverk (Miguéns og Mendes, 2008), reiselivsdestinasjon (Baggio et al., 2010; Shih, 2006), klynger (Erkuş-Öztürk, 2009) og diagonale klynger (Novelli et al., 2006). I sin oversiktsartikkel klassifiserer Van der Zee og Vanneste (2015) studier av reiselivsnettverk i fire hovedområder: bedriftsnettverk, policynettverk, «koopterende» nettverk og nettverkskonfigurasjoner. Ontologisk betraktes nettverk som aktører/noder som angir personer, bedrifter osv. knyttet sammen av et sett av forbindelser/grensesnitt/relasjoner (Borgatti og Foster, 2003; Miguéns og Mendes, 2008; Novelli et al., 2006). Selv om andre forskere beskriver nettverkelementer på samme måte, legger de også vekt på andre kjennetegn ved nettverk, slik som kompleksitet og tilpasningstrekk (Baggio et al., 2010), eller de betraktes i en videre sammenheng av økonomiske, kulturelle og sosiale aktiviteter innenfor en destinasjon (Shih, 2006). Blant de arbeidene som ble gjennomgått, er casestudier en vanlig metode for å samle inn data (Baggio et al., 2010; Erkuş-Öztürk, 2009; Novelli et al., 2006; Shih, 2006), i tillegg til konvensjonelle studier av forskningslitteratur (Borgatti og Foster, 2003) og statistiske data (Miguéns og Mendes, 2008). Analyser av sosiale nettverk omfatter metoder for å studere «sosiale miljøer» som «mønstre eller regulariteter i relasjoner mellom interagerende enheter» (Wasserman og Faust, 1994, 3, 4). Det betyr at aktørene er gjensidig avhengige av hverandre, relasjonene mellom dem bidrar potensielt til flyt av ressurser, nettverk impliserer både muligheter og begrensninger for de enkelte medlemmene, og struktur konseptualiseres som «varige mønstre av relasjoner».

Analyser av sosiale nettverk benyttes hovedsakelig som et verktøy for kvantitative analyser av trekk ved nettverket (ofte basert på surveydata eller en kombinasjon av surveydata og nettverksdata (Aarstad et al., 2015a, 2015b), mens det er få som har pekt på nødvendigheten av kvalitativ analyse for å få frem en hensiktsmessig casebeskrivelse og dermed gode funn. Et nylig arbeid av Hoarau et al. (2014) kan være ett av få eksempler på kombinasjonen av kvantitative og kvalitative metoder.

Ingen lignende innovasjonstilfeller ble funnet i den studerte litteraturen: noen kommer frem til at en lav grad av samarbeid er skadelig for innovasjon (Baggio et al., 2010), mens andre trekker sine konklusjoner på grunnlag av omfanget av det nettverket som studeres. Blant annet Novelli et al. (2006) finner at samarbeid har en positiv virkning for bedret kvalitet, økt synlighet, kryssmarkedsføring, osv. De fleste (unntatt én) av de gjennomgåtte artiklene betrakter likevel innovasjon som en gevinst (Erkuş-Öztürk, 2009) eller et utfall av nettverksarbeid: gjennom læring (Borgatti og Halgin, 2011) eller kunnskaps- og informasjonsoverføring (Baggio et al., 2010; Miguéns og Mendes, 2008). En nylig utgitt artikkel av Hoarau og Kline (2014) drøfter betydningen av nettverkslignende relasjoner mellom næringsliv og forskning for innovasjon gjennom «co-creation». Forskning om reiselivsnettverk og innovasjon kan likevel sies å være svakt integrert på tvers av forskningsområdene og mangler empirisk belegg for gevinster (Van der Zee og Vanneste, 2015).

For å oppsummere forskningsfunnene er sosiale nettverk vanligvis forstått som en strukturell konfigurasjon av noder og forbindelser som tjener som kanaler for overføring av læring og deling av kunnskap. Innenfor nettverkstilnærmingen er statistikk og kvantifisering teoretisk nyttig for visualisering, men også begrensende ved sin mangel på kvalitative beskrivelser (Ahuja et al., 2012; Sørensen og Fuglsang, 2014). Selv om det hevdes at opprettelse og vedlikehold av nettverksaktiviteter er nyttige for reiselivsbedrifter, innebærer dette også kostnader som kan være demotiverende for enkelte av dem.

Destinasjon

Det finnes en rekke forskere innenfor både økonomiske og sosiologiske disipliner som drøfter reiselivsdestinasjoner som potensielt rike miljøer for samarbeid om innovasjon. Dette begrepet i særdeleshet benyttes bredt innenfor reiselivsforskning, og det forener noen av trekkene i både praksisfelleskaps-tilnærmingen og sosialt nettverk-tilnærmingen på en ikke umiddelbart åpenbar måte. Strømningene i forskningen om destinasjoner omfatter destinasjonsforvaltning og markedsføring, i tillegg til destinasjonsutvikling. Destinasjoner studeres også i ulike

perspektiver: turister, bedrifter, markedsføringsorganisasjoner for destinasjoner (Destination Marketing Organizations – DMO) og andre offentlige aktører. Omfanget av forskning om destinasjoner er så bredt at det er umulig å gå i dybden av den, men vi skal hen vise til noen generaliserende arbeider og angi noen retninger som er nyttige for denne artikkelens formål.

Den brede anvendelsen av begrepet har gitt opphav til en misforstått oppfatning av destinasjonen som «reiselivets hjerte» (Leiper, 2000). Det har derfor blitt gjort en rekke forsøk på å komme frem til en konsensus om hva en destinasjon er. Et slikt forsøk er blitt gjort av Framke (2001), som beskriver den kompleksiteten som er involvert i å finne en enhetlig mening av «destinasjon», først og fremst på grunn av de motstridende forståelsene av hva som er en destinasjons viktigste attributter: fysiske grenser, innhold, samarbeid eller turistatferd. Han konkluderer med at en destinasjon ikke bare er et statisk fenomen, men også et dynamisk, der «interaksjon, samarbeid, nettverk og sosial praksis er viktige aktiviteter som beskriver en «destinasjon», dens innhold, dens relasjoner og dens turister» (Framke, 2001, 2). Denne linjen av forskning er ennå ikke uttømt. Haugland et al. (2011) har utviklet et integrert flernivåperspektiv på destinasjoner, der de understreker at forskningen fremhever bare enkelte deler av destinasjonsutvikling. De betrakter en destinasjon gjennom et prisme av destinasjonens egenskaper og indre og ytre forbindelser, og fremhever betydningen av samarbeid for utvikling av destinasjoner, spesielt brobyggende forbindelser til andre destinasjoner, noe som er viktig for imiterende innovasjon. Blant nylige arbeider som integrerer ulike perspektiver på destinasjoner finnes også ett av Pearce (2013), som gjennomgår begreper om næringsregioner, klynger, nettverk, systemer og sosiale konstruksjoner slik de anvendes på destinasjoner. Viktige trekk ved disse begrepene gir grunnlag for å utvikle en integrativ ramme som består av den geografiske dimensjonen, produksjonsmåte og en dynamisk dimensjon. Det alle disse begrepene synes å ha felles er gjensidige avhengighetsrelasjoner og behovet for samarbeid innenfor en bestemt lokalisering, noe som også betraktes som en kilde til innovasjon, spesielt i klyngetilnærmingen. Den sistnevnte tilnærmingen har også blitt fremhevet av Nordin (2003): «den gjensidige avhengigheten mellom attraksjoner, tjenester, transport, informasjon og reklame understreker behovet for samarbeid, og det er åpenbart at bedrifter lokalisert innenfor en destinasjon har mye å vinne ved å være plassert nær hverandre» (17).

Innovasjonssamarbeid innenfor en destinasjon er et lovende forskningsområde som forener ulike strømninger. For det første har litteraturen om destinasjonsutvikling, inkludert bedriftsutvikling og utvikling av selve destinasjonen med dens «nedarvede næringstradisjoner, spesifikk infrastruktur, kompetanse og ferdigheter

og handelssystemer» (Hjalager, 2010) vist at samarbeid er viktig. For det andre er samarbeid et viktig område i forskningen om markedsføring av destinasjoner (f.eks. Buhalis, 2000; Jensen og Korneliussen, 2002; Mossberg, 2007), også med vinkling mot innovasjonsforskning (Hjalager 2010; Nordin, 2003). Markedsføringsforskningen bekrefter at turistene ikke oppfatter én enkelt bedrift eller én bestemt attraksjon, men i stedet ser et kompleks av attraksjoner og forhold innenfor en destinasjon som danner en opplevelse eller et inntrykk i synergi («totalopplevelse»), og dermed representerer «et integrert system innenfor et begrenset geografisk område» (Nordin, 2003). For det tredje har den viktige strømmen av opplevelsesbasert litteratur som drøfter den avanserte etterspørselen reiselivsbedrifter står overfor, også tatt opp innovasjonssamarbeid innenfor destinasjoner (Arnould og Price, 1993; Eide og Fuglsang, 2013; Mossberg, 2008; Sørensen, 2004).

Flere studier av destinasjoner har derfor en felles forståelse av den nettverksdannelsen innenfor et bestemt geografisk rom som er rettet mot oppbygging av en reiselivsdestinasjon, dvs. å fylle dette geografiske rommet med mening og opplevelser. De stedsspesifikke kjennetegnene gjør at reiselivsbedrifter får en felles visjon og interesse i å tilrettelegge for samarbeid, og spesielt innovasjonssamarbeid.

Innovasjonssystemer

Blant de første forskerne som benyttet betegnelsen «nasjonalt innovasjonssystem», var Bengt-Åke Lundvall og Christopher Freeman på sent 80- og tidlig 90-tall, fulgt av betydelige arbeider om nasjonale innovasjonssystemer (Edquist, 1997). Etter dette har det kommet en lang rekke bidrag om innovasjonssystemer av varierende skala. Siden dette ikke er en teori i seg selv, hviler tilnærmingen til innovasjonssystemer på andre teorier, slik som teorier om interaktiv læring, evolusjon eller innovasjon (Edquist, 1997). Som en tilnærming beskrives innovasjonssystemer gjennom åtte felles trekk: fokus på innovasjon og læring, et helhetlig og tverrfaglig perspektiv, et historisk perspektiv, forskjeller og sammenligning mellom systemer, gjensidig avhengighet mellom systemets aktører og ikke-linearitet, variasjoner i innovasjonsbegrepet, institusjonenes sentrale rolle og konseptuell vaghet (Edquist, 1997, 15-29). Det finnes begreper om nasjonale (Edquist og Lundvall, 1993; Nelson, 1993), regionale (Cooke et al., 1997; Doreux, 2002) og lokale innovasjonssystemer (Cassiolato og Lastres, 2000; Mytelka, 2000), i tillegg til sektorielle innovasjonssystemer (Malerba, 2002; Nelson og Rosenberg, 1993) og teknologiske systemer (Carlsson og Stankiewicz, 1991). For å definere denne tilnærmingen må vi, slik som Edquist (1997) i hans studier

av innovasjonssystemer, se på de komponentene systemet består av. Begrepet avgrensnes for det første av en geografisk eller sektoriell/næringsmessig dimensjon. For det andre representerer systemer et sett av institusjoner og samhandlingen mellom dem, noe som definerer det innovative potensialet av den dimensjonen de representerer.

Tilnærmingen til nasjonale innovasjonssystemer (NIS) har sin opprinnelse i studier av fremgangsrisk nasjonal økonomisk vekst og fremhever institusjonenes og spesielt statens rolle. Den er basert på komparative studier av nasjonale (Nelson, 1993; Wong, 1999) og regionale innovasjonssystemer (Asheim og Coenen, 2005) og hadde som mål å formulere politikk som kunne stimulere til vekst og utvikling. Den kunnskapen som ble utviklet over to og et halvt tiår, har blitt gjenstand for videre teoretisering og begrepsdannelse. For eksempel drøfter Edquist (2004) hvilket potensiale NIS har for å bli mer teorilignende, fordi det mangler «begrepsmessig presisjon, klarhet og en klar identifisering av avhengige og uavhengige variabler og deres innbyrdes forhold» (486). Lundvall (2007) kritiserer forsøkene på å gjøre begrepet «mer rigorøst» ved å peke ut aktiviteter eller funksjoner som påvirker innovasjon. I sin drøfting av innovasjonssystemer peker Carlsson et al. (2002) på vagheten i tilnærmingen når det gjelder analytisk nivå, systemets grenser og de spesielle problemene forbundet med å studere resultatene fra et slikt system. Den felles ontologiske forståelsen av nasjonale innovasjonssystemer er likevel som systemer bestående av komponenter, relasjoner og attributter nedfelt i en sosioøkonomisk sammenheng og som er rettet mot innhenting og formidling av kunnskap.

Bemerkelsesverdig nok har det blitt utført studier som gransker og begrepsfester reiseliv i lys av innovasjonssystemer (Mattsson et al., 2005; Prats et al., 2008). Som Mattsson et al. (2005) bemerker, har teorier om innovasjonssystemer blitt utviklet med henblikk på en teknologitung industrisektor og bør derfor skilles fra innovasjoner innenfor tjenesteyting som er «av en mer sosial eller organisatorisk karakter» (358). Sundbo og Gallouj (2000) hevder for eksempel at innovasjonssystemer innenfor tjenesteyting består av løst sammenkoblede strukturer. Tether og Metcalfe (2004) mener at innovasjonssystemer i tjenesteytende næringer dannes rundt et problem som et fokalt punkt. Studier av reiselivsnæringen på basis av tilnærmingen til innovasjonssystemer i tjenesteytende næringer arver den «systemiske» komponenten i samhandlingen innenfor «nettverket av institusjoner i offentlig og privat sektor» (Freeman, 1987, 1), og dynamikken i denne «krever kontinuerlig læring for å tilpasse seg til utfordringene» (Soete et al., 2010, 18). Selv om de ovennevnte studiene bruker ulike definisjoner på systemer, har de en felles forståelse av at reiselivsbedriftenes situering innenfor et videre miljø er

spesielt viktig med henblikk på innovative formål, og skjuler derved det potensialet for ressurser og læring som er vesentlig for et stort flertall av de små og mellomstore bedriftene i reiselivsnæringen.

Den felles forståelsen av innovasjonssystemtilnærmingen i forskningslitteraturen er at gjennom sin vektlegging av systemiske trekk i innovasjonsprosessen tenderer den til å analysere faktorer på makronivå som gjennom sammensatte gjensidige avhengigheter benytter ulike former for innovasjonspolitik for å understøtte og tilrettelegge for innovasjon innenfor og mellom bedrifter på mikronivå. Begrensningene i denne tilnærmingen synes å være av to typer (Soete et al., 2010): for det første begrenses nasjonal innovasjonspolitik av globaliseringsprosesser, og for det andre begrenses det klassiske begrepet om innovasjon som basert på FoU som et resultat av utviklingen av moderne kommunikasjonsteknologi og informasjonsflyt på internett.

Institusjonelt miljø

Det finnes en omfattende forskning om innovasjonssamarbeid der interorganisatoriske relasjoner drøftes både i smal (dyadiske bedriftsrelasjoner) og bred forstand (kontinentale innovasjonssystemer) (Freeman, 2002). Utviklingslinjene i tilnærmingene til innovasjonssamarbeid har en felles logikk. Denne omfatter institusjonell forankring. Dette innebærer felles forståelse av nødvendigheten av åpenhet og samhandling med omgivelsene for å sikre en bærekraftig bedriftsutvikling. Denne utviklingstrenden ble påpekt allerede av Granovetter (1973) som hevdet at svakheten var at interaksjonen på mikronivå ikke var relatert til interaksjon på makronivå «på noen som helst overbevisende måte» (1360). Bidragene fra etterfølgende forskning har i stor grad tettet dette hullet ved å definere forankringen som «det å være tilhørende i en videre struktur» (Johannisson et al., 2002, 297) og ved å påpeke at interaksjonen med omgivelsene har en systemisk karakter. Vektleggingen av dette miljøet i ulike begrepsfestinger varierer imidlertid; den øker etterhvert som omfanget av samhandlingen vokser, fra bedriftsdyader frem mot dypere integrasjon i interaktive prosesser. Til støtte for dette argumentet har Johnson og Lundvall (1992) innført anvendelsen av institusjonell økonomi på innovasjonssystemer, der de drøfter institusjonelle oppsett i relasjon til nasjonale innovasjonssystemer. Man kan imidlertid fortsatt høre krav om at det er nødvendig å videreutvikle begrepet om «forankring» av den økonomiske aktiviteten til en lokal bedrift eller et lokalt nettverk (Johannisson et al., 2002).

Vi foreslår derfor en annen tilnærming der innovasjonssamarbeid drøftes i en videre samfunnsmessig sammenheng som vi vil betegne «det institusjonelle miljøet». Dette fordi bedrifter generelt, og reiselivsbedrifter spesielt, står overfor

nødvendigheten av samarbeid utover lokale nettverk med institusjoner og organisasjoner i andre områder av miljøet, spesielt de som påvirker informasjonsflyt, læring og utprøving. Typene av miljø kan fremstilles på ulike måter. De kan drøftes ut fra sitt omfang, som mikro-, meso- og makromiljøer (Prats et al., 2008). Noen forskere peker på ulike dimensjoner som er avgjørende for reiselivsbedrifters innovasjonsevne, slik som politiske, økonomiske, teknologiske, sosiale og historiske (Prats et al., 2008), mens andre fordyper seg i studiet av typer av institusjoner som påvirker innovasjonssamarbeid langs en bestemt dimensjon, slik som Hall og Tribe (2003). Buhalis et al. (1995) drøfter relasjonene mellom reiselivsbedrifter og deres omgivelser i et økonomisk perspektiv med henblikk på ulike interesser blant reiselivsbedrifter, turister, turoperatører, vertsbefolkningen, offentlig sektor og myndigheter. Andre forskere legger vekt på at skillet mellom lokalt og globalt samarbeid er avgjørende for samarbeidsevne (se ovenfor, f.eks. Ashheim og Isaksen, 2002; Bathelt et al., 2004)

Denne tilnærmingen betrakter derfor samarbeid mellom reiselivsbedrifter som aktive samfunnsmedlemmer (og ikke bare som nærhetsbasert samarbeid), der man gjennom forhandlinger bestemmer eller endrer den generelle kursen for økonomisk atferd, avgjør konflikter og inngår avtaler. Teoretisk er utviklingen av denne tilnærmingen basert på institusjonell teori på det organisatoriske eller nærmere bestemt på det interorganisatoriske feltet (Dimaggio og Powell, 1983; Meyer og Rowan, 1977; Oliver, 1991). Denne litteraturen drøfter hvordan en organisasjon tilpasser seg til regler og verdier innenfor et institusjonelt miljø for å oppnå legitimitet eller andre fordeler og studerer typer av isomorfisk atferd, endringer i organisasjonsstruktur og strategiske responser på institusjonelle prosesser. Institusjonelt miljø gir potensielt «legitimitet, ressurser, stabilitet og bedre utsikter til overlevelse» (Meyer og Rowan, 1977, 340). I en institusjonell sammenheng preget av egne rutiner og vaner gir organisasjonenes endringer opphav til i det minste inkrementell innovasjon. Når imidlertid et organisatorisk felt har vokst frem, oppstår det et interessant paradoks rundt den brede homogeniteten blant organisasjonene (Dimaggio og Powell, 1983). Dette betyr at isomorfisk atferd av enhver type (påtvunget, mimetisk eller normativ) ikke bare fører til endring, men også til stabilisering, noe som skaper et dilemma for forskning om innovasjon med henblikk på hvorvidt institusjonelle sammenhenger fremmer eller er til hinder for innovasjonssamarbeid. Dette dilemmaet drøftes som «konvergens» av Borgatti og Foster (2003) som forklarer det gjennom tilhørigheten til det samme bedriftsmiljøet og de samme interessentene. I litteraturen ligger likevel den felles ontologiske forståelsen av det institusjonelle miljøet i en bred sosioøkonomisk forankring av en sosial aktør som er forbundet med aktiv eller passiv endring.

Selv om institusjonell teori forklarer hvordan institusjonelle oppsett påvirker et organisatorisk felt, gir den bare i begrenset grad forklaringer på hvordan institusjonelle oppsett blir skapt, dvs. den er en «begrenset handlingsteori» (Fligstein, 1997; Maguire et al., 2004). Anvendt på reiselivsforskning gjelder dette hvordan innovativ atferd blant reiselivsbedrifter kan realiseres i en bredere samfunnsmessig sammenheng. Arbeider i forskningslitteraturen om institusjonelt entreprenørskap har forsøkt å dekke dette spørsmålet (Fligstein, 1997; Maguire et al., 2004; Svejnova et al., 2007). De forklarer hvordan samfunnsmessige aktører kan påvirke og bidra til institusjonelle oppsett. Institusjonalisering av et miljø er resultatet av løpende forhandlinger blant ulike institusjoner og organisasjoner som er enige om en felles fremgangsmåte. I reiselivsnæringen kan totalopplevelsen innenfor en destinasjon være et eksempel. Reiselivsbedrifter, forvaltningsselskapet for destinasjonen, vertskommunen, lokalsamfunnet og andre organisasjoner søker å fylle dette rommet med mening, fortelle en historie og knytte sammen ulike attraksjoner og opplevelser for å innfri turistenes kriterier for å ville oppholde seg på en bestemt destinasjon. De samarbeidende bedriftene tilpasser seg derfor til den fastsatte felles kursen ved å endre sine produkter og organisasjoner, tilpasse sine strategier og innovere enten inkrementelt eller radikalt, og de bidrar på denne måten samtidig til det eksisterende organisatoriske oppsettet.

Forskningen finner belegg for at bedrifter har ulik evne til å påvirke institusjonelle oppsett (Fligstein, 1997). Enkelte bedrifter har sterkere sosiale evner, dvs. de er i stand til å handle strategisk for å danne felles identiteter innenfor feltet, mens andre må tilpasse seg til denne identiteten for å opprettholde legitimitet og konkurranseevne. Hvorvidt en organisasjon kan opprettholde og videreutvikle den felles retningen, avhenger også av dens evne til å begrunne sine handlinger. Denne evne til å begrunne hevdes i sin tur å være avhengig av bedriftens engasjement i miljøet: fra bare å være kjent til å kunne gjennomføre planlagte handlinger og videre til et begrunnelsesregime med «kollektive oppfatninger om et felles gode» (Thévenot, 2001). Både gode sosiale evner og institusjonelle entreprenørskapsaktiviteter kan variere avhengig av statusen til et bestemt organisatorisk felt, dvs. hvorvidt det er «under dannelse, stabilt eller i krise» (Fligstein 1997, 398), noe som bestemmer potensialet for institusjonell endring. Maguire et al. (2004) definerer på denne måten tre kritiske aktiviteter for institusjonelle entreprenører i fremvoksende områder: «innhav av subjektposisjon», som skaper legitimitet og knytter sammen ulike interessenter, «teoretisering av nye praksiser» og «institusjonalisering av disse nye praksisene» (657). Svejnova et al. (2007) beskriver de kvalitetene som fremmer evnen til sterkt institusjonelt entreprenørskap gjennom de fire «mekanismene» kreativitet, teoretisering, omdømme og formidling, på

basis av data fra en longitudinell casestudie av en kjøkkensjef som også var eier av en spansk restaurant.

På samme måte som institusjonelt entreprenørskap tar sikte på å forklare fremveksten av institusjonelle oppsett utviklet Hargrave og Van de Ven (2006) en kollektiv handlingsmodell for institusjonell innovasjon. De drøfter handlingsmodellen som en av fire dimensjoner av institusjonell endring, sammen med design, tilpasning og spredning. Den kollektive handlingsmodellen forklarer institusjonell endring dialektisk som et resultat av samhandling mellom feltets aktører, i form av konflikt, makt og politikk (Hargrave og Van de Ven, 2006).

Selv om institusjonell endring har vært drøftet i forskningslitteraturen i rundt fire tiår (Dimaggio og Powell, 1983; Fennell, 1980; Meyer og Rowan, 1977), finnes det få uttalte eksempler på institusjonell innovasjon i reiselivssektoren. Blant de få eksemplene som finnes, er «nye spilleregler» som endrer institusjonenes retning, beskrevet av Hjalager (2002, 466). Hjalager (2010) definerer «institusjonell innovasjon» som «en ny, omfattende kollaborativ/organisatorisk struktur eller juridisk ramme som effektivt omdirigerer eller forsterker næringslivet i bestemte områder av reiselivet» (3). Slik altomfattende endring skjer på tvers av sektorer og kan ha virkning for mer enn ett organisatorisk område.

Det sterke teoretiske grunnlaget som er beskrevet i dette kapitlet, gir et potensiale for videre teoretisk utvikling av tilnærmingen til institusjonelt miljø for studier av innovasjonssamarbeid i reiselivssektoren. Institusjonelt miljø er på denne måten en handlingsorientert tilnærming der samhandlingen blir «bygget» i en bred samfunnsmessig sammenheng, og der tilslutning til en institusjonalisert retning gir legitimitet, ressurser og konkurransevne til reiselivsbedrifter.

Drøfting og konklusjon

De seks tilnærmingene til innovasjonssamarbeid som har blitt skissert i artikkelen, kjennetegnes av spesifikke trekk som er oppsummert i tabellen under. Tabellen har fire kolonner: ontologi, begrepsfesting, metodologi og innovasjon. Ontologi refererer til de ulike synspunktene på kunnskapsobjektet og hvordan dette objektet finnes i forskningen, dets væren. For eksempel betrakter praksisfellesskapstilnærmingen verden som praksis og prosess, mens en sosial nettverk-tilnærming ser på verden som bestående av noder og relasjoner. Kolonnen «begrepsfesting» beskriver hvordan ontologien blir observert og teoretisk utlagt i forskningen. Kolonnen «metodologi» beskriver den fremherskende metodologien som er valgt i de gjennomgåtte arbeidene: kvantitativ eller kvalitativ. Den ytterste høyre kolonnen beskriver hvordan relasjonen mellom innovasjon og samarbeid blir forstått.

Tabell 1: Oppsummering av de viktigste funnene i den gjennomgåtte litteraturen om innovasjonssamarbeid

Tilnær- minger	Ontologi	Begrepsfesting	Metodo- logi	Innovasjon
Dyadiske relasjo- ner	Utvekslingspro- sesser i løpende forretningsforbin- delse mellom to partnere.	Langsiktig samarbeid mel- lom to selskaper, bygget på tillit og drevet av egeninte- resse hos hver av bedriftene i en dyade.	Kvanti- tativ og kvalitativ	Innovasjon kan vokse frem fra dyadiske relasjoner mel- lom to bedrifter gjennom deres nære samhandling over tid og deres egenin- teresse.
Praksis- fellesskap	Sosial læring innenfor praksis- fellesskap.	Dannes nedenfra og oppover på basis av felles læring gjennom utføring av en felles sosial oppgave. Sammenveving av arbeid og læring produserer taus kunnskap som er spesifikk for fellesskapet.	Kvalitativ	Innovasjon kan vokse frem i praksisbaserte fellesskap fokusert rundt læring og utvikling av en bestemt praksis.
Sosial nettverk- tilnær- mingen	Et sett av aktører/ noder som beskri- ver mennesker, be- drifter etc. knyttet sammen av et sett av forbindelser/ grenseflater/rela- sjoner.	Den strukturelle konfigu- rasjonen av forbindelser og noder tjener som kanaler som knytter sammen både lokale og fjernt beliggende bedrifter.	Hoved- sakelig kvantitativ	Innovasjonsaktiviteter er forankret i ulike typer av nettverk som tjener som kanaler for utnyttelse og utprøving.
Destina- sjon	Gjensidige avhen- ghetsforhold mellom sosiale aktører innenfor en bestemt lokali- sering.	Nettverksdannelse innenfor et bestemt geografisk rom rettet mot oppbygging av en reiselivsdestinasjon, dvs. det å fylle rommet med mening og opplevelser.	Hoved- sakelig kvalitativ	Innovasjon finner sted lokalt i geografiske områder der offentlige og private aktører samarbeider for å bygge opp reiselivsdestina- sjoner.
Innova- sjons- systemer	Et system av kom- ponenter, relasjo- ner og attributter forankret i en sosiøkonomisk kontekst og rettet mot innhenting og formidling av kunnskap.	Analysere oftest faktorer på makronivå som under- støtter og tilrettelegger for innovasjon innenfor og mellom bedrifter på mikro- nivå gjennom ulike former for innovasjons-politikk.	Kvalitativ og kvanti- tativ (ho- vedsakelig deskrip- tivt)	Innovasjonsaktiviteter i bedrifter støttes gjennom policyinitiativer. Innova- sjonssystemer i tjenestey- tende næringer kan vokse frem som løst sammenkob- lede strukturer eller rundt problemområder som fungerer som et fokus.
Institu- sjonelt miljø	En sosial aktørs sosiøkonomisk forankring, for- bundet med aktiv eller passiv end- ring.	Samhandling bygges i en bred samfunnmessig kon- tekst der tilslutning til en institusjonalisert retning gir legitimitet, ressurser og konkurranssevne.	Teoritung, ofte rettet mot case- studier.	Innovasjon finner sted in en samfunnmessig sam- menheng og innbefatter sosiale og politiske kon- flikter som bedriftene kan bli økende engasjert i, og som fører til endring av det institusjonelle miljøet.

Selv om de ulike tilnærmingene har ganske ulike ontologier og gjør ulike antagelser om verden, kan de tolkes som ulike perspektiver på innovasjonssamarbeid som kan integreres bedre, både sett fra utøvernes synspunkt og i forskningen.

Hva utøverne angår, kan det antydes at de ulike ontologiene blir relevante på ulike stadier av innovasjonsprosessen. Ett forslag kunne være at på de første stadiene av en innovasjonsprosess er perspektivet på dyadiske og nære relasjoner viktig for å initiere innovasjon. En bedrift vil være henvist til et lite nettverk av familie og venner med en lang historie. Det vil senere bli nødvendig å anlegge et sosialt nettverk-perspektiv for å utvide relasjonene og motta mer input fra utenverdenen. Lenger ut i prosessen kan destinasjonsontologien bli relevant. Utøvere må i tillegg bygge opp støttestrukturer og ha oppmerksomheten rettet mot innovasjonssystemer. På lang sikt blir det viktig å opprettholde en innovasjon gjennom praksisfellesskap og bli mer involvert i det institusjonelle miljøet, fordi konflikter over ressurser og begrunnelse av innovasjonen blir viktige spørsmål. Hvorvidt slike stadier med endrede perspektiver faktisk kan beskrives eller ikke, og om de er relevante for utøvere, er spørsmål for videre forskning; dette inkluderer også rekkefølgen av stadiene.

I lys av det ovenstående kan vi i et forskningsperspektiv også hevde at de ulike tilnærmingene og ontologiene kan integreres i en analyseramme. Analyserammen omfatter de ulike analytiske perspektivene på innovasjonssamarbeid i tillegg til en rekke analytiske dimensjoner som går på tvers av de ulike perspektivene. Innenfor institusjonell teori er dette en parallell til Scott (1995) som på basis av en gjennomgang av litteraturen skiller mellom tre «pillarer» for institusjoner: regulative, normative og kognitive. Ved dette mener han pillarer som utgjør eller støtter opp under institusjoner fra et analytisk synspunkt. Langs disse linjene kan vi skille mellom ulike pillarer som utgjør eller støtter opp under innovasjonssamarbeid. På tvers av de seks pillarene som er skissert i tabellen over, kan vi peke ut bestemte analytiske dimensjoner som varierer mellom ulike forskere (jf. Scott, 1995, s. 35). Tre slike tverrgående dimensjoner er beskrevet nedenfor:

1. Forbindelser (eller samarbeidstetthet). De ulike tilnærmingene fremstiller forbindelser og samarbeidstetthet på ulik måte. Dyader består på denne måten av to parter. Praksisfellesskap vil kunne omfatte et ulikt antall deltakere rundt en aktivitet, men likevel begrenset av en enkelt aktivitet. Sosialt nettverk-tilnærmingen understreker at både lokale og distanserte partnere er viktige. Destinasjonstilnærmingen omfatter stedsspesifikke samarbeidsmønstre som også kan omfatte partnere innenfor andre næringer enn reiseliv. Innovasjonssystemer omfatter et mangfold av forbindelser, både næringsspesifikt samarbeid og

interaksjon med støttestrukturer på et samfunnsmessig nivå. Og til slutt, institusjonell forankring omfatter bredt varierte forbindelser, der benyttelsen og vedlikeholdet av disse avhenger av enkeltaktørers engasjement. Videre har de ulike tilnærmingene forskjellige oppfatninger om sterke forbindelser som kan være personlige, fellesskapsorienterte og lokale (stedsspesifikke), svake forbindelser, som vanligvis kjennetegner fjerntliggende bedriftsrelasjoner og kombinasjoner av disse.

2. Varighet. De samarbeidsmønstrene som drøftes i de ulike tilnærmingene, kjennetegnes av ulik varighet, noe som også gjenspeiler en prosessorientering versus episodiske typer av samarbeid. Dyadiske relasjoner representerer interaksjon over tid, mens praksisfellesskap vektlegger prosess og aktivitet som den viktigste sammenhengen for innhenting av kunnskap. Sosialt nettverk-tilnærmingen impliserer både opprettholdelse av varige, lokale relasjoner og nyttige fjerntliggende forbindelser. Destinasjonstilnærmingen legger vekt på vedlikehold av langsiktige gjensidige avhengigheter innenfor en bestemt lokalitet, mens innovasjonssystemer innbefatter en langvarig prosess for etablering av institusjonelt samarbeid og dannelse av støttestrukturer. Til slutt, institusjonelt miljø-tilnærmingen innebærer at en sosial aktør har en langsiktig tilhørighet til et bredere miljø. De analytiske underkategoriene er derfor lang varighet som kan variere fra langsiktige personlige relasjoner til dannelse av strukturer og kontekstuell avhengighet, kort varighet eller en kombinasjon av disse to.
3. Sted. Den analytiske kategorien for sted eller grenser for samarbeid er en viktig variabel i flere tilnærminger. I dyadiske relasjoner er den vanligvis smalt stedsspesifikk, i praksisfellesskap er den mer utvasket, men bredere, og i destinasjonstilnærmingen er den enda bredere, men avgrenset av geografiske kriterier. Sosialt nettverk-tilnærmingen bryter ned grenser som en variabel som er til hinder for kunnskapsoverføring ved å åpne for mulighetene og nytten av både lokal kunnskapsdeling og kunnskapsoverføring over lengre distanser. Innovasjonssystem-tilnærmingen beholder de stedsspesifikke grensene, men utvider dem vertikalt til interaksjon med høyere nivåer av institusjons- og resursstrukturer. Og til slutt, institusjonelt miljø antyder at grenseprosessene er både brede og uskarpe. Underkategoriene er derfor stedsspesifikt samarbeid og samarbeidsforbindelser over lange distanser, og en kombinasjon av disse to.

De analytiske dimensjonene med respektive underkategorier er gjengitt i tabellen på neste side.

Tabell 2: De analytiske dimensjonene av den integrerte analyserammen for innovasjonssamarbeid

Analytiske kategorier/dimensjoner	Dyadiske relasjoner	Praksisfellesskap	Sosialt nettverk-tilnærmingen	Destinasjon	Innovasjonssystemer	Institusjonelt miljø
Variasjon i forbindelser						
Sterke forbindelser						
Personlige	X					
Fellesskapsorienterte		X				
Steds-spesifikke				X		
Svake forbindelser						
Fjerntliggende						
Mangfoldige			X		X	X
Varighet						
Lang						
Personlige relasjoner	X					
Dannelse av strukturer					X	
Kontekstuell avhengighet (fellesskap, lokalt, samfunnsmessig)		X		X		X
Kort						
Mangfoldige			X			
Sted						
Stedsspesifikk	X	X		X		
Fjerntliggende						
Mangfoldig			X		X	X

Resultatet av denne gjennomgangen er en begrepsfesting av ulike pillarer som utgjør og understøtter innovasjonssamarbeid og analytiske dimensjoner som varierer mellom de ulike pillarene. Denne analyserammen er av teoretisk karakter. Videre forskningsarbeid vil kunne undersøke hvorvidt modellen kan begrunnes empirisk, spesielt for de perspektivene og dimensjonene som synes relevante for utøvere av innovasjonssamarbeid på ulike stadier. I tillegg er det behov for en videre drøfting av hvorvidt og hvordan ulike tilnærminger til innovasjonssamarbeid kan benyttes parallelt eller supplere hverandre analytisk og hvilke forskningsproblemer dette eventuelt vil gi opphav til.

Når det gjelder studiens begrensninger, dekker gjennomgangen ikke fullt ut samarbeid med andre typer av interessenter enn bedrifter. Gjennomgangen er derfor begrenset til produksjonssiden og tar ikke hensyn til kundenes rolle. Videre studier bør ta sikte på å undersøke ulike kundeperspektiver innenfor de seks skisserte pillarene.

Referanser

- Aarstad, J., Ness, H., & Haugland, S. A. (2015a). Innovation, uncertainty, and inter-firm shortcut ties in a tourism destination context. *Tourism Management*, 48, 354-361.
- Aarstad, J., Ness, H., & Haugland, S. A. (2015b). Network position and tourism firms' co-branding practice. *Journal of business research*.
- Ahuja, G., Soda, G., & Zaheer, A. (2012). The genesis and dynamics of organizational networks. *Organization science*, 23(2), 434-448.
- Anderson, E., & Weitz, B. (1989). Determinants of continuity in conventional industrial channel dyads. *Marketing science*, 8(4), 310-323.
- Anderson, J. C., Håkansson, H., & Johanson, J. (1994). Dyadic business relationships within a business network context. *the Journal of Marketing*, 1-15.
- Anderson, J. C., & Narus, J. A. (1990). A model of distributor firm and manufacturer firm working partnerships. *the Journal of Marketing*, 42-58.
- Andriopoulos, C., & Lewis, M. W. (2009). Exploitation-exploration tensions and organizational ambidexterity: Managing paradoxes of innovation. *Organization science*, 20(4), 696-717.
- Arnould, E. J., & Price, L. L. (1993). River magic: extraordinary experience and the extended service encounter. *Journal of consumer Research*, 24-45.
- Asheim, B. T., & Coenen, L. (2005). Knowledge bases and regional innovation systems: Comparing Nordic clusters. *Research policy*, 34(8), 1173-1190.
- Asheim, B. T., & Isaksen, A. (2002). Regional innovation systems: the integration of local 'sticky' and global 'ubiquitous' knowledge. *The Journal of Technology Transfer*, 27(1), 77-86.
- Baggio, R., & Cooper, C. (2010). Knowledge transfer in a tourism destination: the effects of a network structure. *The Service Industries Journal*, 30(10), 1757-1771.
- Baggio, R., Scott, N., & Cooper, C. (2010). Network science: A review focused on tourism. *Annals of Tourism Research*, 37(3), 802-827.
- Bathelt, H., Malmberg, A., & Maskell, P. (2004). Clusters and knowledge: local buzz, global pipelines and the process of knowledge creation. *Progress in human geography*, 28(1), 31-56.
- Benner, M. J., & Tushman, M. L. (2003). Exploitation, exploration, and process management: The productivity dilemma revisited. *Academy of management review*, 28(2), 238-256.
- Borgatti, S. P., & Foster, P. C. (2003). The network paradigm in organizational research: A review and typology. *Journal of management*, 29(6), 991-1013.
- Borgatti, S. P., & Halgin, D. S. (2011). On network theory. *Organization science*, 22(5), 1168-1181.

- Bramwell, B., & Lane, B. (2000). Collaboration and partnerships in tourism planning. *Tourism collaboration and partnerships: Politics, practice and sustainability*, 1-19.
- Brown, J. S., & Duguid, P. (1991). Organizational learning and communities-of-practice: Toward a unified view of working, learning, and innovation. *Organization science*, 2(1), 40-57.
- Buhalis, D. (2000). Marketing the competitive destination of the future. *Tourism Management*, 21(1), 97-116.
- Buhalis, D., Fletcher, J., Coccossis, H., & Nijkamp, P. (1995). Environmental impacts on tourist destinations: an economic analysis. *Sustainable tourism development*, 3-24.
- Camagni, R. (1991). *Innovation networks*: John Wiley & Sons, Inc.
- Carlsson, B., Jacobsson, S., Holmén, M., & Rickne, A. (2002). Innovation systems: analytical and methodological issues. *Research policy*, 31(2), 233-245.
- Carlsson, B., & Stankiewicz, R. (1991). On the nature, function and composition of technological systems. *Journal of evolutionary economics*, 1(2), 93-118.
- Cassiolato, J. E., & Lastres, H. M. M. (2000). Local systems of innovation in Mercosur countries. *Industry and Innovation*, 7(1), 33-53.
- Cooke, P., Uranga, M. G., & Etxebarria, G. (1997). Regional innovation systems: Institutional and organisational dimensions. *Research policy*, 26(4), 475-491.
- Dahlander, L., & Gann, D. M. (2010). How open is innovation? *Research policy*, 39(6), 699-709.
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American sociological review*, 147-160.
- Doloreux, D. (2002). What we should know about regional systems of innovation. *Technology in society*, 24(3), 243-263.
- Dwyer, F. R., Schurr, P. H., & Oh, S. (1987). Developing buyer-seller relationships. *the Journal of Marketing*, 11-27.
- Edquist, C. (1997). *Systems of innovation: technologies, institutions, and organizations*: Psychology Press.
- Edquist, C. (2004). Reflections on the systems of innovation approach. *Science and Public Policy*, 31(6), 485-489.
- Edquist, C., & Lundvall, B.-A. (1993). Comparing the Danish and Swedish systems of innovation. *National innovation systems: A comparative analysis*, 265-298.
- Eide, D., & Fuglsang, L. (2013). Networking in the experience economy: scaffolded networks between designed and emerging regional development.
- Erkuş-Öztürk, H. (2009). The role of cluster types and firm size in designing the level of network relations: The experience of the Antalya tourism region. *Tourism Management*, 30(4), 589-597.
- Fennell, M. L. (1980). The effects of environmental characteristics on the structure of hospital clusters. *Administrative Science Quarterly*, 485-510.
- Fligstein, N. (1997). Social skill and institutional theory. *American behavioral scientist*, 40(4), 397-405.
- Framke, W. (2001). *The 'destination': A problematic Concept*. Paper presented at the 10th Nordic Symposium in.
- Frazier, G. L. (1983). Interorganizational exchange behavior in marketing channels: A broadened perspective. *the Journal of Marketing*, 68-78.
- Freeman, C. (1987). *Technology policy and economic performance : lessons from Japan*. London: Pinter.
- Freeman, C. (2002). Continental, national and sub-national innovation systems—complementarity and economic growth. *Research policy*, 31(2), 191-211.

- Fuglsang, L., & Eide, D. (2012). The experience turn as 'bandwagon': Understanding network formation and innovation as practice. *European Urban and Regional Studies*, 0969776412448090.
- Granovetter, M. S. (1973). The strength of weak ties. *American journal of sociology*, 1360-1380.
- Greve, A. (1995). Networks and entrepreneurship—an analysis of social relations, occupational background, and use of contacts during the establishment process. *Scandinavian journal of management*, 11(1), 1-24.
- Greve, A., & Salaff, J. W. (2003). Social networks and entrepreneurship. *Entrepreneurship Theory and Practice*, 28(1), 1-22.
- Gummesson, E. (2004). *From one-to-one to many-to-many marketing*. Paper presented at the Service Excellence in Management: Interdisciplinary Contributions, Proceedings from the QUIS 9 Symposium, Karlstad University Karlstad, Sweden.
- Hall, C. M., & Tribe, J. (2003). *Tourism and public policy*: Cengage Learning EMEA.
- Hallen, L., Johanson, J., & Seyed-Mohamed, N. (1991). Interfirm adaptation in business relationships. *the Journal of Marketing*, 29-37.
- Hargrave, T. J., & Van de Ven, A. H. (2006). A collective action model of institutional innovation. *Academy of management review*, 31(4), 864-888.
- Haugland, S. A., Ness, H., Grønseth, B.-O., & Aarstad, J. (2011). Development of tourism destinations: An integrated multilevel perspective. *Annals of Tourism Research*, 38(1), 268-290.
- Hjalager, A.-M. (2002). Repairing innovation defectiveness in tourism. *Tourism Management*, 23(5), 465-474.
- Hjalager, A.-M. (2010). A review of innovation research in tourism. *Tourism Management*, 31(1), 1-12.
- Hoang, H., & Antoncic, B. (2003). Network-based research in entrepreneurship: A critical review. *Journal of business venturing*, 18(2), 165-187.
- Hoarau, H., & Kline, C. (2014). Science and industry: Sharing knowledge for innovation. *Annals of Tourism Research*, 46, 44-61.
- Hoarau, H., Wigger, K., & Bystrowska, M. (2014). 13. Innovation and climate change: the role of network relations and the attitudes of tourism actors on svalbard. *Handbook of Research on Innovation in Tourism Industries*, 303.
- Håkansson, H., & Ford, D. (2002). How should companies interact in business networks? *Journal of business research*, 55(2), 133-139.
- Håkansson, H., & Snehota, I. (1989). No business is an island: the network concept of business strategy. *Scandinavian journal of management*, 5(3), 187-200.
- Håkansson, H., & Snehota, I. (2006). No business is an island: The network concept of business strategy. *Scandinavian journal of management*, 22(3), 256-270.
- Håkansson, H., & Waluszewski, A. (2013). A never ending story—Interaction patterns and economic development. *Industrial Marketing Management*.
- Jensen, O., & Korneliussen, T. (2002). Discriminating perceptions of a peripheral Nordic destination among European tourists. *Tourism and Hospitality Research*, 3(4), 319-330.
- Jensen, Ø. (1998). *Kjøper-selger-relasjoner innenfor internasjonal reiselivsnæring: en studie av samspelet mellom bedriftene ut fra ønske om utvikling av varige konkurransefortrinn*. (1998:4), Handelshøjskolen i Århus, Institutt for markedsøkonomi, Det erhvervsøkonomiske fakultet, Århus.

- Johannisson, B., Ramírez-Pasillas, M., & Karlsson, G. (2002). The institutional embeddedness of local inter-firm networks: a leverage for business creation. *Entrepreneurship & Regional Development, 14*(4), 297-315.
- Johnson, B., & Lundvall, B. (1992). Closing the institutional gap? *Revue d'économie industrielle, 59*(1), 111-123.
- Leiper, N. (2000). Are Destinations' The Heart of Tourism? The Advantages of an Alternative Description. *Current Issues in Tourism, 3*(4), 364-368.
- Liao, S.-H., Chang, W.-J., & Wu, C.-C. (2010). An integrated model for learning organization with strategic view: Benchmarking in the knowledge-intensive industry. *Expert Systems with applications, 37*(5), 3792-3798.
- Lundvall, B. (1988). Innovation as an interactive process: from user-producer interaction to the national system of innovation. *Technical Change and Economic Theory. Pinter Publishers, United Kingdom, 349-369.*
- Lundvall, B. Å. (2007). National innovation systems—analytical concept and development tool. *Industry and Innovation, 14*(1), 95-119.
- Maguire, S., Hardy, C., & Lawrence, T. B. (2004). Institutional entrepreneurship in emerging fields: HIV/AIDS treatment advocacy in Canada. *Academy of Management Journal, 47*(5), 657-679.
- Malerba, F. (2002). Sectoral systems of innovation and production. *Research policy, 31*(2), 247-264.
- Matlay, H., Braun, P., & Hollick, M. (2006). Tourism skills delivery: Sharing tourism knowledge online. *Education+ Training, 48*(8/9), 693-703.
- Mattsson, J., Sundbo, J., & Fussing-Jensen, C. (2005). Innovation systems in tourism: The roles of attractors and scene-takers. *Industry and Innovation, 12*(3), 357-381.
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American journal of sociology, 340-363.*
- Miguéns, J., & Mendes, J. (2008). Travel and tourism: Into a complex network. *Physica A: Statistical Mechanics and its Applications, 387*(12), 2963-2971.
- Mossberg, L. (2007). A marketing approach to the tourist experience. *Scandinavian Journal of Hospitality and Tourism, 7*(1), 59-74.
- Mossberg, L. (2008). Extraordinary experiences through storytelling. *Scandinavian Journal of Hospitality and Tourism, 8*(3), 195-210.
- Mytelka, L. K. (2000). Local systems of innovation in a globalized world economy. *Industry and Innovation, 7*(1), 15-32.
- Nelson, R. R. (1993). National innovation systems: a comparative analysis. *University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship.*
- Nelson, R. R., & Rosenberg, N. (1993). Technical innovation and national systems. *National innovation systems: a comparative analysis. Oxford University Press, Oxford, 1-18.*
- Newell, S., Robertson, M., Scarbrough, H., & Swan, J. (2009). *Managing knowledge work and innovation*: Palgrave Macmillan.
- Nordin, S. (2003). Tourism clustering & innovation: Paths to economic growth & development.
- Novelli, M., Schmitz, B., & Spencer, T. (2006). Networks, clusters and innovation in tourism: A UK experience. *Tourism Management, 27*(6), 1141-1152.
- Obstfeld, D. (2005). Social networks, the tertius iungens orientation, and involvement in innovation. *Administrative Science Quarterly, 50*(1), 100-130.

- Oliver, C. (1991). Strategic responses to institutional processes. *Academy of management review*, 145-179.
- Orr, J. E. (1996). *Talking about machines: an ethnography of a modern job*: Cornell University Press.
- Pearce, D. G. (2013). Toward an Integrative Conceptual Framework of Destinations. *Journal of Travel Research*.
- Prats, L., Guia, J., & Molina, F.-X. (2008). How tourism destinations evolve: The notion of tourism local innovation system. *Tourism and Hospitality Research*, 8(3), 178-191.
- Ring, P. S., & Van de Ven, A. H. (1994). Developmental processes of cooperative interorganizational relationships. *Academy of management review*, 19(1), 90-118.
- Rønningen, M., Lien, G., & Mehmetoglu, M. (2013). The Importance of Systemic Features for Innovation Orientation in Norwegian Tourism Firms. 1-29.
- Sautter, E. T., & Leisen, B. (1999). Managing stakeholders a tourism planning model. *Annals of Tourism Research*, 26(2), 312-328.
- Schianetz, K., Kavanagh, L., & Lockington, D. (2007). The learning tourism destination: The potential of a learning organisation approach for improving the sustainability of tourism destinations. *Tourism Management*, 28(6), 1485-1496.
- Schumpeter, J. A. (1934). *The Theory of Economic Development*. Harvard: Oxford University Press.
- Schumpeter, J. A. (1947). Theoretical problems of economic growth. *The Journal of Economic History*, 7(S1), 1-9.
- Scott, W. R. (1995). *Institutions and organizations* (Vol. 2): Sage Thousand Oaks, CA.
- Sheth, J. N., & Parvatiyar, A. (1995). The evolution of relationship marketing. *International Business Review*, 4(4), 397-418.
- Shih, H.-Y. (2006). Network characteristics of drive tourism destinations: An application of network analysis in tourism. *Tourism Management*, 27(5), 1029-1039.
- Smith, K. G., Carroll, S. J., & Ashford, S. J. (1995). Intra-and interorganizational cooperation: Toward a research agenda. *Academy of Management Journal*, 38(1), 7-23.
- Soete, L., Verspagen, B., & Ter Weel, B. (2010). Systems of innovation. *Handbook of the Economics of Innovation*, 2, 1159-1180.
- Sundbo, J., & Fuglsang, L. (2002). *Innovation as strategic reflexivity*: Psychology Press.
- Sundbo, J., & Gallouj, F. (2000). Innovation as a loosely coupled system in services. *International Journal of Services Technology and Management*, 1(1), 15-36.
- Svejenova, S., Mazza, C., & Planellas, M. (2007). Cooking up change in haute cuisine: Ferran Adrià as an institutional entrepreneur. *Journal of Organizational Behavior*, 28(5), 539-561.
- Svetlik, I., Stavrou-Costea, E., & Lin, H.-F. (2007). Knowledge sharing and firm innovation capability: an empirical study. *International Journal of Manpower*, 28(3/4), 315-332.
- Swan, J., Scarbrough, H., & Robertson, M. (2002). The construction of 'communities of practice' in the management of innovation. *Management learning*, 33(4), 477-496.
- Sørensen, E., & Torfing, J. (2012). Introduction: Collaborative innovation in the public sector. *Innovation Journal*, 17(1), 1-14.
- Sørensen, F. (2004). Tourism experience innovation networks. *Unpublished Ph. D., Roskilde University: Department of Social Science, Roskilde*.

- Sørensen, F., & Fuglsang, L. (2014). *Social Network Dynamics and Innovation in Small Tourism Companies*. Paper presented at the 22nd Nordic Symposium in Tourism and Hospitality Research.
- Tether, B. S., & Metcalfe, J. S. (2004). *Services and Systems of Innovation*. F. Malerba (Ed.), Sectoral Systems of Innovation. Concepts, issues and analysis of six major sectors in Europe Cambridge: Cambridge University Press.
- Thévenot, L. (2001). Pragmatic regimes governing the engagement with the world. *The practice turn in contemporary theory*, 56-73.
- Tyre, M. J., & Von Hippel, E. (1997). The situated nature of adaptive learning in organizations. *Organization science*, 8(1), 71-83.
- van der Zee, E., & Vanneste, D. (2015). Tourism networks unravelled; a review of the literature on networks in tourism management studies. *Tourism Management Perspectives*, 15, 46-56.
- Wasserman, S., & Faust, K. (1994). *Social network analysis: Methods and applications* (Vol. 8): Cambridge university press.
- Wenger, E. (1998). Communities of practice: Learning as a social system. *Systems thinker*, 9(5), 2-3.
- Wenger, E. (2000). Communities of practice and social learning systems. *Organization*, 7(2), 225-246.
- Wenger, E. (2003). Communities of Practice and Social Learning Systems. In D. Nicolini, S. Gherardi, & D. Yanow (Eds.), *Knowing in organizations: A practice-based approach*: ME Sharpe.
- Whetten, D. A. (1981). Interorganizational relations: A review of the field. *The journal of higher education*, 1-28.
- Wong, P.K. (1999). *National innovation systems for rapid technological catch-up: an analytical framework and a comparative analysis of Korea, Taiwan and Singapore*. Paper presented at the DRUID Summer Conference held in Rebild.

Paper 2




Dynamics of innovation network journeys: phases and crossroads in
seven regional innovation networks

5.2. Dynamics of innovation network journeys: phases and crossroads in seven regional innovation networks

Authors	Olga Høegh-Guldberg, Dorthe Eide, Veronika Trengereid & Kirsti Mathiesen Hjemdahl
Year	2018
Type	Empirical article
Status	Accepted to: Special issue on the Dynamics of Networks, Networking and Innovation in the Tourism Industry in the <i>Scandinavian Journal of Hospitality and Tourism</i> 18(3). Published online: 09 Jul 2018



Dynamics of innovation network journeys: phases and crossroads in seven regional innovation networks

Olga Høegh-Guldberg ^a, Dorthe Eide ^b, Veronika Trengereid ^c and Kirsti Mathiesen Hjemdahl^d

^aInland School of Business and Social Sciences, Inland Norway University of Applied Sciences, Lillehammer, Norway; ^bBusiness School Nord University, Nord University, Bodø, Norway; ^cFaculty of Business Administration and Social Sciences, Western Norway University of Applied Sciences, Høgskulen på Vestlandet, Bergen, Norway; ^dAgder Research, Kristiansand, Norway

ABSTRACT

There is a growing body of research on network driven innovation. Based on seven case studies of regional innovation networks in tourism, this paper aims to develop a better understanding of the dynamics of their development. While innovation research emphasizes the complexity of the innovation process and its cyclic and iterative nature, network research describes the development of innovation networks mainly based on linear models. Inspired by Van de Ven, Polley, Garud, and Venkataraman's [1999. *The innovation journey*. New York, NY: Oxford University Press] metaphor of a "journey", this article develops the concept of the "innovation network journey" to describe both the designed and emergent development of networks working with innovation. The development processes are categorized into phases that may be repeated throughout the network lifespan, and crossroads that lead to the changed pace or path of the network journey. The paper contributes to the existing literature by new knowledge about how crossroads can be a part of the network journey and four main critical factors leading to crossroads, namely financing, management, organizing and shared activities.

KEYWORDS

Network dynamics; innovation network journey; phases; crossroads; critical factors

Introduction

This article aims to develop new knowledge about the development of innovation networks over time. Innovation is increasingly understood as an open process involving interactions within a firm, between firms within or across sectors, and with other external stakeholders (Brandão, Costa, & Buhalis, 2018; Lundvall, 2013). The interactions can be a part of informal and/or formal networks (Smith, Carroll, & Ashford, 1995). Cooperation and networks seem more important for experience-based sectors than traditional service sectors (Sundbo, Sørensen, & Fuglsang, 2013). One reason for this is the constant change and competition experienced both globally and locally (Sørensen & Fuglsang, 2014); another is the need to create total experiences by combining different elements (Sundbo et al., 2013; Sundbo & Hagedorn-Rasmussen, 2008).

CONTACT Olga Høegh-Guldberg  ohoeghguldberg@gmail.com  Inland Norway University of Applied Sciences, Druehaven 45, 1tv., Valby 2500, Denmark

© 2018 Informa UK Limited, trading as Taylor & Francis Group

The tourism industry includes both service and experience firms, with the share of the latter increasing. It is argued that innovation statistics frequently conceal real innovation rates given the often incremental, bundled, fuzzy and “hidden” nature of innovation in service (Gallouj & Weinstein, 1997; Toivonen & Tuominen, 2009). Recent research demonstrates the high innovativeness of experience firms as compared to other sectors (Fuglsang, Sundbo, & Sørensen, 2011). Innovation often depends upon diversity and combinations of knowledge and ideas facilitated by involving different types of stakeholders (Chesbrough, 2003; Wenger, 2000), but the tourism industry often lacks a tradition of interacting *with* researchers (Clausen & Madsen, 2014).

Network dynamics is pursued in the research of structural and relational patterns (Ahuja, Soda, & Zaheer, 2012; Powell, Packalen, & Whittington, 2012), but it is mainly applied to high-tech, electronics and manufacturing industries (Pittaway, Robertson, Munir, Denyer, & Neely, 2004). Thus, little is known about the dynamic development of networks in less technological sectors (Clegg, Josserand, Mehra, & Pitsis, 2016; Gallouj, Rubalcaba, & Windrum, 2013). In tourism research, scholars tend to apply network thinking in order to understand the development of destinations (Baggio & Cooper, 2010; Scott, Baggio, & Cooper, 2008). Nevertheless, the emphasis is more on the evolutionary dynamics of network structure as prerequisite of knowledge diffusion and coproduction (Aarstad, Ness, & Haugland, 2015), and less on the development of innovation processes and practices.

Grounded in these knowledge gaps, the following research question is explored: What characterizes the innovation network journeys and what are the most critical factors influencing their dynamic development? Combining the literature of organizational change, process- and practice-based approaches and innovation journey (Van de Ven et al., 1999), a conceptual framework of what characterizes an innovation network journey is sketched out. The research question is studied through a large qualitative multi-case study of seven regional innovation networks in tourism. The paper demonstrated how seemingly similar networks embarking on their innovation journeys may follow both linear homogenous and diverse iterative developments, and explore the underlying factors.

Theoretical framework

This study focuses on the open interactive innovation process because innovation in tourism often takes place in interactions between internal and external actors, resources and knowledge (Chesbrough, 2003; Fuglsang, 2008). Innovation is defined as a new or significantly changed idea being commercialized or otherwise implemented into practice (OECD, 2005). It can be an innovation of products (goods, services, experiences), processes, concepts or business models; be a market-related or organizational innovation, institutional innovation, value networks, etc. (Hjalager, 2010; Schumpeter, 1934).

Green, Pyka, and Schön (2013) claim that “a common analytical basis” to investigate the empirical phenomenon of innovation networks is missing. The paper addresses this claim by embracing two main theoretical approaches used to study networks, i.e. the organizational change approach and the process- and practice-based approach, and develop a theoretical pre-understanding of the development of an innovation network.

The organizational and network change approach

A large body of literature addresses models of organizational change, such as evolutionary, teleological, and life-cycle models (Van de Ven & Poole, 1995). Exploring the development of innovation networks, this paper focuses on the interplay between these theories because they are recurrently applied to explain the change processes in entities of different sizes, i.e. organizations, networks or industries. Since “any one theoretical perspective invariably offers only a partial account of a complex phenomenon” of organizational development, “it is the interplay between different perspectives that helps one gain a more comprehensive understanding” of it (Van de Ven et al., 1999, p. 511).

The evolutionary theory is generally associated with the change of an entity through stages of variation, selection and retention (Van de Ven & Poole, 1995), defined largely in terms of the fitness of its architecture with environmental settings in general and the setting of a specific industry in particular (Ahuja et al., 2012; Ness, Aarstad, Haugland, & Grønseth, 2014; Powell et al., 2012). While earlier works in this tradition mainly emphasize structural form as the critical dimension of cumulative change (Hannan & Freeman, 1977), innovation network research suggests that networks develop and change permanently across their structural (e.g. number, position or type of actors and ties between them), relational (characteristics of ties between the actors, such as strong/weak or tight/loose) and spatial (proximity) dimensions (Boschma & Frenken, 2010; Powell et al., 2012). By broadening a number of the change dimensions, research also opens up for a wider variety of factors that may cause the change and originate from within and beyond the network, also endogenous (e.g. internal management) and exogenous factors (e.g. external funding), respectively.

Industry policies and public funding defined in the frameworks of formal innovation programmes set specific requirements for the participants. *The teleological theory* can serve as an analytical tool to understand the consequences of such requirements for network development as it explains the process of change by attachment to specific goals through goal setting, implementation, evaluation and modification (Chakravarthy & Lorange, 1991). It is also applied in network research from the perspective of member units, management or policy-making (Håkansson & Snehota, 2006; Pforr, 2006)

The life-cycle theory is usually associated with the sequence of the stages of start-up, growth, maturity and decline; each stage progresses from a previous one, and the stages make up the final state of the unit of change (Quinn & Cameron, 1983). The network research does not posit a unified sequence of stages or a unified set of criteria to describe the stages (Green et al., 2013; Sundbo, 2010). For example, Green et al. (2013) describe innovation network development through the stages of (1) preparation or forming, (2) development, (3) implementation or function, and (4) fulfilment, closure or sustaining through the dimensions of size, integration and network activities.

The evolutionary and teleological theories communicate the recurrent change that allows for the development of an entity in a new cycle; however, the most commonly applied life-cycle model is irreversible in its nature, assuming the immanent course of development of an entity. The mentioned stage models can be criticized for assuming that development and innovation are linear, however, innovations seldom are (Fagerberg, 2006). For example, Jernsand, Kraff, and Mossberg (2015) describe innovation as complex, non-linear and iterative. It seems reasonable to question whether network development

also can be more complex given combinations of actions, actors and other factors, and whether a network can repeat, skip or go through less usual stages in its development. Inspired by the pre-categories of change in the organizational change approach, the paper aims to answer this question by adding the essence of a process, “a sequence ... of events, actions and activities unfolding over time in context” (Pettigrew, 1997, p. 339), to our theoretical framework.

The process- and practice-based approach

A central criticism of the organizational change approach from the process approach is that, “... it is one thing to analyse the factors shaping the fate of change episodes and a much bigger and more intractable problem to produce convincing evidence that a pattern of change initiatives contributes to organizational performance” (Pettigrew, Woodman, & Cameron, 2001, p. 701). The paper aims to produce such evidence from the empirical data. In order to acknowledge the discontinuity and open-endedness of the process, the analysis must account for the process embeddedness and temporal inter-connectedness of context, action and outcomes from a holistic perspective (Pettigrew, 1997). In his broad framework guiding the processual research, Pettigrew (1997) identified content (what), outer and inner context (why) and process (how) as three main analytical categories.

This line of process research is advanced by what Antonacopoulou (2008) calls “a return to practice as a fundamental aspect of organisation” (p. 112). Antonacopoulou (2008) argues that, “the dynamism of practice ... extends the traditional view of change” and develops Pettigrew’s framework by adding the categories of practitioners, practice (what and how practitioners do) and purpose (why they do so) (p. 118). This model combines process- and practice-based streams, and is relevant to use when exploring the dynamics of innovation networks.

It is assumed in the paper that organizations are constituted by and participate in different communities. In network research, this assumption is associated with the view of networks “as communities” (Newell, Robertson, Scarbrough, & Swan, 2009). Communities can be more or less informal and emergent. They share activities, identities, meaning, repertoires, etc., and involve knowledge sharing, learning and innovation (Brown & Duguid, 1991). Learning and innovation can be facilitated and hampered by both proximity and distance, while boundary-spanning interactions across traditional communities have a great potential for radical learning and innovation due to their combined resources (Wenger, 2000). Boundary-crossing “tools”, such as arenas for interactions, boundary objects, brokers, bandwagon effects and scaffolding, can facilitate learning and innovation (Fuglsang & Eide, 2013; Wenger, 2000). Inter-organizational networks can have different purposes, dynamics, degrees of design and proximity (Clegg et al., 2016; Fuglsang & Eide, 2013), and they tend to be managed communities (i.e. having formal leaders/orchestrators) (Newell et al., 2009).

Towards a framework of innovation network journeys

In this subsection, the concept of innovation network journeys as phases and crossroads is introduced. The idea of the innovation network as a journey is inspired by Van de Ven et al.

(1999, p. 5) *The Innovation Journey*, where the metaphor is used to describe the dynamics of innovation as “neither stable and predictable nor stochastic and random”. The innovation journey is conceived as a map of an innovation process that includes “the temporal sequence of events, junctures, and hurdles” (Van de Ven et al., 1999, p. 21). Three types of elements are described as pertaining to the three periods, namely: (1) the initial period: extended gestation, internal and external innovation shocks, and development of plans to obtain funding; (2) the development period: innovation proliferation, setbacks, power struggles, varying engagement, top management and investors’ involvement, relations with other organizations, and supportive infrastructure; and (3) the implementation period: implementation of an innovation and termination of an innovation project.

The paper aims to develop the concept of the “innovation network journey” to describe the dynamic development of innovation networks in line with the open understanding of innovation. Acknowledging the previous tourism research that employs similar conceptions, e.g. the “bandwagon” (Fuglsang & Eide, 2013), our study goes further to develop a map that can both describe the sequential development and explore “events, junctures, and hurdles” that take place in order to assist in manoeuvring the innovation network’s development and securing innovation results. Elaborating on the sequential development of the innovation networks, the term “phases” is used, meaning the sequential parts of a journey that allow for the non-linearity, diversity and partial overlap. The paper seeks to identify “the generating mechanisms that give rise to innovation processes and outcomes” (Van de Ven et al., 1999) in network driven innovations. These mechanisms are expected to influence the speed of the development of an innovation network, or lead to a change in its development path. It is suggested terming them “crossroads”. A crossroad may occur as a result of a varying role of management and/or investors in the innovation process (Van de Ven et al., 1999).

Van de Ven et al. (1999) draw mainly on the change dimensions of the organizational change approach, while little evidence of the categories from the process- and practice-based approaches, such as learning and engagement, is found. The organizational change approach acknowledges the sequence of pre-determined stages and equips us with pre-categories of endogenous and exogenous change factors. However, it is argued to be advantageous to complement it with the process- and practice-based approaches since they bring forth dynamic categories of doings, such as engagement, practicing and learning, and connects the structure and the doings. Inspired by the idea of innovation journey, the two lenses make up our theoretical framework of innovation network journey, which may contribute to a more complete picture of the dynamics of innovation networks. A description of how the study was carried out follows next.

Methodology and data

The purpose of this study is to increase understanding and develop new knowledge about the dynamic nature of innovation networks, and not to test theories or enact practical changes. Therefore, the study is situated in the interpretive-constructivist paradigm (Guba & Lincoln, 1994), and within that, the hermeneutical processual approach (Alvesson & Sköldbeg, 2000). In this paradigm, the context and time are essential when studying the dynamism of network and innovation practice (Antonacopoulou, 2008; Pettigrew, 1997). Since dialogue during data collection is important, semi-structured interviews as the main method to get

a glimpse of the participants' pre-understandings (including historical, tacit and contextual knowledge) were chosen. Documents (particularly important to document activity that took place a long time ago) and observations (which were only possible in the existing networks, important to understand more of the context, people, and activities) serve as supplementary data sources. In terms of quality concerns, the paper aims to be trustworthy, interesting, relevant, ethical and thorough, and to enhance communicative validity (Kvale, 1989), the paper was made transparent. Data and method triangulation and teamwork have increased the level of thoroughness. New knowledge cannot be generalized – it can be highly relevant in other contexts and time, but this must be explored. A qualitative multi-case design (Flyvbjerg, 2001) was chosen since qualitative case studies can involve dialogue, triangulation, context and processes, and the multi-case design allows for comparison.

Case selection and context

Cases were strategically chosen using the following main selection criteria. The networks should be: (1) formal and managed; (2) regional; (3) ambitious and have innovation as the main task; (4) based on collaboration between the industry, R&D and the public sector; (5) partly or fully within the experience-based tourism industry; (6) possible to study and compare retrospectively; and (7) geographically dispersed in Norway (see Figure 1). The number of similarities make them more relevant for comparison. The exploration of alternatives showed that networks involved in the Norwegian Arena Programme and Norwegian Centres of Expertise (NCE) met all the criteria. So far, only seven tourism regional innovation networks have participated in the Arena Programme, and only one of them has entered the



Figure 1. Networks on the map of Norway (the networks are plotted by the authors on the map of Norway from Kartverket, Norgeskart.no).

NCE programme; our study covers the entire population (see, [Figure 1](#) and [Table 1](#) below). However, it is not our aim to study the Arena Programme as such; rather, the networks are studied before, during and after their participation in the Arena Programme.

The Arena Programme¹ and NCE are national innovation policy programmes that focus on the regional development of all kinds of industries. From 2004, when the first tourism Arena network was established in Norway, regional tourism industry with many small companies and little collaborative experience, especially with the R&D partners, have got an opportunity to benefit from the participation in the programmes. The programmes are owned by public bodies. The Arena Programme involves networks with newly established cooperating initiatives, but with an organization, a strategic platform and a resource foundation that increases the potential for continuous cooperative development. Long-term financing and status means that the network managers benefit from supervision and education. Both programmes cooperate with international programmes.

Data collection and analysis

The collection and analysis of the data was done by a research team of four, where three authors were responsible for two networks each and one author was responsible for one network. Two authors had previous experience interacting with three of the networks: one author has worked with Innovative Experiences (INNOVA) and Arena Profitable Winter Experiences (WINTER) as a researcher, another author has done so with Growth in Culture and Experience Industries (INLAND). Therefore, they have more in-depth knowledge about these three networks based on conversation and observation. Furthermore, one of the authors has been a manager of Arena USUS (USUS) network, as well as done research there, she did not carry out interviews or analyse that particular case, but contributed with an in-depth understanding of the Arena Programme. All of the main types of stakeholders directly involved in the networks have been interviewed. The main selection criteria were: (a) mix of main stakeholders: firms, public or supporting organizations, R&D and network management; and (b) variation of firms with regard to subsectors, board representation; size; location and gender. To secure dynamic involvement into the network processes, the informants have been representing respective organizations and companies in the networks for at least two years and up to the whole period of the networks lifespan. The majority of informants from the tourism companies are managing or marketing directors.

The interviews lasted, on average, for 1.5 hours (a few were as long as 3–4 hours), and usually took place face to face or via Skype with video, a few over the phone. The main round of data collection took place in January–May 2016, although some were conducted later. In addition, two networks (INNOVA in 2011 and INLAND in 2013) were interviewed in an earlier period (called round 1). These interviews were conducted in the frames of earlier research projects, yet they included relevant questions and are, therefore, valuable for the current study in understanding the development of innovation network practices in time (round one in the table below). Some of the informants were interviewed both in round one and two. An overview of the informants is provided in [Table 2](#).

This is an unusually large qualitative study in terms of the number of cases as well as the total number of semi-structured interviews. The weakness in the data is related to two networks, which are now dissolved, since this led to fewer interviews. Another weakness is the challenge for the informants to remember specific events in retrospect.

Table 1. Introduction of the cases.

	MOUNTAIN	INLAND	FINNMARK	FJORD	INNOVA	USUS	WINTER
Start main Arena project	2004	2005/2010	2006	2007/2009	2008	2010	2011
End Arena project	2009	2009/2017	2009	2009/2019	2012	2015	2016
Year of Arena project	5 (3 + 1+1)	5 (3 + 1+1)/3 + 5	3	2/3 + 3,5 + 3,5	4	5 (3 + 2)	5
Number of members: start, during, now/ "..." when ended	91/141–122/-	55/15/20	66/7-59 /-	200/80/90	30/30/50+	15/47-74/100+	51/61+
Where in Norway	South-Eastern Norway	Eastern Norway	Northern Norway (the northernmost county)	Western Norway	Northern Norway (mainly the southernmost county)	Southern Norway	Northern Norway (mainly the middle county and partly north and south county)
Vision during the Arena project	Profitable business operation with a high attraction capacity in targeted international tourist markets. From 2005: Innovation and international-oriented summer tourism.	To strengthen the region's competitiveness and eventually strengthen Norway's international competitiveness in the culture and experience industries/Europe's most complete region in winter sport and experiences.	Increased innovation and profitability within nature- and cultural-based tourism in Finnmark.	Leading short-term vacation destination in Europe based on the nature and culture experiences typical for their place/Leading tourism destination within active, nature-based experiences.	Together we shall enthuse our guests with world-class experience products within nature, culture and food.	Increasing re-purchase by re-visit and spreading positive feedback/ experience.	Transform the area into a unique and preferred destination with attractive world-class winter experiences.
Main type of network members (size, subsectors) during/after the Arena project	DMO and mainly SMB at these destinations (e.g. accommodation, activity or experience businesses, marketing and sales).	Winter resorts, family park, events, media production, big arrangements, amusement for families and museums.	First Visit Finnmark (representing the tourism industry), increase of tourism companies, the Sami government.	Accommodation, transportation, experience businesses, culture, micro/small, medium and some larger businesses. DMOs.	Micro/small businesses: experience-based nature, culture, food; Visit Northern Norway/ also some larger companies in accommodation and transport and some local DMOs later in the process.	Firms within infrastructure, content, guest streams and distribution. Industry groups, SMEs and microfirms.	Micro-small businesses, experience-based, some larger in transportation and accommodation, Visit Northern Norway.

Notes: Comment: Case USUS is the only original name of Arena USUS, the others are our shortened synonyms: MOUNTAIN: Innovative Mountain Tourism; INLAND: Growth in Culture and Experience Industries/Snowball, FINNMARK: Tourism Arena Finnmark, FJORD: Innovative Fjord Tourism/NCE Tourism Fjord Norway, INNOVA: Innovative Experiences; WINTER: Profitable Winter Experiences.

Table 2. Types and number of informants in each case.

Type of network stakeholders	Business members		Network management		Public or other supporting organizations		R&D		Total number of interviews per network	Total hours of interviews
	round 1/ round 2		round 1/ round 2		round 1/ round 2		round 1/ round 2			
Network										
MOUNTAIN		3		2		2		1	8	11,5
INLAND	3	5	1	3		2	1	2	17	26,5
FINNMARK		4		2		4		2	12	9,5
FJORD		7		3		3		2	15	19
INNOVA	3	8	2	1	2	3		1	20	44,5
USUS		5		2		2		1	10	12,5
WINTER		7		2		3		2	14	21
Total number of interviews within different groups of network stakeholders:		45		18		21		12	96	144,5

The data analysis was carried out as a “zigzag” process: moving between preliminary theoretical categories in a content analysis (Miles & Huberman, 1994) and more open category development from the data (Merriam, 1998). This type of analysis follows from the hermeneutical approach. The process of the data analysis included eight sequent milestones as follows. First, the coding procedures began during the interviews by creating an overview (drawing) and keywords for what seemed like the main time periods. Second, interviews and documents related to the INNOVA case, were systematically analysed by searching for patterns of phases. The following codes were used as factors characterizing the time-periods: focus and results, member recruiting/exit, engagement, the involvement of R&D and activity, triple helix relations, network management, resources/financing, “crises” and other important hampering/facilitating factors. Some of these factors were inspired by the literature, others by our interactions with the industry before and during the interviews. The preliminary analysis of the INNOVA case was presented and discussed by the research team. Third, all cases were analysed using one table for each case and the preliminary code list of factors was combined with the more open search for phases. This opened up the possibility to discover nuances and new patterns of phases. Fourth, the findings in each case were summarized in a new type of a working table (not included due to a large amount of data), showing the phases in the columns and the characteristic factors in the rows, to elaborate on the meaning of the content. Fifth, a cross-case analysis compared the similarities and differences in time periods and phases (i.e. name and number of phases, and the factors characterizing the phases), and the factors leading to both were explored. Sixth, similar phases by comparing the phase names and content were calibrated. If phases had similar content/characteristics (e.g. on focus and results) across cases, the researchers co-constructed one name for that phase (e.g. “exploration” or “network establishment”). Seventh, during across-case analysis differences in innovation network journeys were discovered, and the category of crossroads was constructed. Major crossroads leading to greater changes in the development path were coded first. The work started as rather open interpretations and coding, then turned to the literature. Eighth, the critical factors leading to the crossroads were coded, starting with many alternatives. Then the critical factors were analysed in light of the theoretical framework that made it possible to group the critical factors into four main types (financing, organizing, management and relevant shared activities).

Findings

The across-case analysis revealed both similarities and differences in the network journeys when it comes to phases and crossroads. The networks vary in terms of the duration of their participation in the Arena Programme. However, their development does not only depend upon the programme; it is shown how they can take different paths both during and after the Arena period. A longer network lifespan usually means a larger number and variety of phases, but the length of a lifespan is not a determinant for the types of phases. The main phases and major crossroads of network journeys are illustrated in [Figure 2](#).

The figure above is descriptive, rather than normative. It includes the elements of phases and crossroads distributed over time. Time periods divide the network lifespan into sequential time intervals of a varying duration. Each period is described by a particular

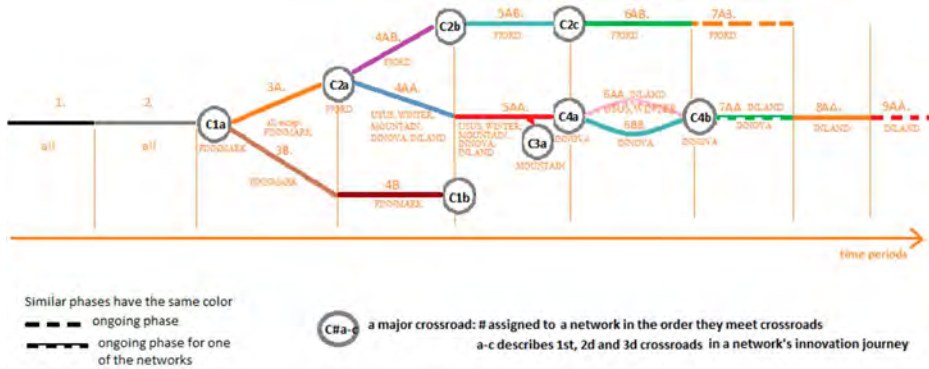


Figure 2. Innovation network journeys: phases and major crossroads

phase that a network goes through. There is a gradual overlap between the phases, but this is not shown in the figure due to the format. Sometimes the overlap seems designed, while at other times it is emergent. C_x illustrates the major crossroads where network journeys divide into different phases in the beginning of a period or during a period. The figure illustrates three major paths that characterize the development of the networks. The abbreviated name of a network that encounters its first crossroad is stated under the crossroad and under the path it takes. Thus, when the different phases are marked with a letter in addition to a number, e.g. 3A and 3B, this means two alternative phases in period 3. Since not all the networks go through the same phase in the same period, there are more phases than time periods. A dashed line indicates that a phase was still in progress at the time of writing. The recurrent phases are marked with the same colour.

Network journey as phases

The within-case analysis shows the constructed categories of phases in a particular sequence, with subcategories characterizing each phase. An overview of the phases and major crossroads describing the development of the networks is shown in Table 3.

The first striking observation is that most networks' first five phases are rather similar. However, already after the second phase, FINNMARK develops differently in period three (C1a) FJORD goes into a crossroad (C2a) after phase three and continues in a different phase in period four. Below, the phases are described using keywords from Antonacopoulou, i.e. what, how, why and who (2008, p. 118), starting with the most dominating development pattern.

- (1) *Exploration* phase, where all networks start their journeys. The practice (**what and how**) is characterized by exploring the cooperation idea and potential development. Participants develop strategic decisions by outlining vision and goals, and choose focal areas and types of stakeholders to involve. Network consciousness increases and participants begin to develop their commitment to the vision and the network. The balance of enthusiasm and scepticism about cooperation influences the duration of the phase, which ranges from between six months and two years. The application process for the pre-project, or the main Arena project, sums up the result of this phase.

Table 3. Phases and major crossroads.

Phase	1	2	3	4	5	6	7	8	9
Du-ration	0.5–2 years	1–2 years	1–2 years	1–2 years	0.5–2 year	Still ongoing (2->year)(2->)	Still ongoing (1-> 3 years year)		Ongoing
MOUNTAIN	Exploration 2002–2004	Network establishment 2004–2005	Development through specialization 2006	Maturation of network as a triple helix 2007–2008	Continued development and (preparation for) reorganizing 2008–2009 C3 a				
INLAND	Exploration 2003–2004	Network establishment 2005	Development through specialization 2006–2007	Maturation of network as a triple helix 2008–2009	Continued development and (preparation for) reorganizing 2009–2010	Development after reorganizing 2010–2012	Strategic refocusing 2013	Development through specialization 2014–2016	Continued development and (preparation for) reorganizing 2016–
FINNMARK	Exploration 2004–2005	Network establishment 2006	C1a Network re-establishment 2007	Development through expansion 2008	C1b				
FJORD	Exploration 2005–2007	Network establishment 2007–2008	Development through specialization 2008–2010	C2a Start-up NCE 2010–2012	C2b Taxiing 2012–2014	C2c Strategic refocusing 2015–2016	Development through specialization 2016–		
INNOVA	Exploration 2005–2007	Network establishment 2007–2008	Development through specialization 2008–2010	Maturation of network as a triple helix 2010–2012	Continued development and (preparation for) reorganizing 2013–2014	C4a Taxiing 2015–2016	C4b Strategic refocusing 2016–		
USUS	Exploration 2008–2009	Network establishment 2010–2011	Development through specialization 2012–2013	Maturation of network as a triple helix 2014–2015	Continued development and (preparation for) reorganizing 2015–2016	Development after reorganizing 2016–			
WINTER	Exploration Duration 2009–2010	Network establishment 2010–2011	Development through specialization 2012–2013	Maturation of network as a triple helix 2014–2015	Continued development and (preparation for) reorganizing 2016	Development after reorganizing 2017			

The outer context (**where and why**) is defined by common regional challenges and/or opportunities. The industry is fragmented with little tradition of cooperation across firms, and only rarely with R&D. The networks aim to become an important part of the strategic development of the industry and the region. With respect to actors taking the initiative (**who**), all except USUS (that is represented by the industry) as well as INLAND and FJORD (represented by a mix of a few private and public stakeholders) are led by public organizations. The initiator identifies stakeholders from industry, R&D and the public sector (triple helix relations) to secure the required representation for the Arena Programme application.

- (2) *Network establishment.* All cases go through the phase lasting between one and two years. MOUNTAIN, FINNMARK, INLAND, USUS, and FJORD are now part of the main Arena Programme. INNOVA and WINTER are in the pre-project phase and applying for the main project. **What and how:** The focus is on network development by getting to know each other and developing trust and commitment. The other main activity is competence development within and beyond the network. This implies a steep learning curve, acquiring shared experiences through boundary objects. **Why:** A critical factor is to focus on the vision and engage in relevant activities to achieve early results and secure network commitment. **Who:** An increasing number of businesses become members. Most networks have management continuity. R&D institutions become more involved, but often through research “on” and “for”, rather than “with” the industry, which implies premature relations. Management facilitates the development of relations between stakeholders. Effective board representation is required.
- (3) *Development through specialization (3A):* All networks except FINNMARK, which meets its first crossroad (C1a), enter this phase. **What and how:** This phase, which lasts between one and two years, is characterized by continued development and maintenance of relations and competence, as well as addressing the specialized tasks outlined in the application. Increasing engagement follows from relevant shared activities and achieved results. **Why:** Now, the networks are ready to concentrate on carrying out the chosen innovations and value creation, according to the strategy. All networks are in the Arena, meaning they receive more financing and network supervision. **Who:** To secure the engagement and results, network management works closely with businesses on progress and to connect them with other stakeholders within and outside the network, as well as to identify success factors. The number of network members is growing or mildly fluctuating.
- (4) *Maturation of the network as a triple helix (4AA):* Prior to period 4, the second crossroad (C2a) splits the previous 3A journey into phases 4AA and 4AB (described below as FJORD’s journey). Phase 4AA continues the planned journey path. Five networks (USUS, WINTER, MOUNTAIN, INNOVA and INLAND) went through this phase, which lasted between one and two years. **What and how:** Continued maintenance of network relations and competence development. The main emphasis is on the implementation of ongoing innovations and initiation of new projects (including increased engagement of R&D). The networks are involved in knowledge dissemination (e.g. open conferences) beyond their regions. Detailed planning of the exit strategy takes place (USUS started earlier), exploring opportunities for new funding, organization, activity and securing commitments to continue. **Why:** Relations

between the industry and R&D has become tighter, and shared projects take place. The exit strategy becomes crucial, as they need to prepare finalizing the Arena period and prepare for the next step. **Who:** Management is results-oriented, proactive and follows up with the innovations at the network and company levels. The networks have achieved either partial or strong engagement of R&D representatives that do research for, and with the industry.

- (5) *Continued development and (preparation for) reorganizing (5AA):* The five networks that have gone through 4AA phase also go through 5AA, which lasts between six months and two years. **What and how:** The networks sum up the results; two reorganize. All apply for NCE (MOUNTAIN does not submit the application they worked on), but are rejected. All finalize ongoing innovations. The implementation of Arena exit strategies begins, indicating that they are preparing to reorganize. All networks (except MOUNTAIN) demonstrate high engagement and willingness to maintain the networks. Little engagement from the leading companies leads MOUNTAIN to a gradual exit (C3a). USUS's reorganization takes the form of a merger of the network and the regional destination marketing organization, while INLAND becomes a development department of destination marketing organization. INNOVA only had four years in the programme, and finishes with significantly less funding, which hampers new activity and gradually reduces network's speed, leading to crossroad C4a. **Why:** In addition to preparing for their own future existence, the networks must complete the Arena project. **Who:** Applications imply the high involvement of the triple helix stakeholders, and management (including board) in particular.
- (6) *Development after reorganizing (6AA):* Three networks (USUS, WINTER and INLAND) enter this phase, while INNOVA takes a detour through phase 6BB after crossroad C4a. All have finished the Arena Programme. **What and how:** WINTER and USUS's second, and INLAND's first NCE applications are rejected, later USUS and WINTER submit their third NCE application without success. Both USUS and WINTER continues implementing innovations and starting new ones, including working with R&D projects (ongoing phase), mainly with regional financing. Based on the regional funding, INLAND continues project work but also builds its social capital, a process that is related to the strategic and membership changes during reorganization.

INNOVA's journey diverges along one phase: *6BB, taxing*². **What and how:** INNOVA sustains some activities (network gatherings, conferences), but it continues to search for project financing. This takes resources, and occupies the main focus. **Why:** Due to very little financing, it has few new relevant activities including development projects, and little management resources. All stakeholder engagement and results drop. The phase ends by entering a new crossroad, C4b. **Who:** Mostly management, including the board with the observers (public organizations). The network can be described by a rather top down approach.

- (7) *Strategic refocusing (7AA):* INLAND and INNOVA have entered the phase. **What and how:** INLAND refines the network's strategic areas and starts several big projects. INLAND is influenced by an unexpected change of destination marketing organization's leadership that threatens the engagement of network stakeholders. For a time, INLAND experiences a lack of network management. INNOVA gets a larger long-term regional financing and becomes a pilot getting access to some of the activities in the national

Arena management programme. Later in the phase, they delivered their third NCE application without success. After getting the regional financing, they start a new strategy process to develop new goals and activities. Management also sees the different needs of the ambitious old-timers and many newcomers, informally they reorganize activities into basic and advanced with partly separate activities. Another form of reorganizing is workshops within specific focuses (e.g. food, culture, wildlife); and growth of the management team that now includes sub-region leaders. **Why:** INLAND needs to sharpen its strategy in order to meet the needs of the industry and to continue with the second term of regional financing. INNOVA needs to re-engage the members and revitalize the network after two increasingly critical phases. Due to the reorganizing, this phase has similarities with phase 5AA for INNOVA. **Who:** Both networks can be characterized by a combination of top down and bottom-up processes.

- (8) *Development through specialization (8AA):* Once stabilized, INLAND continues into this phase being similar to phase 3A. There is a growth in the management team. Several projects have gone from the development to the marketing and implementation stage. A difference from 3A is that the engagement of the R&D actors is lower. The phase duration is two years.
- (9) *Continued development and (preparation for) reorganizing (9AA):* INLAND enters a phase similar to 5AA, which indicates that they are in a repeated track (pattern). They continue project implementation and plan to reorganize by bringing in more partners, as well as engaging R&D. A new Arena application based on the extended organization form is rejected. INLAND continues its work and start planning for the next three years' period.

FINNMARK'S innovation journey

Network re-establishment (3B): In period three, FINNMARK takes another path after struggling with the establishment of a proper strategic platform. **What and how:** FINNMARK revises the strategy, re-builds relations, concentrates on the strategic platform and hires a new network manager. Innovation level is high. **Who:** Management changes again at the end of the phase, meaning that FINNMARK now engages its third manager. Although the membership decreases to the core stakeholders, which is the steering group, it still represents the triple helix.

Development through expansion (4B): **What and how:** A foresight is done. With the new strategic platform, FINNMARK re-establishes the business memberships and triple helix relations. FINNMARK applies to both the Arena (for two extra years) and the NCE programmes without success. **Who:** Key initiators from the pre-phase are re-engaged as well as the third manager and board members, and network members expand to nearly 70. The phase goes over into a new crossroad (C1b) that terminates the network journey due to the rejection of both applications.

FJORD'S innovation journey

Start-up NCE (4AB): This phase, has so far only taken place for FJORD. **What and how:** FJORD achieves this status after only two years in the Arena Programme, so ongoing

projects and activities from the Arena period continue alongside with a strategic refocusing and an acuminated focus on smaller experience-based firms. FJORD develops trust and commitment to new goals (as in *network establishment* phase). **Why:** Gaining access to NCE increases the network's basic financing for up to ten years and membership requires financial contributions to FJORD. Some of the smallest firms find it expensive and exit, while new experience-based firms are recruited. **Who:** Both ongoing projects and the entering of a new programme requires close contact between network management and businesses. FJORD changes management in this phase.

Taxiing (5AB): Another crossroad has taken place (C2b) for FJORD where it enters a somewhat similar phase as INNOVA in period 6 (but for other reasons). **What and how:** The network experiences several management turnovers affecting the focus and leading to a decreased firms' engagement. It is challenging to keep up network activities and to get member up to speed on the activities. However, planned activities continue unaffected by the lack of management activity, as they are organized as subprojects. FJORD succeeds in including tourism in the region's research fund, which marks the start of increasing R&D activities. **Why:** FJORD enter this phase due to several changes in management and it results in a critical NCE programme evaluation, which leads to a new crossroad (C2c). **Who:** Many network members report little contact with network management.

Strategic refocusing (6AB): The phase has similarities with phase 7AA. **What and how:** A new strategy is developed and the focus area is sharpened to smaller-scale, activity-based tourism. **Why:** The network needs to handle the negative situation from phase 5AB "taxiing". **Who:** There is more contact between network members and management to involve all stakeholders in the process of outlining its vision and goals and to choose priorities. FJORD hires a fourth manager when starting this phase.

Development through specialization (7AB): It is reminiscent of the phase that FJORD went through in period 3, they seem to have returned to a more planned path and work with the specialized main tasks outlined in the previous phase. The phase is ongoing and as they are getting closer to the exit of the NCE programme (2019) different exit strategies, such as applying for the national regional development programme Global Centres of Expertise (that can follow the NCE programme) or becoming a regional product development organization, are explored.

Crossroads in innovation network journeys

Participation in the Arena Programme requires a designed development plan, but the networks are also exposed to emerging exogenous and endogenous factors.

Crossroads can happen quickly or be accumulated results. Some crossroads change the direction of the journey; others influence the pace of network development. The patterns observed in the data have been constructed into six subcategories of crossroads. First, the crossroads that accelerate the planned innovation network journey or elevate its ambitions are the "door-openers". Those that slow it down or lower its ambitions are the "setbacks". Second, both types can have major, minor or medium degrees of influence. "Major" crossroad is a significant change to the planned journey (shown in [Figure 2](#)). These are briefly described below. "Minor" crossroad is a factor or a process that slows down or speeds up the pace of the journey, while "medium" can be a single event that significantly changes the pace or the sum of "minor" crossroads that have accumulated over a period of time.

Table 4. Crossroads and critical factors.

Subcategories	Door-openers		Setbacks	
	Type of critical factors	Network examples ^a	Type of a critical factors	Network examples
Major	Financing and shared activities	Getting financing: FJORD got NCE in 2009 (C2a); INNOVA got larger regional financing in 2016 (C4b).	Lack of financing	Rejection of application for financing: FINNMARK got neither NCE nor an extension of Arena in 2009 (C1b).
	Management and shared activities	Strategic refocusing and new management: FJORD in 2015–2016 (C2c).	Management problems Management turnover and reorganizing Reduced shared activity and organizing Lack of financing, reducing management and shared activities	Management turnover accumulated from minor and medium setbacks in 2012/2013–2014 and a critical programme evaluation in 2015–2016 in FJORD (C2b). FINNMARK in 2007(C1a) Writing NCE application and exit strategy, where engagement drops: MOUNTAIN in 2008 (C3a). Medium setbacks accumulate into major: INNOVA in 2015 (C4a).
Medium	Financing	Getting the Arena application accepted: MOUNTAIN in 2004, INLAND in 2005, FINNMARK in 2006, FJORD in 2007, INNOVA in 2008, USUS in 2010, WINTER in 2011; getting an extension of Arena: MOUNTAIN in 2007–2008; INLAND in 2008–2009; INNOVA in 2011; USUS in 2013–2014; WINTER in 2014–2015; Getting regional financing: INLAND in 2010.	Lack of financing	Rejection of NCE applications: INLAND in 2009, INNOVA in 2013 and 2014.
	Organizing	Becoming a department of DMO: INLAND in 2010; Merger of network and DMO: USUS in 2016; Division of the members into: basic/advanced in USUS in 2013, geographically sub-networks in ALV in 2014; both in INNOVA 2016–2017 Recruitment of members from new geographic areas: INNOVA in 2015–2017, WINTER in 2014–2015.	Organizing	DMOs in centre, not focused on firms, problems with engagement of firms: MOUNTAIN in 2004.
	Shared activity	Application writing: for NCE in INLAND in 2009, for Arena in INLAND in 2016; Competence and product innovations: INNOVA in 2007–; Marketing communication innovations: INNOVA in 2010–2011; Conference becomes national: INNOVA in 2015; Strategic foresight: FINNMARK in 2008; Product innovations, international marketing innovations and charter: WINTER in 2012–2016; International project: WINTER in 2016.	Lack of shared activity	International marketing: INNOVA in 2010–2011; Few relevant, and one unsuccessful, projects: INNOVA in 2013–2014; International sale focus criticized for being too commercial, taking the role of the regional DMO (certain conflict), and not enough competence development for firms (by management): WINTER 2011–2012

(Continued)

Table 4. Continued.

Subcategories	Door-openers		Setbacks	
	Type of critical factors	Network examples ^a	Type of a critical factors	Network examples
Minor	Financing	Smaller development projects: all; Larger regional: USUS in 2016; WINTER in 2016).	Lack of management	Failure of the DMO leadership leading to the lack of network management: INLAND in 2013; Management turnover: FINNMARK in 2006, 2007, 2008. Rejection of the Arena application: WINTER in 2010; NCE rejection: WINTER in 2015, 2016 and 2017, INNOVA and USUS 2017.
	Management	Management shift: INLAND in 2007; Extension of management: INNOVA in 2017).	Lack of financing	
	Organizing	Involvement of strategically important stakeholders in the board: USUS in 2009, INLAND in 2004, FINNMARK in 2007–2008, INNOVA in 2008, WINTER in 2010; Reduction of board members: WINTER in 2015.		

^aExamples are followed by a number of a major crossroad if critical factor(s) led to it.

Eight major crossroads that change the direction of the path in an individual network journey are discovered. These crossroads describe larger changes in the development paths of four networks: FINNMARK, FJORD, MOUNTAIN and INNOVA. The first major crossroad (C1a), where FINNMARK takes another path, is caused by the network's inability to continue development in its current state and thus the emergent need for a strategic turnaround and new management. Preceded by a positive turn in network development, the FINNMARK's second crossroad (C1b) is caused by the rejection of its applications for an extension of the Arena period and NCE, so the network is quickly ended. The third crossroad (C2a) describes the split where FJORD becomes part of the NCE Programme with external long-term financial opportunities and growing ambitions. The fourth crossroad (C2b) in FJORD's journey is caused by management turnover and the critical programme evaluation. Dealing with this situation leads to the fifth crossroad (C2c) and the network goes back to following a planned journey. The sixth crossroad (C3a) leads MOUNTAIN to gradually exit due to a lack of engagement to continue after the Arena Programme. The seventh crossroad is caused by the lack of financing and, therefore, less management and relevant shared activities (C4a) in INNOVA; just after the Arena period its engagement and activity was high, but this decreased as ongoing projects finished and few new ones started. The eighth crossroad (C4b) gives new hope for INNOVA, as long-term regional financing is granted.

Furthermore, there are at least four main types of critical factors leading to crossroads, i.e. the presence or lack of financing, management, shared activities and proper or improper organizing. The main subcategories of crossroads and the critical factors leading to them are systematized in [Table 4](#).

Table 5. Innovation journey and the innovation network journey.

	Innovation journey (IJ)	Innovation network journey (INJ)
Similarities	<ol style="list-style-type: none"> 1. Maps how the process unfolds. 2. Defines the process as complex and heterogeneous, influenced by many patterns (IJ) or crossroads (INJ) that stimulate or slow down the development (e.g. management). 3. Collective effort of considerable duration. 4. Innovation processes in both types of journeys are dependent on external financing. 	
Differences	<ol style="list-style-type: none"> 1 - Author's goal is to map how innovation develops. 2 - Often a single innovation/innovation project. 3 - Cooperation within a corporation or with some other corporations. 4 - Three development periods, including 12 common elements that pertain to one of the periods. 5 - 10. Purposeful development towards implementation and end of journey (project completion). 	<ol style="list-style-type: none"> 1. Author's goal is to map how a network develops and drives innovation. 2. Several overlapping and consecutive innovations (subprojects for most firms, or selforganized within firms, sometimes across some firms) and other activities (network development, competence development, R&D, spin offs, value creation). 3. Cooperation with several other firms, R&D and public facilitating bodies, some also with other networks. 4. Journeys of 9 periods (can become more), with 11 types of phases. Six types of crossroads, 3 door-openers (positive) and 3 setbacks (negative), with major, medium or minor degrees of influence. Crossroads caused by 4 main critical factors that do not necessarily pertain to specific phases. 5. Purposeful development towards sustainment to secure continuous innovation, value creation and competitiveness of the firms and region, including the triple helix innovation system.

- (1) *Financing* has subcategories of getting financing or rejection of application for financing. The degree of influence depends on how large and long-term the financing is, but also on the network's overall situation. Being accepted into a programme also implies status and a network support system. In addition, networks apply for financing related to concrete projects, sometimes together with other networks, with R&D or other actors.

Money is important, money is power, money is essential as a catalyser. Actors want to play with those who have money, ... a proper amount of money ... Then the money has to be predictable, so you need an appropriate framework. I believe that this is one of the NCE's advantages, it has a ten-year timeframe ... This predictability has been important, particularly in regard to the recruitment (FJORD, supporting organization).

- (2) *Management* has at least the following subcategories: lack of management, management turnover and management failure/distrust. Change of management can become a setback; it takes time to develop relationships and trust and orchestrate networks and innovation processes. When it happens repeatedly, it can be devastating.

It is obvious that the best would have been to have one (network manager) all the way. But that is not how it was. So, yes, it is an incredible important function ... it means very much to avoid changes along the way. One starts a bit on scratch again, so to speak (FINNMARK, business member).

- (3) *Shared activities* has at least these subcategories: courses, development projects, application writing, discussions, workshops, etc. Both short-term and long-term results are vital to engage networks stakeholders and show "what is in it for me". For that to take place, there must be organized shared relevant activities (both task and relation-oriented, formal and informal) at network gatherings and between gatherings. Both too few and non-relevant activities are problematic.

We have been very concerned to show the results continuously for the companies. It has been a sort of distribution, that we got tour operators to sell it, so that tourists are coming. The project did not get the fatigue that many projects get after some years ... They [the companies] see it is useful (WINTER, management).

- (4) *Organizing* has the subcategories of: overall organizing model, subgroup division (sub-projects, sub-networks, sub-themes), merger, board membership, membership recruitment vs exit, and describes network (trans)formation that opens up new opportunities or hampers planned development. This category is mainly inherent to early network development (organizing) or upon completion of a long-term innovation programme (reorganizing). Our data has not demonstrated this category as a major crossroad.

If we get the NCE, that is great, but the future of USUS does not depend on it. We need to have USUS as solid as rock. ... In December 2015, Visit Sørlandet decided to go for a new strategy where USUS' platform is like the new strategy ... our new name is USUS AS, and going from Visit Sørlandet being the project owner of USUS, it is now the other way around: USUS AS is the project owner of Visit Sørlandet AS. So, Visit Sørlandet is now more like the marketing department (USUS, management).

USUS is the only network that – apart from its disappointment related to NCE applications – has not demonstrated any setbacks influencing the pace or direction of its journey. The

reason seems to be the planning of the Arena exit strategy already in the “exploration” phase, and reorganizing the network’s platform and financing in a good time before completion of the programme.

Discussion

The empirical data and analysis suggest that the innovation network journey can be understood as a combination of phases and crossroads. The journeys are developed through a combination of designed and emerging processes and the paper has shown that there are four main critical factors leading to crossroads. The principal differences between Van de Ven et al.’s (1999) innovation journey and the innovation network journey developed in this study are summarized in Table 5 below.

Phases of the innovation network journey

Van de Ven et al. (1999) conceptualize the innovation journey as three development periods. However, up to nine periods in the innovation network journey have been found; all networks go through the first two phases, but then journeys start to split into different phases, thereby showing that journeys are not linear, designed and homogenous. The **initial period** of Van de Ven et al. (1999), unfolds in our study as the phases *exploration* (1) and *network establishment* (2), for all seven networks. Also, our study supports the point of life-cycle theory that organizing in the beginning has consequences for the network establishment phase and the innovation network journey as a whole. In particular, organizing was unsuccessful for FINNMARK, where the network struggled to develop its identity due to differences among its members and management turnover, and for MOUNTAIN due to putting destination marketing organizations at the centre rather than the firms. Like teleological theory, our study shows the importance of strategic planning and network funding. The complexity of the initial period of innovation network journey is high due to the cooperation of different types of stakeholders who seldom know each other, and lack a tradition of cooperation. Therefore, compared to a single innovation project described by Van de Ven et al. (1999), various activities are needed in innovation network journey, the continuity of which dilutes the clear boundary between one period and the next.

In most of our cases, the **development period** of Van de Ven et al. (1999) unfolds in the phases of *development through specialization* (3), *maturation of network as a triple helix* (4), and *continued development and (preparation for) reorganizing* (5). While maintaining the focus on continued relationships and competence building (Nilsen & Gausdal, 2012), *phase 3* demonstrates continued development (as in life-cycle theory) by increasing network activities as in Van de Ven et al. (1999) innovation proliferation, which results in increased member engagement. The teleological cycle of ongoing goal implementation, evaluation and occasional modification (planned and as a result of learning) takes place and continues into *phase 4*, since goals are often evaluated in order to define their appropriateness for extended programme funding. The programme continuity secured by the majority of cases is similar to the retention stage in the evolutionary theory. The study shows that it is first in this period R&D actors contribute in a larger degree to the innovation practices as expected by the Arena requirements, which

contravenes the “maturity stage” of the life-cycle stream when it comes to “the repeated and intensifying interactions” of innovation networks (Green et al., 2013, p. 126). It takes time, but the Arena period is almost over. *Phase 5* describes an increased focus on implementing the exit from the Arena Programme. Already in the **development period** described by Van de Ven et al. (1999), the network journeys begin demonstrating discrepancies: out of five networks that go through phases 3, 4, and 5, only four continue their developments (MOUNTAIN exits). FINNMARK’s and FJORD’s journeys demonstrate two new types of phases each, i.e. *network re-establishment* and *development through expansion* (FINNMARK), and *start-up NCE* and *taxiing* (FJORD).

The **implementation period** described by Van de Ven et al. (1999) is significantly different in our study due to the initial intention to develop and sustain the networks to boost the tourism industry in the regions based on the joint efforts of industry, public bodies and R&D. Although the work with the Arena exit shares some similarities with what Van de Ven et al. (1999, p. 54) describe as the “restructuring of organisational arrangements”, in innovation network journey the focus is on the network arrangements that will allow for the continuation of several innovation projects rather than only implement one. Therefore, the development that takes place after the implementation period is not elaborated on by Van de Ven et al. (1999). The innovation network journey contributes by describing the network sustainment as a complex, heterogeneous and less-linear development. Although three networks entered the *development after reorganizing* phase, (6AA), other phases, including some that had been observed earlier in other network journeys, were found (i.e. *strategic refocusing* [6AB, 7AA], *taxiing* [5AB, 6BB], *development through specialization* [3A, 7AB, 8AA], and *continued development and (preparation for) reorganizing* [5AA, 9AA]). These observations point at cyclic and less-sequential network development, in such similar to what has been argued about non-linear nature of innovation process. An interesting observation is that FJORD repeats one phase from its earlier development, and INLAND repeats two. Another observation is that FJORD is the only network that has gone through seven periods without entering the *maturation of network as triple helix* phase. Another difference is that the networks implement innovations during more than one phase.

The completion of the Arena Programme, described by the innovation network journey, points to three types of network developments: closing the network, becoming NCE, or development based on regional funding, which confirms the previous research findings of Arena networks (Flatnes, Fosse, Furre, & Henning Normann, 2014). While public financing is important, it is not the only critical factor; management, engagement and results are also important.

Crossroads and critical factors

It is not only after the Arena Programme that the network journeys start demonstrating variation in their paths and pace as described by the crossroads of innovation network journey. Minor crossroads influence the pace of development, and although they do not directly lead to the change of the journey’s path, they may accumulate into medium or major crossroads. This is similar to the point that many small incremental innovations over a longer time span can lead to a bigger change when recognized retrospectively (Djellal & Gallouj, 2015). Door-openers bring new opportunities and setbacks hamper development. Our category, “door-opener”, shares some similarities with Van de Ven

et al.'s (1999) category "shock", which is described as triggering the innovation journey in the initial period. However, door-openers, as well as setbacks, can take place in different periods of the journey.

Our study shows that financing is indeed the most crucial during the phases of *network establishment* and *continued network development*. However, the other three categories of crossroads may emerge during any phase. The study contributes to the existing literature by showing that crossroads caused by different critical factors can accumulate, thereby creating chain reactions:

It is critical for a network if not having visions or money or activities that allow you to work on development together. Plus, a network must be managed. No one takes responsibility on behalf of everyone else in a network. People are busy and there must be a facilitator. And during this period, we have lost the facilitator, you may feel that you are part of a network, but when it comes to specific network activities, it is very limited in a period when one is trying to secure the long-term existence of the network. (INNOVA, supporting organization)

The quote demonstrates the existence of such a chain reaction because of the absence of long-term financing followed by a lack of relevant shared activities that may lead a network to dissolve. Another chain reaction can be caused by management changes, especially if they happen repeatedly, leading to a decrease in relevant shared activities and trust, and to a quick or gradual decline in engagement and results. Similarly, a lack of relevant shared activities and firm engagement can be caused by unsuccessful organization when, for example, the local destination marketing organizations are given the role of key nodes and decide what to do (reduces relevance and engagement). However, specific door-openers can accumulate and significantly improve network results speeding up network development.

Conclusion

This article set out to explore what characterizes innovation network journeys and the critical factors influencing their dynamic development. First, a new concept – 'innovation network journey' – that consists of three main categories: phases, crossroads and critical factors, has been developed, which in sum contributes to a new understanding of network dynamics. Secondly, it has been shown that seemingly similar innovation networks can develop both similarly and differently. Thirdly, it was shown how innovation network journeys can be non-linear, as some phases can repeat (e.g. INLAND), and some networks can skip (e.g. FINNMARK) some of the characteristic phases. Fourthly, innovation network journeys are not only a matter of design; emergent changes and factors can facilitate or slow down the innovation processes in the networks to varying degrees. This is described by the six sub-categories of crossroads: door-openers and setbacks, where each can have a minor, medium or major degree of influence on the innovation network journey. It has been suggested that there are at least four critical factors leading to the crossroads, i.e. the present or lack of financing, management, organizing and shared activities – and sometimes these create chain reactions. Below the implications and limitations of this research are highlighted.

Theoretical implications

This study contributes to the field of network driven innovation, and particularly to the dynamics of innovation networks, where understanding of "the articulation between

the organized and emergent dynamics of networks and its impact on knowledge exchanges and innovation” is limited (Clegg et al., 2016, p. 277). Combining theoretical lenses of organizational change, process- and practice-based approaches and Van de Ven’s innovation journey, a new understanding of the dynamics of innovation networks with the main categories of phases, crossroads and critical factors has been constructed. It is within this combination the main contribution about the dynamics lays. In addition, the study contributes to the network change approaches built upon models of organizational change, especially the life-cycle model (Green et al., 2013; Sundbo, 2010) by highlighting that both designed and emerging patterns of network development do not only lie in the straight forward uninterrupted course of phases. Instead, an innovation network journey is exposed to both internal and external factors that can both change the speed and the direction of network development. While three main critical factors leading to crossroads in the innovation network journey, i.e. financing, management and organizing, have several similarities with the common elements of the innovation journey, the factor of *shared activities* addresses the process- and practice-based stand and adds to the factors discussed by the organizational change theories. Further, the study contributes to the process- and practice-based approaches by discussing the importance of brokering, facilitating interactions, shared activity and boundary-crossing “tools” (Fuglsang & Eide, 2013; Wenger, 2000). The relevance of using the model developed by Antonacopoulou (2008) in empirical analysis can be considered as methodological implications of the current research. The study brings new knowledge about how multiple communities across organizations can interact and become integrated, as actors and activities are found at different analytical levels of network gatherings and beyond, and moving between the levels and arenas is an important part of the dynamics. To our knowledge, this has not been much elaborated in network research, and needs further investigation. Finally, a somewhat different narrative about innovation journeys is proposed compared to that of Van de Ven et al. (1999) who focus on one innovation process. Instead, it is shown how innovation takes place in larger networks, where a number of interwoven innovation processes and activities happen simultaneously leading to spin offs and different innovation journeys.

Management implications

First, regional innovation networks as described here are vital to facilitate more radical cooperation and learning, and to co-construct innovations and value. Programmes like Arena are very relevant, however, three to five years’ duration of the programmes is often too short because it takes time to develop relations and competence needed to start working on innovations and value co-creation (i.e. a policy implication is that longer time-periods are preferable). Second, network managers and other facilitators should be aware of the processes and activities characterizing a particular phase in order to complete it and continue to the next one as planned. For example, taking and follow up initiatives, involving and activating important stakeholders as well as securing proper funding in the earlier phases are crucial. Third, since there are also emergent processes, network management needs to be cautious about potential crossroads and critical factors leading to them, in order to avoid setbacks and take advantage of door-openers. Forth, networks need to plan their futures (e.g. Arena exit strategies) early, and secure stable and predictable financing if they are to be sustained – this should be considered

an important part of “network health” (Nilsen & Gausdal, 2012). It is particularly important in experience-based tourism due to the dominance of SMEs with limited economic resources and time.

Limitations and further research

Embedded issues related to the innovation network journey need further research, i.e. how management facilitates phase-specific processes and activities like engagement and results, handles crossroads, and if certain strategies are better at securing the innovation network’s sustainability. Note that regional tourism innovation networks have been studied, and that the critical factors and degrees of crossroads can be different in other types of networks and in other industries. Due to the large number of cases, there was no space for thicker descriptions, which could have brought better illustrations of the phenomenon.

Notes

1. For more details, see <http://www.arenaclusters.no/the-arena-programme/>.
2. Refers to an aircraft’s movement on the ground before taking off.

Acknowledgements

This study could not have been done without the many informants willingly sharing their time and experiences, to them we are very grateful. Some of this research has been done as part of the Northern Insight programme, partly financed by The research council of Norway.

Disclosure statement

No potential conflict of interest was reported by the authors.

ORCID

Olga Høegh-Guldberg  <http://orcid.org/0000-0001-7404-8005>

Veronika Trengereid  <http://orcid.org/0000-0003-0952-1876>

References

- Aarstad, J., Ness, H., & Haugland, S. A. (2015). Destination evolution and network dynamics: New research agendas. In D. Chambers & T. Rakic (Eds.), *Tourism research frontiers: Beyond the boundaries of knowledge* (pp. 141–164). Bingley: Emerald Group.
- Ahuja, G., Soda, G., & Zaheer, A. (2012). The genesis and dynamics of organizational networks. *Organization Science*, 23(2), 434–448. doi:0.1287/orsc.1110.0695
- Alvesson, M., & Sköldbberg, K. (2000). *Reflexive methodology : New vistas for qualitative research*. London: Sage.
- Antonacopoulou, E. P. (2008). On the practise of practice: In-tensions and ex-tensions in the ongoing reconfiguration of practices. In D. Barry, & H. Hansen (Eds.), *The SAGE handbook of New approaches to management and organization* (pp. 112–131). London: SAGE.
- Baggio, R., & Cooper, C. (2010). Knowledge transfer in a tourism destination: The effects of a network structure. *The Service Industries Journal*, 30(10), 1757–1771. doi:10.1080/02642060903580649

- Kvale, S. (1989). *Issues of validity in qualitative research*. Lund: Studentlitteratur.
- Lundvall, B.-Å. (2013). Innovation studies: A personal interpretation of the state of the art. In J. Fagerberg, B. R. Martin, & E. S. Andersen (Eds.), *Innovation studies: Evolution and future challenges* (pp. 21–70). Oxford: Oxford University Press.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education. Revised and expanded from "case study research in education"*. San Francisco: Jossey-Bass.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: A sourcebook*. Beverly Hills: Sage.
- Ness, H., Aarstad, J., Haugland, S. A., & Grønseth, B. O. (2014). Destination Development. *Journal of Travel Research*, 53(2), 183–195. doi:10.1177/0047287513491332
- Newell, S., Robertson, M., Scarbrough, H., & Swan, J. (2009). *Managing knowledge work and innovation* (2nd ed.). Basingstoke: Palgrave Macmillan.
- Nilsen, E., & Gausdal, A. (2012). *The roles of orchestrator in innovative SME networks. The case of HealthInnovation*. Paper presented at the INBAM, International Network of Business and Management Journals, Valencia, Spain.
- OECD. (2005). *Oslo manual: Guidelines for collecting and interpreting innovation data* (3rd ed.). Paris: OECD.
- Pettigrew, A. M. (1997). What is a processual analysis? *Scandinavian Journal of Management*, 13(4), 337–348. doi:10.1016/s0956-5221(97)00020-1
- Pettigrew, A. M., Woodman, R. W., & Cameron, K. S. (2001). Studying organizational change and development: Challenges for future research. *Academy of Management Journal*, 44(4), 697–713. doi:10.2307/3069411
- Pfarr, C. (2006). Tourism policy in the making. *Annals of Tourism Research*, 33(1), 87–108. doi:10.1016/j.annals.2005.04.004
- Pittaway, L., Robertson, M., Munir, K., Denyer, D., & Neely, A. (2004). Networking and innovation: A systematic review of the evidence. *International Journal of Management Reviews*, 5-6(3–4), 137–168. doi:10.1111/j.1460-8545.2004.00101.x
- Powell, W. W., Packalen, K., & Whittington, K. (2012). Organizational and institutional genesis: The emergence of high-tech clusters in the life sciences. In J. F. Padgett, & W. W. Powell (Eds.), *The emergence of organizations and markets* (pp. 434–465). Oxfordshire: Princeton University Press.
- Quinn, R. E., & Cameron, K. (1983). Organizational life cycles and shifting criteria of effectiveness: Some preliminary evidence. *Management Science*, 29(1), 33–51. doi:10.1287/mnsc.29.1.33
- Schumpeter, J. A. (1934). *The theory of economic development*. Harvard: Oxford University Press.
- Scott, N., Baggio, R., & Cooper, C. (2008). *Network analysis and tourism: From theory to practice*. Clevedon: Channel View.
- Smith, K. G., Carroll, S. J., & Ashford, S. J. (1995). Intra-and interorganizational cooperation: Toward a research agenda. *Academy of Management Journal*, 38(1), 7–23. doi:10.2307/256726
- Sørensen, F., & Fuglsang, L. (2014). Social network dynamics and innovation in small tourism companies. In M. McLeod & R. Vaughan (Eds.), *Knowledge networks and tourism* (pp. 28–45). London: Routledge.
- Sundbo, J. (2010). *Public-private networks and services innovation in knowledge intensive services. A report of European case studies*. Retrieved from <http://css.ruc.dk/Publikationer/RR1005.pdf>
- Sundbo, J., & Hagedorn-Rasmussen, P. (2008). The backstaging of experience production. In J. Sundbo, & P. Darmer (Eds.), *Creating experiences in the experience economy* (pp. 83–110). Cheltenham: Edward Elgar.
- Sundbo, J., Sørensen, F., & Fuglsang, L. (2013). Innovation in the experience sector. In J. Sundbo & F. Sørensen (Eds.), *Handbook on the experience economy* (pp. 228–247). Cheltenham: Edward Elgar.
- Toivonen, M., & Tuominen, T. (2009). Emergence of innovations in services. *The Service Industries Journal*, 29(7), 887–902. doi:10.1080/02642060902749492
- Van de Ven, A. H., Polley, D. E., Garud, R., & Venkataraman, S. (1999). *The innovation journey*. New York, NY: Oxford University Press.
- Van de Ven, A. H., & Poole, M. S. (1995). Explaining development and change in organizations. *Academy of Management Review*, 20(3), 510–540. doi:10.5465/amr.1995.9508080329
- Wenger, E. (2000). Communities of practice and social learning systems. *Organization*, 7(2), 225–246. doi:10.1177/135050840072002

Paper 3

**Dynamics of network orchestrators' roles in innovation network journey:
a multi-case study**

5.3. Dynamics of network orchestrators' roles in innovation network journey: a multi-case study

Authors	Dorthe Eide, Veronika Trengereid, Olga Høegh-Guldberg & Kirsti Mathiesen Hjemdahl
Year	Forthcoming
Type	Empirical article
Status	Submitted to: International journal of innovation management on March 23, 2018

Dynamics of network orchestrators' roles in innovation network journey: a multi-case study

Abstract

This paper explores the nature and importance of orchestrators' roles in innovation networks and how they develop over time. Network dynamics and particularly orchestration of such dynamics over time, is an area with knowledge gaps. Inspired by the orchestration framework for networks suggested by Nilsen and Gausdal (2017), we have developed it further. We studied seven regional innovation networks all within the industry of tourism, which innovation network research has paid modest attention to. The study has a practice- and process-based approach to network, innovation and orchestration. The paper contributes by describing the nature of five main network orchestration roles, i.e. relational, HR, network organisation, knowledge and innovation where HR is developed as a novel role category of network orchestration. In addition, the paper demonstrates a nuanced picture of how and why orchestrator's roles change across the phases of an innovation networks journey due to being situated and dynamic.

Key words: orchestrator roles; innovation networks journeys; network orchestration; network management; innovation broker; knowledge broker; HR orchestration

1. INTRODUCTION

Network driven innovation is important for an organisations ability to compete and grow (Dooley and O'Sullivan, 2007; Sundbo et al., 2007) because they give members access to resources, new ideas and enhance knowledge transfers and cooperation (Chesbrough, 2011; Powell and Grodal, 2005; Powell et al., 1996). For this reason, network driven innovation is often a national policy tool. However, it is challenging to construct an innovative network environment since the ideas, perspectives and cultures of the different actors must be carefully woven together (Landsperger and Spieth, 2011; Fuglsang, 2008). Managing networks is one of the crucial success factors (Heidenreich et al., 2016; Landsperger et al., 2012). Recent research suggests there is a lack of knowledge about the dynamics of network driven innovation and how it can be facilitated (Clegg et al., 2016; Fuglsang et al., 2015). Network management is complex and dependent upon authority, trust and commitment (DeBresson and Amesse, 1991; Orton and Weick, 1990). The leadership is subtle and done by shaping overall conditions e.g. rules on activities and relationships and establishing shared values (Dhanasaj and Parkhe, 2006; Orton and Weick, 1990). It has been suggested that network management is described as orchestration (cf. Dhanasaj and Parkhe, 2006; Gausdal and Nilsen, 2011; Nilsen and Gausdal, 2017). Another knowledge gap is how network orchestration changes as networks develop, as there is little research taking a longitudinal perspective (Dhanasaj and Parkhe, 2006; Heidenreich et al., 2016). Nilsen and Gausdal (2017) is one exception, as they address some of these gaps by suggesting a theoretical framework on orchestrating regional networks using a life cycle model. The life cycle model is however, not always sufficient to embrace the complexity and nuances (heterogeneity) of network driven innovations because neither network development nor innovation processes are linear. Rather, innovation and network development processes, particularly in service and experience industries, are emerging, non-linear, complex and diverse (Hjemdahl and Aas, 2018; Jernsand et al., 2015; Sundbo and Gallouj, 2000). This might point at network driven innovation being sector-dependent, but also that there may be hidden innovation and less facilitated sides of innovations in most sectors.

This paper seeks to contribute to the ongoing theory development on network orchestrators' roles and practices. The research questions studied are: 1) *what are the roles of network orchestrators?* 2) *How do the roles develop over time?* By *network orchestrator* we mean how one or more persons facilitate the development and coordination of the network and its actors, resources, goals, processes, structures and results in order "to create and extract value from the network" (Gausdal and Nilsen, 2011, p. 587). We assume this involves different *orchestration roles* with tasks and relations. A main claim developed is that network orchestrators' roles are situated and dynamic during the network journeys. In line with Van de Ven (2017, p. 40) we believe that innovation processes «cannot be reduced to a simple sequence of stages or phases» that could equally well characterise all networks in similar context and time.

The paper mainly uses the practice- and process-based approach to network, innovation and orchestration (see e.g. Dhanasaj and Parkhe, 2006; Hurmelinna-Laukkanen, Olander, Blomqvist, and Panfilii, 2012; Marabelli and Newell, 2012) and a dynamic understanding of networks development (XX, forthcoming). Seven regional innovation networks within tourism are studied using a qualitative multi-case design. The tourism industry is chosen because it is one of the fastest growing industries, where innovation and collaboration is central

to success. In particular, the experience-based tourism appears to be very innovative (Sundbo et al., 2013), while the innovation model seems to differ from the ones dominating within technology and manufacturing industries. Initially we present a short review of the literature and describe our methodology. We then discuss and offer conclusions based on the findings presented.

2. THEORETICAL FRAMEWORK

The networks addressed are formal *inter-organisational innovation networks* (see e.g. Batterink et al., 2010; Hurmelinna-Laukkanen et al., 2012) defined as “a group of agents who interact with each other in order to generate innovation” (Gallouj et al., 2013, p. 4) through a number of simultaneous and/or consecutive network processes. More specifically, regional innovation networks (RIN), meaning that the geographic proximity is not as high as in local networks. *Innovation* we define as the exploration and exploitation of a new or significantly changed idea (OECD, 2005) through radical or incremental changes. To achieve the benefits of networking we assume that networks intermediators are needed and those who undertake such a task may have different roles and practices that change during network development. In the following, these assumptions are addressed from a theoretical perspective.

2.1 Network orchestrator

The intermediary in network governance is described as a hub organisation (e.g. Dhanasaj and Parkhe, 2006; Müller-Seitz, 2012). A hub organisation is one that takes a leading role both in creating and managing a network using its power and central position in the network usually gained by its characteristics and advantages (Dhanasaj and Parkhe, 2006). Both single firms and public organisations may take the hub role. In small- and micro business networks, there is seldom anyone to take on such a “hub” task (Nilsen and Gausdal, 2017). A lack of tradition for inter-organisational collaboration can make it even more difficult to establish such collaboration by shared governance, so third-party intermediary is not uncommon when establishing an innovation network. Particularly high complexity networks seem to benefit from having an intermediary to foster trust and commitment, increase social interaction in the network and create, distribute and acquire knowledge more efficiently (Heidenreich et al., 2016).

Inter-organisational networks are vulnerable and often viewed as loosely coupled systems (see e.g. DeBresson and Amesse, 1991; Orton and Weick, 1990) because of their fluidity, complexity and the socially constructed organisational structures. A central challenge of networks intermediators, is their lack of formal authority. This is why some choose not to term them ‘manager’ (Batterink et al., 2010; Dhanasaj and Parkhe, 2006; Hurmelinna-Laukkanen et al., 2012). We term the networks intermediary ‘network orchestrator’ as several others have done (e.g. Dhanasaj and Parkhe, 2006; Nilsen and Gausdal, 2017; Paquin and Howard-Grenville, 2013). Though other terms to describe a network intermediary are common: “innovation broker” (Batterink et al., 2010), “network manager” (Heidenreich et al., 2016; Landsperger et al., 2012) or “network entrepreneur” (Burt, 2000). In the practice-based approach and the “network as community” stream of research, the terms “community coordinator” (Wenger, 2000) and “community leader” (Wenger et al., 2002) are used. Orchestrating knowledge across network members as well as within the member

organisations tends to be vital to enact network driven innovation (Batterink et al., 2010; Dhanasaj and Parkhe, 2006). However, the simple instalment of an orchestrator is no guarantee of success (Heidenreich et al., 2016, p. 68). There is a need for coupling both the goals and the activities in the network and the member organisations. There are different approaches to orchestration: it can appear as being done by one person (focused approach) or as distributed involving more actors (see e.g. Groon, 2002; Benson and Blackman, 2011). A preliminary framework of orchestrator's roles is presented below.

2.2 Orchestrator roles

A role is generally described as a set of (expected) behaviours of people who occupy an organisational position (Graen, 1976). It is not only decided by the structured rules and responsibilities (institutionally prescribed), it can also be largely socially constructed (Stryker and Statham, 1985). Van de Ven et al. (1999) build on this when arguing that the roles of innovation managers are both prescribed and socially constructed. The management literature has been interested in roles and what managers do instead of what they are (see e.g. Johnsen, 2002; Mintzberg, 1989). Nicolini (2012) do however criticise such a mainly descriptive presentation because it lacks an explanation of why and when these roles occur. In our study, the term role is used to describe a collection of tasks, relations, processes and actions performed by the networks orchestrator(s), being one person or a team sharing roles. Nilsen and Gausdal (2017, p. 7) suggest four main network orchestrator roles built on literature (Dhanasaj and Parkhe, 2006; Gausdal and Nilsen, 2011) and own case-study: knowledge broker, innovation broker, network entrepreneur and network leader. A short description of these roles follows below.

Knowledge broker: Soekijad et al. (2011) argue that brokering and buffering is the most useful strategy for achieving multilevel organisational learning. All the subcategories of activities and processes are linked to managing knowledge mobility, which is important in innovation networks (Dhanasaj and Parkhe, 2006). Nilsen and Gausdal (2017) and Wenger et al. (2002) label this role 'knowledge broker', since the orchestrator often provides "a bridge" between knowledge boundaries. The focus of this role is to support knowledge creation and learning. This can be done by facilitating relationships, conversations and the sharing of local knowledge (von Krogh et al. 2000). Nilsen and Gausdal (2017) address five main subcategories: a) managing knowledge mobility, b) knowledge activation, c) boundary spanning, d) translation and e) facilitating transactions.

Innovation broker: The innovation challenge is mainly about how knowledge is combined and transformed into innovation and not about the available amount of knowledge and information (Newell et al., 2009). Both Nilsen and Gausdal (2017) and Dhanasaj and Parkhe (2006) label this role innovation broker. The latter distinguishing between orchestrating knowledge mobility and innovation appropriability and thereby acknowledging that capturing the profits from innovation processes requires something more than just managing knowledge mobility. The focus of this role is to facilitate innovation. Nilsen and Gausdal (2017) suggest nine subcategories: a) recognize and commercialize innovative ideas, b) facilitate transactions, c) manage innovation appropriability, d) articulate demands, e) innovation process management, f) link complementary actors, g) handling conflicts between network participants, h) focus on enhancing transparency and i) facilitating interactions between the participants.

Network entrepreneur: Dhanasaj and Parkhe (2006) emphasize stability as a factor in helping member firms to capture the profits from innovations. Implying that unstable networks where the members leave or only interact with a clique within the network will have lower ability to benefit from innovation in the network because the trustworthiness needed for learning and co-designing practices is missing (Lorenzoni and Lipparini, 1999). At the same time, loose coupling can be beneficial for innovation processes. The role demonstrates how an orchestrator acts as an important “network entrepreneur”, the term borrowed from Burt (2000). This role focuses on the establishment and (re-) construction of the network (members, relations) and its infrastructure. Nilsen and Gausdal (2017) suggest five subcategories: a) building the network infrastructure, b) manage network stability, c) compose the network, d) maintaining a large and heterogeneous network and e) set up coordination mechanisms. In sum it seems as development of relations and trust is not main focus, but identifying potential actors to participate and developing the framework for the network is.

Network leader: This role is built on the assumption that inter-organisational networks is an organization that requires leadership like other organizations in order to mobilize and direct network resources, actors and their activities (Müller-Seitz, 2012, p. 430). Due to being loosely coupled with no hierarchical control (Dhanasaj and Parkhe, 2006) and members that have strong bonds to their home organisation (Nilsen and Gausdal, 2017), building a shared identity and social capital becomes important for successful leadership and network development (Müller-Seitz, 2012; Soekijad et al., 2011). One can argue it has most overlaps with the symbolic frame of Bolman and Deal (2008). This role involves eight subcategories according to Nilsen and Gausdal (2017): a) empowering network members, b) possess and extend social capital, c) strategy development, d) managing network health (e.g. do evaluations and develop recovery strategies when failing), d) impose a common vision, e) develop a written constitution, f) construct an intergroup relational identity and g) strategic management. In sum, we find that most of these subcategories are related to strategy in firms. In addition, developing trust and social capital seems included in the concept social capital as described by other as well (see e.g. Field, 2003), however it is little explicitly elaborated (see e.g. their table 1).

When comparing the four roles, we find that orchestrating relations appear in different roles, which makes the categories partly overlapping and the framework less consistent when to apply in data analysis or in practice.

2.3 Network journeys development and orchestrator roles

A more recent attachment to the study of the network orchestrator’s roles is the life-cycle perspective (e.g. Currie et al., 2011; Fosse and Normann, 2017; Nilsen and Gausdal, 2017). This perspective acknowledges that the orchestrator’s roles change during the networks life span (i.e. is dynamic) and explores which roles are important at the different stages of network life-cycle. The common stages are: emergence, growth, sustainment and decline (some have maturity and sustainment as the last two stages). However, it seems to be a simplification to assume such a generic homogenous innovation (and network) development, when it is indeed recognised to be a “*messier and more complex progression of events*” (Van De Ven et al., 1995, p. 23). We share this latter assumption, arguing that one cannot take for granted that networks develop as suggested in the life-cycle model, it must be studied empirically as it can be context and situation dependent. This is why studying more than one network case can contribute to our understanding of orchestration processes and their dynamic development, it brings forward nuances.

Inspired by the life-cycle model, Nilsen and Gausdal (2017) use four types of phase: emergence, decline, growth and sustainment when addressing orchestrator roles in their case, but does not find the life-cycle model ideal. In regards of roles, they find that the only orchestrator role important across all phases is ‘network leader’. The roles ‘network entrepreneur’ and ‘innovation broker’ are important in two phases, the former in the emergence and growth phases and the latter in the growth and sustainment phases. The role ‘knowledge broker’ is mainly important in the emergence phase of a network, this we find very surprising given the complexity of innovation and network development. This is also surprising when looking at the literature on innovation journey where roles “served as checks and balances on each other” (Van De Ven et al., 1995, p. 104), showing that there can be a relationship between roles where the presence of one role often requires the presence of another role (Angle and Van de Ven, 2000; Van de Ven et al., 1999). We see no reason why innovation in inter-organisational networks should be less complex than within organisations, the opposite seems more reasonable. We therefore argue that the innovation network journey can be more complex and less linear than the stages of life-cycle models.

Network and innovation practices vary across industries, but also within an industry, which calls upon more multifaceted and open approaches involving different degrees of designed and emerging elements (Eide and Fuglsang, 2013). XX (will be included) combines literature from the organisational/network change approach (cf. Green et al., 2013), process- and practice-based approach (cf. Antonacopoulou, 2008) and innovation journey (Van de Ven et al., 1999), when studying innovation network development over time. XX (included later) shows similarities and differences in periods, phases, challenges and overall journey patterns and that there are more than four phase types. The most usual phases found are exploration, network establishment, development through specialisation, maturation of the network as a triple helix, continued development and (preparation for) reorganising and development after reorganising.

3. METHODOLOGY

The study is situated within the interpretive-constructionist paradigm because we share the assumption that humans’ situatedness in context, relations and time, is important for meaning constructions and practice (Alvesson and Sköldbberg, 2000; Lindberg et al., 2014). A hermeneutical research strategy is chosen. This means that our second order sense making (Spradley, 1980; Steyaert, 1995) is built on informants first order sense making, but also on our fore-understanding from literature and own competence, and reflections. Our aim is to develop knowledge related to the research questions, and partly building on and developing the framework suggested by Nilsen and Gausdal (2017). An interpretive qualitative multi-case design was chosen because it is suitable for explorative studies (Flyvbjerg, 2001) and makes it possible to compare cases and increase the understanding e.g. of recurrent activities and nuances, and the validity. We seek to describe what roles are practiced and how they vary in dominance across network journey, as well as explain the patterns. Both descriptions and explanations are argued important for knowledge development in practice-based studies (Nicolini, 2012).

3.1 Data collection

Four main criteria were used when choosing networks, all should: 1) Have innovation as a main task. 2) Involve firms, public facilitating organisations and R&D institutions, because previous studies (e.g. Etzkowitz and Leydesdorff, 1997) have shown that triple helix relations facilitate innovations. 3) Be regional innovation networks. 4) Mainly be within tourism. We chose tourism because it is among the fastest growing industries in the world, where innovation is central to competitiveness, but so is also cooperation (Alsos et al., 2014). Another reason is that we wanted to study an industry different from Nilsen and Gausdal (2017) who study a technology-based innovation network closer to the Science, Technology and Innovation model (STI), where actors often have higher formal education. Tourism unites firms that produce services and experiences (cf. experience economy, see e.g. Pine and Gilmore, 2011) which can reveal other innovation practices, more like what has been described as the Do, Use and Interact (DUI) mode of innovation, where actors have varied education levels and a high utilisation of seasonal employees (see e.g. Jensen et al., 2007). 5) Possible to compare. We found that networks that have participated in the Norwegian regional development policy programme 'Arena' fulfil all the criteria's. Seven networks from the tourism industry had participated in the Arena program when we started our study, we included all of them. The program gives the networks guidelines for their development and rather similar managerial and financial support for 3-5 years.

Data collection is triangular, involving interviews as the main method, supplemented with documents and some observations and interactive research. Observations were only possible in networks still operating and carried out in four of the five to varying degrees. In USUS, INNOVA and WINTER authors also have done other research for and with the networks. In USUS and INNOVA one of the authors has participated in steering group meetings. Members of INLAND and INNOVA were interviewed at two timepoints, 5 or 3 years before the main round of data collection. The informants in each case were strategically chosen to represent all four main stakeholder types, i.e. firms, public organisations, R&D and the hired network orchestrators. Both members and non-members of the steering group have been interviewed. Firms should be from varied sectors and subsectors, with most of them within nature-, culture- and/or food-based experiences. In some networks, the formal main orchestrator changed during the network journey and we tried to involve as many of them as possible to cover as many periods as possible. In sum 96 interviews were conducted, equal to about 144,5 hours. The average length/duration of an interview was 1,5 hours, some were much longer and a few a bit shorter. They were conducted face-to-face or using skype with video, with exception of a few by telephone.

Table 1: Overview of informant types in each case

Cases \ Stakeholder groups	MOUNTAIN	INLAND		FINN-MARK	FJORD	INNOVA		USUS	WINTER	Number of interviews in each stockholder group
Business members	3	3	5	4	7	3	8	5	7	45
Network orchestrators	2	1	3	2	3	2	1	2	2	18
Public or other supporting organisations	2		2	4	3	2	3	2	3	21
R&D	1	1	2	2	2		1	1	2	12
Number of interviews per network	8	17		12	15	20		10	14	96

An interview guide was used, based on literature and own experience with networks, the interviews were semi-structured.

3.2 Data analysis and quality

The main analytical level studied and analysed is the network. The analysis was inspired by Braun and Clarke (2006) six-stages approach: 1) familiarisation with the data, 2) generation initial code, 3) searching for themes, 4) reviewing themes, 5) defining and naming themes, and 6) final reporting. Stage 1 was performed for all networks individually, stage 2 was first done for case INNOVA and then distributed to all researchers, and then step 3-6 was done for all the networks going back and forth from the analysis of the individual network and the networks as a group. Stage 6 resulted in Table 3 and Figure 2, see also appendix 1, for details. Nilsen and Gausdal (2017) framework was used as a base for structuring the initial codes or themes related to orchestrators roles. More open coding followed and led to the discovery of new codes. We used the described periods and phases of each network journeys presented and discussed in XX (include later) when analysing roles in the network developments. We have moved between the initial codes and the larger data-material, like a hermeneutical move between part-whole. Mainly it was the hired network orchestrators and manager of the steering groups, and some public facilitators, being able to attribute orchestrator activity/roles to periods. Note that the word ‘management’ was used in the interviews and not the term orchestrator.

On quality: One author has been the hired formal main network orchestrator in case (include name later), but has not been involved in data collection or analyses of that case. The findings have been presented and discussed with respective hired formal orchestrators in six networks to reduce misunderstanding and thereby supplement the data and increase the validity. The triangulation of research with team sparring and co-developing on constructions and method, has also increased the validity. One limitation is that the study largely is retrospective, which makes it challenging for informants to remember. Then documents became more important in regards of when and what happened.

3.3 Case introduction

The table below introduces the cases.

Table 2. Introduction of the cases

Factors	CASE	MOUNTAIN	INLAND	FINNMARK	FJORD	INNOVA	USUS	WINTER
When (first period/Arena-period/now)		2002-/2004-2009/-	2003-/2005-2009/2010-ongoing	2004-/2006-2009/-	2005/2007-2009/ongoing	2005-/2008-2012/ongoing	2009-/2010-2015/ongoing	2009-/2011-2016/ongoing
Size (Start network programme/- stop/now)		91/122/-	55/15/20	66/7/59/	200/80/90	30/50/61	15/100+/140	43/61/72
Turnover of hired orchestrators		Few changes, rather stable	Few changes, rather stable	High turnover hired orchestrator	Rather high in periods	Stable	Stable	Stable

Comment: Case USUS is the only original name, the others are our shortened synonyms: MOUNTAIN= Innovative Mountain Tourism; INLAND= Growth in Culture and Experience Industries/Snowball FJORD= Innovative Fjord Tourism/NCE Tourism Fjord Norway, FINNMARK= Tourism Arena Finnmark; INNOVA= Innovative Experiences; WINTER= Profitable Winter Experiences.

The main activities are network-, competence- and product development and innovation projects within the networks chosen focus areas. The main differences are their size when it comes to number of members, their geographic area, main vision and type of firms, as well as how long they have existed, and if they are still ongoing.

4. FINDINGS – ORCESTRATOR ROLES AS SITUATED AND DYNAMIC

The study shows that several people and not only the hired formal network leader perform orchestration, there is an inner and outer circle where the inner does most orchestration. The circles are dynamic as they can be enlarged or reduced in periods as a result of challenges. In all cases the inner circle consists of the hired formal network orchestrator, formal network management team and the manager of the steering group, for some it also involves the whole steering group. The outer circle tends to involve the steering group including observers, as well as more temporary actors such as subproject leaders (which can be researchers, KIF¹s, firms, etc.), actors involved in specific activities (e.g. finding and linking relevant actors to projects, conferences, etc.) or persons acting as informal leaders (usually firms).

4.1 Network orchestration roles

The findings show five orchestrator roles, i.e. relational, HR, network organisation, knowledge and innovation orchestration. Each main role has subcategories. We see roles as sub-practices of orchestrating involving tasks, competences, relations, as well as *how* the roles are performed, i.e. the mode of practicing the roles. While a firm manager or steering group can perform tasks and manage in a top down fashion, networks orchestration is mostly a matter of facilitating processes, where bottom up processes and co-creation are important. As orchestrating involves more than one person, a single person is not always involved in all roles. Below the orchestrator roles are described and explained.

Relational (REL): This role focuses on developing and maintaining relations between actors and different stakeholder types. It involves relational brokering by connecting actors within and outside the network, and implies the development of network communities. The category has been developed into two subcategories, relational brokering within network and with external actors. Within the network, it is vital that the actors get to know each other, meet and interact regularly, and develop trust, and the orchestrators facilitate that. It can also involve conflict negotiations. REL with the external actors varies in different periods depending on what the network aims and tasks are. This role depends upon orchestrator's relational and social capital and how the orchestrator develops it in the network. REL done by one of networks' orchestrators is described below:

«..have an amazing ability to connect people...He is able to connect both small and large actors. He knows simple tricks that makes it possible to learn names incredible quick» (Firm, WINTER)

Who do this role: Mainly done by the hired orchestrators, with help from the steering group including observers. Sometimes also other firms with established contact.

¹ KIF=knowledge intensive firms like consultants and industry gardens

Human resource (HR): The role implies following up a single or a small group of members, particularly firms, during and between network gatherings. Three subcategories have been found. The first has to do with network members' need to be seen/heard, appreciated and understood. Many firms are SMEs or even micro firms, and work and learning environment within the firms are limited. The network and orchestrators can be seen as an extended environment for them. This can be illustrated as follows:

«.. I think that it is important that they include everyone, that they see every member for who they are, and in a way, is able to empathize with their daily work, and in this way encompass the knowledge that all have, and that you feel valuable, ... that is quite important in order to engage everyone» (local DMO², MOUNTAIN)

The second subcategory, 'engagement', has to do with mobilising actors through motivation and committing to network activities, meaning also to prioritise network activities and perform network activities outside of gatherings. Case MOUNTAIN struggled with firm engagement, due to organising the local DMO's as hubs. Engagement also mean to engage more than the firm's management, by having activities that include other employees. The third subcategory, implies supervising single or a small group of firms often related to learning and innovation (linked to KNOW and INNO roles). This subcategory also includes supervising members not following the network behaviour policy, e.g. only passively absorbing the ideas and experiences of other firms, but not sharing their own. HR orchestration is important because most firms are micro- or small enterprises immersed in their daily work of production, rather than innovation and long-term strategic activities. The practices of HR show that network orchestrators follow up firms between the gatherings, to create commitment and secure results:

«the support we get is great, particularly to a project that we are working on here, not least from the sub-project consultant... they are incredible at getting us into the right direction and on the right track» (Firm, FJORD)

When networks had unstable management, engaging and following up of members was missing. This is indicated in the following quote:

« to have 3 different [hired formal manager], have created a challenge. Because I believe and think that in this kind of projects you need one, one project manager that are present at all times and who are pushing» (Public facilitator, FINNMARK).

In addition, case FJORD had periods with unstable management that created challenges for the networks development.

Who: HR orchestration is organised differently across cases. In some cases, it is done by one or several of the hired orchestrators. For example, as the USUS network increased in size this role was split between orchestrating the activities of the existing and new network members, which were divided into four main groups and allocated orchestrating resources. Case WINTER organised follow up based on geography as the number of members and regions expanded. Case INNOVA has recently started doing so based on geography.

² Destination marketing/management organization.

Network-organisation (N-ORG): This role addresses the network as an organization in regard of what it should do and what it should become. Building the strategic and symbolic framework of the network as an organisation (/institution). It means facilitating for and taking part in related processes at three levels: strategic reflexivity, tactic processes and operative tasks. The subcategory ‘strategic reflexivity’ involves developing of common visions and goals. To secure relevance and engagement, it is important that the firms are placed in the center of the development. This was not done in MOUNTAIN. Parallel, the networks need to continue working with other strategic decisions such as network’s image, identity, focus areas, concrete action plans, exit strategy, as well as applying for funds both to secure the network existence and to allow for a larger project/innovation portfolio. This subcategory is closely linked to the HR role. ‘Tactic processes’ involve making policy decisions about recruiting members. Further, evaluating the network and its contribution to its members, communicating and narrating results and relevance and planning topics for network gatherings and subprojects. Implying that orchestrators operationalise the strategic plans and adjust the network’s activities in response to evaluations and other feedback from the members. Orchestrating larger formal networks, not least when having public funding, also involves the subcategory ‘operative tasks’, the quote below describes this subcategory:

« my job...venues, all the conferences and the meeting points in the cluster.... And then X has as the main project manager been the one taking care of the more advanced projects in USUS, connected with research and innovation department. Because that is her specialty, field. But mine is more on the practical, tactical and marketing, digital approach» (Orchestrator, USUS).

The subcategory is not only related to administrative tasks, but also to following up the networks progress and the sub-projects and preparing activities, and is closely connected to the HR role.

Overall this N-ORG role has to do with creating stability in the network and the members’ perception of relevance and progress, this can be illustrated as follows:

«There was some confusion about what was important in this area. And Lillehammer Kunnskapsarkivet initiated the process to get cooperation between cultural businesses and tourism. We said that ok, this is an interesting concept, but what we need is a wider definition of companies who should be in the network. Therefore, we included media, television, film. Hence we had this triangle of tourism-related businesses, cultural businesses and other businesses all the way from media to technology» (Firm, INLAND).

Both case USUS and INNOVA decided not to include local DMO’s in the initial periods. INNOVA based the decision on the negative learning from case MOUNTAIN, while USUS wanted to use the network to challenge the existing tourism structure with a great number of minor DMOs. In both of these cases the regional DMO were involved.

Who: The strategic and tactic levels involve specifically the steering group with observers in addition to the hired formal manager(s). However, strategy is not only practiced top down, in all cases it involves also more bottom up processes on e.g. network gatherings, particularly in the early stages and in refocusing or change stages. In case FINNMARK and MOUNTAIN there were power and/or organisational challenges. In FINNMARK, there was tension

between one of the hired orchestrators and the steering group regarding who was to decide the main core lines. In case MOUNTAIN the challenges were due to DMO's being hub-coordinators to follow up and speak for the firms.

Knowledge (KNOW): This role involves facilitating for, and participating in activities related to learning driven by the network. Network development with relations and trust between members are prerequisites. This is the role with most subcategories, seven in total. The subcategory 'facilitating for use of new knowledge and tools' and 'facilitating for sharing' is linked to HR when carried out off gatherings. Access to new knowledge and learning is perceived as one of the main benefits and sometimes as the main visible result of a network. It is closely related to and is a basis for the INNO role. Some describe adult learning as not only giving access to new knowledge and tools, but also as what we have termed 'increased consciousness and learning new ways to see and approach' phenomena not only as problems but potential opportunities. This has professionalised many firms and destinations. It is described as follows:

«the course in experience design and those models that we learned there, made us change the way we were thinking. I run all our concepts through that model. And I have done adult training for all my employees in thinking like this model suggest. Off course spiced up with our own ways to think. We have established a culture here to think in the right way» (Firm, INNOVA).

The last four subcategories are 'engaging actors (often externals) to share knowledge translations of knowledge and tools', 'facilitate development of knowledge/tools' and 'sharing knowledge and tools to externals'.

Who: This role is performed mainly by the hired orchestrators, but in USUS also by the hired companies' coordinators with respective competences. Some of the firms have informally done these sub-roles by being proactive lead actors not only within their own firm. Sometimes R&D and KIFs contribute in orchestration.

Innovation (INNO): The role implies facilitating and doing innovations driven by the network. Network development and trust is fundamental, so is also knowledge and learning. Five subcategories are found. Innovation work implies 'developing innovation ideas', orchestrating the 'innovation portfolio', and 'facilitating the innovation processes from idea toward implementation'. Besides, when working with learning and innovation, 'spin offs' often emerge, also one needs to 'handle the IPR³'. The latter is closely linked to the N-ORG role and is required to create trust between the members and to secure ownership and capitalisation of the outcome of innovation processes. Innovation portfolio is also linked to N-ORG, while facilitation of innovation processes is linked to HR. As tourism firms seldom use patents, this means other ways to secure IPR. The study shows that this is done differently in the cases. E.g. in INNOVA the rights were shared with all members, and in WINTER they were given to only five firms.

Who: Mainly the hired orchestrators, steering group and R&D.

³ Intellectual Property Rights

The findings are summarised in table 3. Note that the categories and subcategories in italics were also found by Nilsen and Gausdal (2017), this we return to in section 5.1.

Table 3: Orchestrator roles and sub-roles - Across case findings

Roles	Subcategories
1. Relational orchestration (REL)	<ol style="list-style-type: none"> <i>Brokering and facilitate formal and informal interactions, communities and relational development within network</i> (members and observers): A) B2B; B) B2network orchestrators; C) B2public organisations; D) B2R&D and KIF <i>Brokering and facilitate interactions with external actors</i>: A) other firms; B) other public facilitators; C) other R&D and KIF/experts; D) external networks; E) tour operators
2. HR orchestration (HR)	<ol style="list-style-type: none"> 'See'/listen to', map, understand and appreciate single members <i>Engage (motivate, commit, secure priority and secure proper network behaviour) single members</i> Supervise (coach, sparring) by helping single members in development issues and innovation in organisation
3. Network organisation orchestration (N-ORG)	<ol style="list-style-type: none"> <i>Strategic reflexivity processes</i>: vision, goals, main tasks, plans, other strategy decisions, exit-strategy, process leadership of difficult decisions, financing/ applications <i>Tactic processes</i>: A) membership recruitment/exit; B) evaluate; C) communicate/narrate and commit on strategies, results; D) plan topics for gatherings/subprojects; E) network behaviour policy; F) other network policy Operative tasks: A) <i>follow up network tasks and subprojects</i> to secure progress and results, also economic results; B) project administration: accounting, economy reports, reports on progress, prepare and run network gathering; C) <i>plan and run conferences and steering group/other meetings</i>; D) do operative tasks (e.g. development, sale, supply deals, get charters) in projects
4. Knowledge orchestration (KNOW)	<ol style="list-style-type: none"> Increase firms consciousness/understanding about knowledge needs (including R&D) and potentials <i>Engage actors</i> (often externals) to share relevant knowledge (lectures, courses, boundary objects, brokering) <i>Translation of A) knowledge and tools</i> (repertoire) to firms or B) firms/networks' need of knowledge/R&D and innovation to relevant researchers <i>Facilitate for use of new knowledge and tools in and between firms</i> A) on vs B) off gatherings. Facilitate for sharing (telling, observing, doing) experiences and learn together (A on vs B off gatherings) Facilitate for development of new knowledge, tools Share knowledge and tools to externals (conferences, courses, written material)
5. Innovation orchestration (INNO)	<ol style="list-style-type: none"> <i>Seeing opportunities and suggest ideas for innovations/ subprojects and inspire</i> Facilitate and orchestrate portfolio of innovations/developments (different stages in pipeline) Facilitate innovation processes (in network as whole, subprojects or single/some firms) from idea to implementation on and off network gatherings Facilitate development of spin offs Orchestrate the results of innovations (tools, knowledge, +)/IPR, protect and capitalize on it

4.2 Distribution of network orchestration roles over the phases of networks' journey

Informants describe orchestration roles as changing during the innovation network journey.

One informant describes this as follows:

«in the initial phase then it was more about being a process supervisor in terms of starting processes in the cluster, between the cluster firms, but also between the cluster and external actors. Then that phase developed into an operating phase, were there have been less focus on processes, if we put the Alta case in a parenthesis, because

that required us to have processes again. By operating I mean ensuring that sub-projects stayed on track, ensuring that deliveries were made, helping businesses in being good orders for each other, ...the operational. And now we will go into a phase again, depending on how our exit strategy works out, were we will focus on process supervision again» (Orchestrator, WINTER).

We build on the suggested analysis of XX (included later) with regard to how the innovation network journeys of seven cases are partly similar and partly different in terms of number of time periods and types of phases that change in a designed or emergent manner. XX (included later) describe eleven different phases. A detailed description of each networks phases and how roles vary across phases and time periods are given in Appendix 1.

Period 1: All cases share the phase ‘exploration’, and all except from case FINNMARK practiced relational (REL) and the subcategory ‘strategic reflexivity processes’ of network organisation (N-ORG) orchestration role. FINNMARK only has the latter, the reason seems to be the origin of the initiative.

«We were told that a centre of expertise program was launching. Then several of us went together thinking that we should be able to make it in Finnmark because we had tourism education at the university college, Finnmark Reiseliv and some firms that were “up and coming.” So, then we started a pre-project» (Development company, FINNMARK).

In some cases, other roles supplement: knowledge orchestration (KNOW) in USUS, where knowledge required for addressing common needs is being mapped, and innovation orchestration (INNO) in INNOVA, where the subcategory 6.1 (of seeing potentials and ideas) took place.

Period 2: All cases goes through the ‘establishment’ phase and have REL as a main role. Subcategory 1.1 is most vital in this period when establishing the network, developing the ground for learning and innovation. The focus is on building B2B relations (1.1A), gradually also between the other stakeholder types in the network. As the starting point was partly different for the networks, they faced partly different challenges. When the first networks started, there was less tradition for B2B cooperation than in later starting cases where such relations seemed to develop quicker. Most cases struggled with B2R&D relations in this phase. Four of the cases started with KNOW as a main role, three having it as supplementary role. KNOW brought important tools for cooperation, boundary crossing and for staring learning together and making fundamentals for innovation. For example, case INNOVA worked with new knowledge on existing products to evaluate and develop them, as well as with new product innovation. Combining KNOW and partly INNO, they also needed the follow up firms through the HR role. Six cases also had N-ORG as main role, some now also starts to work with the second subcategory, ‘tactic processes’. One reason is that two cases (INNOVA and WINTER) still worked on their application to the Arena-program, but also the others continued working on strategy to fine tune details and operationalize. INNO is an emerging role in all networks except MOUNTAIN, demonstrating early focus on innovation. INNO contributes even more than the learning processes to the perception of results for the firms and becomes even more important in the next phase.

Period 3: Among the six cases (not FINNMARK) going through phase ‘development through specialisation’, INNO is the main role in five, and emerging role in one of the cases. It seems that when the strategic plans and initial relationship building are over the networks quickly turned their attention to innovation and value creation. Still knowledge and learning are important, four cases have KNOW as a main role, two as a supplement. Five networks have REL as main, and one as supplement. This role is still important, as most cases get new members and increased interaction with stakeholders within R&D and other external actors. In INLAND, the continued presence of REL is related to the entrance of the new formal hired orchestrator. The HR role is main for four cases, supplementing for one, the main reasons seems to be that firms need follow ups with implementing innovations and new knowledge. REL now focuses more on other stakeholders than firms, the relations with firms are not mainly to develop trust, but supervision on knowledge and innovations which is done through the HR role.

Only case FINNMARK is in a different phase (re-establishment), with N-ORG and INNO as the main roles. FINNMARK had problems with high turnover in the hired network orchestrators and in this re-establishment phase the network was taken down to seven firm members. In effect, those remaining were the steering group members, which restructured the strategy. However, within this steering group were leading companies, particularly stressing a long-term strategy for the development. They work in parallel with innovation, resulting in establishing new co-operations such as a joint company and a wide spectrum of product portfolio. One of the firms claims that the innovation rate was higher than in the networks they have joined later on, that the cooperation with the other firms are still active, and that other projects and case WINTER have benefitted from their work.

Period 4: The five cases (except FINNMARK and FJORD) going through ‘maturation’ phase have INNO as a main role. This may be as expected since they are in the Arena-program and it is necessary in order to show progress. KNOW is main in three of the five, being central in innovation as input, in the process and as output. REL is still a main role in three of these cases. Still new firms, R&D and other stakeholders are becoming part of the networks or contribute in specific projects, i.e. some cases grow in members and relations. Within the five cases, N-ORG is main only in case USUS as they work proactively with the exit-Arena strategy.

The two cases (FINNMARK and FJORD) being in two different phases of re-establishments, has REL, N-ORG and KNOW as main roles. FJORD also has INNO. The main reasons seem to be the change of network program into NCE. FINNMARK rehires orchestrators from the exploration phase and with the new strategy from the steering group they started implementing the strategy in the wider network again using a foresight process. During this process, FINNMARK also slightly starts with HR.

Period 5: In the five cases in phase ‘continued development...’, N-ORG dominates as a main role. The main reason is that all are finishing the Arena-program that has brought regular financing and stability, and hence speeding up on the exit Arena-strategy. Applications for new financing seems to be vital if the networks are to continue. Some succeed with this, while others struggle. It becomes critical in the next phases for some of the cases (means the end of case MOUNTAIN and FINNMARK and significant challenges in INNOVA). In USUS, the N-ORG role is related to preparation to reorganise the network into

a new organisational form. In three of the cases REL is main, one has it as supplement. The reason for two of them was that they took on new members, but also increased cooperation with other networks. KNOW is main for two cases, as new knowledge still need to be developed, transferred and implemented in firms, to do planned innovations.

Case FJORD being in a different phase, has problems due to turnover in hired network orchestrators. FJORD has N-ORG as main role, with operative tasks as most prominent, and the other subcategories are supplementing:

« one spent time trying to sharpen the focus area, in addition there was a lot of replacements in the management of different reasons in this period » (Public facilitator, FJORD).

Period 6: Among the three cases going through phase ‘development after reorganising’, two have REL as main, and the third as supplementing. The reason why REL increases in importance again is new organisational form (USUS and INLAND), following from the growing number of network members (USUS) as well as changed membership and new formal hired orchestrator (INLAND). As the result of the growing network, continued activities and changing coordinators’ structure in USUS, HR also is main role. KNOW is main in two cases related to preparing for or doing innovation work in new areas.

In the two cases involved in other phases, N-ORG is the only main role in both. In case INNOVA the main reason is the lack of financing, making applications the main activity. In case FJORD the main reason is that strategic re-focusing and focus on actions, was part of getting out of the ‘taxing’ phase.

Period 7: Two of the three remaining cases went through a phase of ‘strategic re-focusing’, as the name indicates N-ORG is a main role in both. INNO with the close link with N-ORG is practiced to identify the main focus areas where innovation work begins in INLAND. Case INNOVA obtained larger financing and worked with a new strategy. INNOVA has KNOW as the other main role, since they have many new members.

Case FJORD is in a phase characterised by activity similar to that we described earlier as phase 3. One interesting finding on orchestrator roles is that they have REL, HR and INNO as main roles, which also dominated when other cases went through this phase in period 3.

Only case INLAND has so far entered *period 8 and 9*: Period 8 is similar to period 3, where innovation work in the main projects requires INNO as a main role. The main difference is in shifted focus from REL to HR, which is related to the weakened role of R&D in network activities. Period 9, similar to period 5, requires INNO and N-ORG, both as main roles. The main difference is that the REL role becomes main in period 9, the reason is re-involvement of the broader spectrum of businesses from other industries and R&D actors.

Closing remark: N-ORG is main or a supplementing role in most phases, since the subcategory operative tasks is required when they do the network gathering activities and report on financing. Similarly, it can be argued on REL, as work with relations and network community when not being a main role, always needs to be taken care of, even when no new relations are made.

When analysing the data, we found that for most cases relations and a shared community at least among B2B must develop before cooperative innovations can take place.

Further, it seems vital to work on shared visions/goals and knowledge tools/learning before starting with innovations. This does not mean that when relations are developed to a certain level, the relational work is done. Rather it needs regular cultivation. However, we see that FINNMARK start to focus on innovations due to their particular re-establishment phase were the steering board parallel work dedicated with innovations.

By using different subcategories, we can see how roles develop over time and how a role’s focus differs from phase to phase. Mainly the early subcategories are found in the earliest phases, while the later subcategories are found in later phases. For example, the practicing of KNOW orchestration usually start with the subcategories that increase the firms’ consciousness/ understanding about knowledge needs and potentials (4.1) and knowledge sharing from relevant actors (4.2), in the first two phases. After, the subcategory translation is needed (4.3) and it becomes important to facilitate for sharing and learning together (4.5) and the use of new knowledge and tools (4.4), which is the main focus in phase three. In the fourth phase, there is more focus on facilitation for development of new tools (4.6). Some networks have been eager to ‘share their knowledge to externals’ (4.7) with the whole industry, e.g. by producing general networks reports, tools and organizing open conferences. Another example is the INNO subcategory ‘orchestrating the results of innovation’ (5.5) which is shown to be important both at the beginning of a project to increase trust, and at the end of innovation projects.

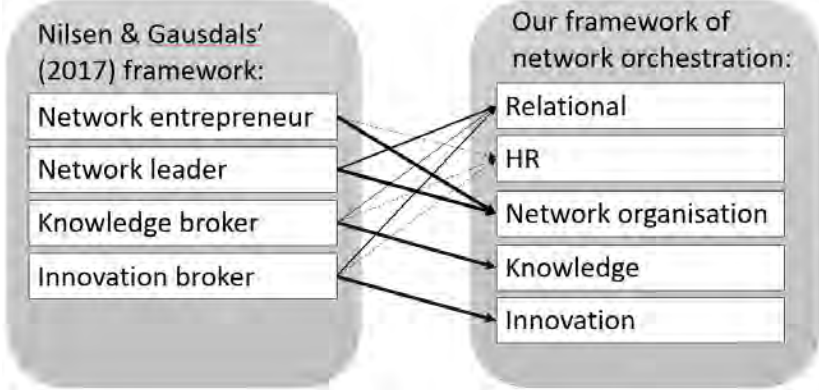
5. DISCUSSION

The discussion is structured in relation to each research question.

5.1 Network orchestrators’ roles

We have showed how network orchestration is distributed (e.g. see Groon, 2002; Benson and Blackman, 2011). In none of the cases, orchestration was practiced solely by the hired network leader, as it was in the study of Nilsen and Gausdal (2017). Both their and our study was of regional innovation networks involved in the Norwegian Innovation Arena Programme. Nilsen and Gausdal (2017) suggest a typology of four main orchestrator roles, with subcategories. We have developed it further, by suggesting five roles with partly new subcategories. The figure below illustrates overlaps in main roles.

Figure 1: Two partly overlapping frameworks on network orchestrator



The thickness of the arrows indicates where there is most overlap of main roles and their content. The overlapping subcategories can be seen in Table 3 in the appendix, where they are shown in italics. As shown in the literature section, authors use different terms. Nilsen and Gausdal (2017) claim they study orchestration, nevertheless they use different other concepts when describing the orchestration role, i.e. entrepreneur, leader and broker. In order to remain consistent to the overall choice of using the concept 'orchestration' and because the findings shows that the roles are carried out as orchestration, we have chosen to use the term 'orchestration' in relation to all the roles. Below we discuss the main similarities and differences compared to Nilsen and Gausdal (2017) and other literature.

(1) *Relational orchestration (REL)* has two subcategories, which overlap with the category 'network leader' by Nilsen and Gausdal (2017), in both cases the main focus is on developing relations, trust and social capital. The role of relational management has been argued to be important within service management, as part of the relational turn (Sheth and Parvatiyar, 1995), not only for daily production, but also to facilitate learning and innovation (e.g. Gummesson, 2003). Two of Nilsen and Gausdal's (2017) subcategories, 'link complementary actors' and 'facilitate interaction between participants', we have chosen to include within REL instead of integrating within the INNO role (their 'innovation brokering'). This is done in order to show how developing relations dynamically changes as the network develops over time. Furthermore, we found it difficult to separate relationship building into different types of activities as in Nilsen and Gausdal's (2017) framework. What we suggest is closer to our empirical findings and seems more intuitive. Further, we argue that relationship building in initial phases affect later phases were sharing knowledge and carrying out innovation projects is in focus. In the practice-based approach (cf. Wenger et al. (2002)), it is argued that a main concern should be the quality of the relations between the actors. The vital importance of relational quality is a main reasons why we decided to split the role 'network leader' (Nilsen and Gausdal (2017) into two main roles i.e. 'relationship orchestration' and 'network organisation orchestration'. As well we argue that this is a role more similar to orchestration than a leader or entrepreneur role. This is discussed further under the N-ORG role. REL was particularly important in the tourism networks because the actors had little experience with and traditions for interactions and network driven innovation.

(2) *HR-orchestration (HR)*: This activity is an important finding in our study, which we have suggested as a main role with three subcategories. Nilsen and Gausdal (2017) describe the importance of following up firms between network gatherings but they do not develop it into a separate category, only some hints in the subcategories of 'knowledge broker', 'innovation broker', and "network entrepreneur". It appears to be means to support other main activities. Also, our findings show that this role is important for the roles of KNOW and INNO, but we find that it has a value in its own. The latter in particular has been addressed as Scandinavian leadership, being human oriented and focusing on the relationship between the employee and leader (Spurkeland, 2017). Zander (1997) argues that Scandinavian employees prefer empowered coaching instead of top down management and control, and Atvesson (1990) argues that Scandinavian leaders have a more "social"-form of leadership. In addition, it has similarities to Johnsen (2002) leader role 'colleague- consultant' or 'sparring partner' where the manager uses interactions and conversations with co-workers to manage and solve issues. While these studies address firms, both Nilsen and Gausdal's (2017), and our study show that such a role is also present and important in inter-organisational networks, particularly when members are micro and small firms. The role has a balancing function

particular towards the INNO role which challenge and demands more of the members. This is similar to Van de Ven et al. (1999) and Angle and Van de Ven (2000) description of how the presence of one role often requires the presence of another.

(3) *Network-organisation orchestration (N-ORG)*: We have suggested N-ORG as a main role with three subcategories (strategic reflexivity, tactic processes and operative tasks). This is similar to Nilsen and Gausdal (2017) findings, where strategic orchestrating is covered in some of the subcategories within their main role ‘network leader’ and ‘network entrepreneur’. The main differences between N-ORG and network leader is that relationship building is lifted out as a separate orchestrator role, as discussed above and that we have made operative task a separate sub-category. We also find some new elements that has been added within the three levels. Their orchestrator which is one person in one network, took a more top-down approach compared to how N-ORG was practiced in our networks. We showed that the steering group with observers was most involved, but often members in strategy seminars and informal conversations were also involved. As members and public stakeholders had different interests and ambitions, the orchestrators need to ensure all voices are heard and to balance between stakeholders of unequal size or power. Like in the beginning of case FJORD where the orchestrators lifted up the importance of activity based micro firms. There are, however, some examples of more top down processes, like in case INNOVA when the network financing and activity is very low during phase ‘taxing. And in USUS, where network activities and tactic processes should be in a good fit with the initial strategy suggested by the leader of the steering group. Thus, our study reveals that indeed given the nature of orchestration authority and networks in general, the process of building strategy may take place in a combination of top-down and bottom-up processes. In this way, our study agrees with the practice-based perspective on orchestration, where N-ORG is a part of the daily processes and is able to influence them in a planned or emerging manner so that strategic outcomes are achieved (cf. Johnson et al., 2003).

One similarity in both studies (our and Nilsen and Gausdal (2017)) is that orchestrators authority was based on expertise and not only the formal position. A difference is that our study revealed new strategic tasks like applying for financing and network behaviour policy. Recruiting actors that could benefit from collaboration is an important orchestration task. Burt (2000) term this as being a “tertius gaudens”, controlling entrance and exit of members to fill structural holes in a network. We see this as part of the networks tactic processes and not as a separate role as suggested by Nilsen and Gausdal (2017). While they find a single network entrepreneur, we find it to be a collaborating task done by several and not only the hired orchestrators. Others have addressed composing the network as important task (Batterink et al. (2010); Dhanasaj and Parkhe (2006)). Further, van der Zee and Vanneste (2015) have argued that shared interests and goals are important.

(4) *Knowledge orchestration (KNOW)* and (5) *Innovation orchestration (INNO)* are important and main categories in both our and Nilsen and Gausdal’s (2017) framework. Others, such as Dhanasaj and Parkhe (2006), von Krogh et al. (2000) and Batterink et al. (2010) have elaborated on these roles. The main difference in the KNOW role is that we have more subcategories revealing what the orchestrators do and therefore added subcategories such as e.g. ‘share knowledge and tools to externals’ and ‘increase firm’s consciousness/ understanding about knowledge needs’. This might be due to many small and micro-businesses in the networks, large difference in educational level and increasing will to share

and cooperate. Within the INNO role, we suggested new subcategories such as ‘facilitate development and orchestrate portfolios of innovations/developments’, ‘facilitate development of spin offs’ (linked to N-ORG) and ‘facilitate innovation processes’ (linked to HR). All these are known in the innovation management literature (Froehle and Roth, 2007). For example, management of innovation portfolio is argued to be important (Smith and Tushman, 2005; Faems et al., 2005). However, IPR is often a matter of securing brand, design registration and patents in manufacturing and technology industries, while patents are rare in the tourism industry (Aas et al., 2018).

5.2 Roles in and across phases of innovation network journeys

Our study confirms the finding of Nilsen and Gausdal (2017) that orchestrators roles do vary across phases. Further, our study contributes with new knowledge of when the specific roles are practiced and why they change. A simplified overview of main patterns of roles across network development found in the two studies is illustrated in the figure below.

Figure 2: Network development and roles

Phase	1.Exploration	2.Establishment	3.Development through specialisations	4.Maturation as a triple helix	5.Continued development and reorganising	6.Development after reorganizing	7.Strategic refocusing
REL (Network leader/ entrepreneur)	[Thick line across all phases]						
HR	[Medium line from Phase 3 to Phase 7]						
N-ORG (Network leader/ entrepreneur)	[Thick line from Phase 1 to Phase 7]						
KNOW (Knowledge broker)	[Dotted line from Phase 5 to Phase 7]						
INNO (Innovation broker)	[Medium line from Phase 3 to Phase 5]						
Nilsen and Gausdal (2017)	Emergence: Knowledge broker Network entrepreneur Network leader		Growth: Network entrepreneur Innovation broker Network leader			Sustainment/decline: Innovation broker Network leader	

The thicker the line is the more prominent the role is in a phase. The thickest line indicates that this role is main for most of the networks when going through this phase (appears for least 75% of the networks). The medium line indicate that this role is main or supplementing for at least 50% of the networks and the dotted line indicates that fewer have this as main or as supplementing role in a phase (still appearing for at least 1/3 of the networks). Nilsen and Gausdals’ (2017) roles appears is showed in the parenthesis, while the last row in the figure shows where Nilsen and Gausdals’ (2017) roles appear during the development of their network. The main differences are discussed below.

How network development is understood: Nilsen and Gausdal (2017) use lifecycle theory and divide network development into four main phases, where the phases of establishing and re-establishing are considered one phase. The studied network lifespan was six years. It struggled in the beginning experiencing decline and re-establishing, over a total five periods. Our seven cases vary in the duration of network lifespans and journey patterns,

bringing increased understanding of variety, complexity and challenges, and hence the role of context for network development (XX, to be included).

More nuanced findings of how roles are situated, dynamic and co-existing: When combining the innovation network journeys (periods, phases and development patterns) of our cases (XX, included later) and our five suggested roles, we got a more nuanced matrix than Nilsen and Gausdal (2017) who combined four phases and four roles describing one case. Partly the increase in nuances follows from doing a multi-case study. More nuance is important because it gives deeper understanding of how the roles are dynamic and situated. We showed how roles can emerge in a phase as supplementing before becoming the focus of the orchestrators in the next phase. The nuancing also gave increased understanding of how roles being main and/or supplementing co-exist and can balance each other. We showed that roles are done by more than one person. The situatedness internal and/or external of networks are the reason for the dynamic nature and the co-existence of roles. Examples of situatedness being critical are turnover of hired network managers and lack of financing. Earlier, Van de Ven et al. (1999) and Angle and Van de Ven (2000) described how one role often requires the presence of another role in innovation processes, and how certain roles can balance each other. HR seems to have the function as a balancing role as it appears when the expectations to delivered and share results and innovation increase, challenging members to do more and do better.

When the specific orchestrators' roles are practiced: Nilsen and Gausdal (2017) found that activity related to strategy, recruitment, identity and evaluation, i.e. subcategories we have constructed as part of network-organisation orchestration (N-ORG), are important in all four phases in their case. We find that the two first subcategories of N-ORG is most important during the first two phases, and later when network strategy is being changed. In other phases it is the subcategory operational tasks that supplements other roles. It is relational orchestration (REL) and N-ORG that are present in most phases. Fosse and Normann (2017) found that the development of relations is a continuous process throughout the networks lifespan. However, they do not, to the same extent, show that networks are dynamic and that is why there is a continuous need for REL. Our findings suggest that the deepening of existing relationship is done by HR, KNOW and/or INNO being more task-oriented, and not mainly to develop relations/trust. However, when going through strategic changes or changes in management, the need for REL often reappears. Furthermore, our findings suggest that while the network leader often orchestrates REL the first two phases and in relations to strategic changes, there are more people that do REL later. As Fosse and Normann (2017) we also found that whether or not the actors had a previous relation affected the length of the relationship building, suggesting a dynamic and recurrent pattern, which is also is situational. This is more akin to how Van de Ven et al. (1999) describes the innovation journey and not at the outset known sequence of stages as suggested by the life-cycle models'.

While Nilsen and Gausdal (2017) found that *innovation brokering (INNO)* is important in phase three and four, our study confirms that INNO depends on which orchestrator roles have taken place before. We also show other roles co-existing with INNO. Suggesting that roles both are dependent upon, and balance each other, it has similarity to Van de Ven et al. (1999) and Angle and Van de Ven (2000) when describing the management roles in the innovation journey. In all our cases, KNOW is important in several phases, but is not a main role in the first phase. This is a significant difference to Nilsen and Gausdal

(2017), who only finds KNOW important in the first phase. One reason for the difference seems to be that our networks in the first two phases focused largely on developing B2B and other relations and shared vision and tasks for the network. Developing boundary objects, our networks started mostly in phase three. Further, KNOW continued in later phases, because the networks get new members and innovations. Even though Fosse and Normann (2017) do not have a specific role related to knowledge orchestration, they also find knowledge development to be important in later phases. We find that the HR-role is most important in period three and four, and later. This role is not explicitly developed by neither Fosse and Normann (2017) nor Nilsen and Gausdal (2017).

Contexts and innovation models: There seems also to be other reasons for the differences in the types of roles and when they appear, here we address the differences of the health technology network (Nilsen and Gausdal, 2017) and our tourism networks regarding contexts and innovation models. Network size: The tourism networks often have more members. The orchestrators therefore must develop relations with, engage and follow up more actors. Most of the tourism networks also develop in size, so the recruitment and relationship development continue. Geographical proximity varies: Many of the tourism networks are dispersed geographically, meaning more resources in time and travel costs for members and orchestrators when to meet. This influenced network infrastructure development. For example, some networks organized sub-networks geographically with own orchestrators, gatherings, goals and activities. Also, the network costs of meeting edged the question on ‘what’s in it for me’. Educational level: Most participants in the technology network had at least bachelor education in technology or health, while in tourism there is a large variation, from high school level to PhD, and in different areas. Education has consequences for *brokering and translation*. The health technology network needed brokering and translation between two main fields, i.e. technology (being suppliers) and health sector (being customers), not understanding each other. The tourism networks consist of many different sectors. Most firms were not used to interact with R&D, and in many cases R&D were not used to interact with the industry. Innovation practices and what is innovated: Innovation models, measures and policy programs on innovation, build on studies of innovation in manufacturing and technology industries, and seems to assume that innovation is generic. While we have shown and argued that network driven innovation and orchestration is not mainly generic, it is situated in context and dynamic, which is in line with the divergent and mix approach to service innovation, (see e.g. Nijssen et al., 2006; Tether, 2005). Models of science and technology innovation is more top down and closer to R&D (Engen, 2016). The models of tourism innovations are more emerging, incremental, often bottom up and innovations can be hidden (Droege et al., 2009). Neither the health technology network nor the tourism networks had traditions for interacting with R&D when starting, however there are other sides of the innovation models that can influence the network orchestrator roles differently. The concept of ‘knowledge transfer’ seems to be more complex in tourism organisations than in manufacturing (Hjalager, 2010; Hoarau and Kline, 2014; Hjemdahl and Aas, 2018). Experience products or concepts being innovated, are mainly intangible, often involving employees’ behaviour and practices, which makes innovations of products intertwined with process and organisational innovations (Eide and Mossberg, 2013; Rønningen and Lien, 2014). In addition, the needs and behaviour of customers and other cooperating partners are not involved in the network. All this implies that it may involve multi-innovations.

6. CONCLUSIONS

The paper explores the nature of innovation network orchestrators' roles and how they vary across the phases of innovation network journeys. We have developed the *main claim* that network orchestration is situated and dynamic, by elaborating how and why five main roles with subcategories have different degrees of importance during networks' development.

The study reveals five network orchestrator roles. The study partly confirms the framework by Nilsen and Gausdal (2017), partly it develops it by contributing with new knowledge. Some of the subcategories are reorganised to gather all subcategories related to REL and N-ORG, which is a minor contribution. The major contribution is the new subcategories, 3.3 in N-ORG, 4.1, 4.5 and 4.7 in KNOW and 5.2 and 5.4 in INNO, and the new role HR. The new role and subcategories unveil hidden sides of network orchestrator practices, increasing the understanding. For Nilsen and Gausdal (2017), strategy was the most surprising finding. However, our study shows that strategic practices are also reflexive (cf. Eide and Fuglsang, 2013) and requires reflexive interpretations about uncertain future developments under the pressure to innovate. This implies that strategic and tactic processes are not only planned when networks are established, they must often be continuously revised in the light of internal and external emergent opportunities and challenges. The main contribution is the HR role. There has been little focus on this earlier. The HR role takes time and seems most vital for SME/micro firms in order to actively participate in networks, utilize new knowledge and do innovations.

We have shown (Figure 2) and explained why the five roles have different importance in different periods and phases in the network journeys. XX (include later) showed that the networks only partly go through the same phases. Moreover, similar phases often, but not always, are characterised by the same main and supplementing orchestrating roles, which is not possible to show in a single case study. In addition, this study has revealed that other roles than Nilsen and Gausdals' (2017) prevail in some of the phases. Our study brings deeper understanding of how network-orchestrating roles are situated and dynamic. In addition to theoretical implications, this has practical and policy implications. For example, innovation policy programs like the Arena Program educate and supervise the hired network managers. It is argued there that network management is complex and should depend on the network phases and situation. Acknowledging and educating about differences in development and more nuanced roles, can make network orchestrators and supervisors better prepared/equipped.

Finally, we have discussed and suggested how network orchestration can depend on the context and therefore not be generic. Network size, the geographical proximity, members educational level and the innovation practices seems to affect how roles develop over time. Innovation policy programs seem to assume that innovation and networks will be close to more linear phase design models used in manufacturing and technology industries. Within tourism, the emerging, ad hoc and often bottom up nature model dominates the practices and therefore co-exist in the networks. This confirms studies (e.g. Eide and Fuglsang, 2013; Nordli, 2017) arguing that service and experience innovation, at least partly, is divergent from manufacturing and technological industries. This has theoretical implications, but also methodological implications as well as manager and policy implications. When policy programs largely build on the technology innovation model, they

may disfavour industries and processes closer to other models, which can be important hidden innovations or potentials for innovation and value creation in firms, networks and regions.

Limitations and future research

We have already mentioned limitations such as lack of memory, more being veiled when researchers are not participating with doing retrospective data collection. There is also a need for further testing and development of the framework of network orchestrator roles with subcategories, across network journeys, in other networks, industries and countries. We have not focused only on the formal network manager, but the practice and actors participating. This shows orchestrating as distributed, there is a need for further studies of how network orchestration and innovation is distributed in a wider co-creation. Further, there is a need for more in depth study of how different innovation models are practiced and co-exist in network driven innovations, how innovation policy programs and research programs acknowledge and facilitate them, or do the opposite, it's reasons and consequences such as gender, power and learning.

Bibliography

- Aas, TH, KM Hjemdahl, D Nordgård, and E Wästlund (2018). Outbound open innovation in tourism: Lessons from an innovation project in Norway. In Aas, TH and A-L Mention (Eds.), *Managing Open Service Innovation*. London: World Scientific Publishing
- Alsos, G A, D Eide and EL Madsen (2014). Introduction: Innovation in tourism industries. In Alsos, GA, D Eide and EL Madsen (Eds.), *Handbook of research on innovation in tourism industries*, pp. 1-24. Cheltenham: Edward Elgar Pub. Ltd.
- Alvesson, M and K Sköldbberg (2000). *Reflexive methodology : new vistas for qualitative research*. London: Sage.
- Angle, HL and AH Van de Ven (2000). Suggestions for managing the innovation journey. In Van de Ven, AH , HL Angle and MS Poole (Eds.), *Research on the management of innovation: the Minnesota studies*, pp. 663-697. New York: Oxford University Press.
- Antonacopoulou, EP (2008). On the practise of practice: In-tensions and ex-tensions in the ongoing reconfiguration of practices. In Barry, D and H Hansen (Eds.), *The SAGE Handbook of New Approaches to Management and Organization*, pp. 112-131. London: SAGE.
- Atvesson, M (1990). Organization: From Substance to Image? *Organization Studies*, 11(3), 373-394. doi:10.1177/017084069001100303
- Batterink, MH, EFM Wubben, L Klerkx and SWF Omta (2010). Orchestrating innovation networks: The case of innovation brokers in the agri-food sector. *Entrepreneurship & Regional Development*, 22(1), 47-76. doi:10.1080/08985620903220512
- Benson, AM and D Blackman (2011). To distribute leadership or not? A lesson from the islands. *Tourism Management*, 32(5), 1141-1149. doi:10.1016/j.tourman.2010.10.002
- Bolman, LG and TE Deal (2008). *Reframing organizations: artistry, choice, and leadership* (4th ed.). San Francisco, Calif: Jossey-Bass.
- Braun, V and V Clarke (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. doi:10.1191/1478088706qp063oa
- Burt, RS (2000). The Network Entrepreneur. In Swedberg, R (Ed.), *Entrepreneurship: The Social Science View*, pp. 281-307. Oxford: Oxford University Press.
- Chesbrough, H (2011). *Open services innovation: rethinking your business to grow and compete in a new era*. San Francisco: Jossey-Bass.
- Clegg, S, E Jossierand, A Mehra and TS Pitsis (2016). The Transformative Power of Network Dynamics: A Research Agenda. *Organization Studies*, 37(3), 277-291. doi:10.1177/0170840616629047
- Currie, G, S Grubnic and R Hodges (2011). Leadership in public networks: Antecedents, process and outcome. *Public Administration*, 89(2), 242-264. doi:10.1111/j.1467-9299.2011.01931.x
- DeBresson, C and F Amesse (1991). Networks of innovators :A review and introduction to the issue. *Research Policy*, 20(5), 363-379. doi:https://doi.org/10.1016/0048-7333(91)90063-V
- Dhanasaj, C and A Parkhe (2006). Orchestrating Innovation Networks. *The Academy of Management Review*, 31(3), 659-669. doi:10.2307/20159234
- Dooley, L and D O'Sullivan (2007). Managing within distributed innovation networks *International Journal of Innovation Management*, 11(03), 397-416. doi:10.1142/s1363919607001801
- Droege, H, D Hildebrand and MA Heras Forcada (2009). Innovation in services: Present findings, and future pathways. *Journal of Service Management*, 20(2), 131-155. doi:10.1108/09564230910952744
- Eide, D and L Fuglsang (2013). Networking in the experience economy: Scaffolded networks between designed and emerging regional development. In Sundbo, J and F Sørensen (Eds.), *Handbook on the Experience Economy*, pp. 287-309. Cheltenham: Edward Elgar Publishing.
- Eide, D and L Mossberg (2013). Towards more intertwined innovation types: innovation through experience design focusing on customer interactions. In Sundbo, J and F Sørensen (Eds.), *Handbook on the Experience Economy*, pp. 248-268. Cheltenham: Edward Elgar Publishing.
- Engen, M (2016). *Frontline employees as participants in service innovation processes: innovation by weaving*. (Ph.D), Lillehammer University College, Lillehammer.

- Etzkowitz, H and L Leydesdorff (1997). *Universities and the global knowledge economy: a triple helix of university-industry-government relations*. London: Pinter.
- Faems, D, B Van Looy and K Debackere (2005). Interorganizational collaboration and innovation: toward a portfolio approach. *Journal of Product Innovation Management*, 22(3), 238.
- Field, J (2003). *Social capital*. London: Routledge.
- Flyvbjerg, B (2001). *Making social science matter: why social inquiry fails and how it can succeed again*. Cambridge: Cambridge University Press.
- Fosse, JK and R Normann (2017). Management strategies in cluster projects: Cases and discussion. In Fornahl, D and R Hassink (Eds.), *The life cycle of clusters: a policy perspective*, pp. 115-134. Cheltenham: Edward Elgar Publishing.
- Froehle, CM and AV Roth (2007). A resource-process framework of new service development. *Production and Operations Management*, 16(2), 169-188. doi:10.1111/j.1937-5956.2007.tb00174.x
- Fuglsang, L (2008). Innovation with care: What it means. In Fuglsang, L (Ed.), *Innovation and the creative process : towards innovation with care*, pp. 3-21. Cheltenham: Edward Elgar.
- Fuglsang, L, H Ness and D Eide (2015). Call for paper abstracts -Special Issue on the Dynamics of Networks, Networking and Innovation in the Tourism industry. *Scandinavian Journal of Hospitality and Tourism*. Retrieved from <http://www.opplevelserinord.no/getfile.php/Bilder/Artikkelbilder/Call%20for%20paper%20-%20Innovation%20networks%20in%20tourism-final.pdf>
- Gallouj, FZ, L Rubalcaba and P Windrum (2013). *Public-private innovation networks in services*. Cheltenham: Edward Elgar Pub. Ltd.
- Gausdal, AH and ER Nilsen (2011). Orchestrating Innovative SME Networks. The Case of "HealthInnovation". *Journal of the Knowledge Economy*, 2(4), 586-600. doi:10.1007/s13132-011-0070-7
- Gronn, P (2002). Distributed leadership as a unit of analysis. *The Leadership Quarterly*, 13(4), 423-451. doi:10.1016/S1048-9843(02)00120-0
- Graen, G (1976). Role-making processes within complex organizations. In Dunning MD (Ed.), *Handbook of Industrial and Organizational Psychology*, pp. 1201-1246. Chicago: Rand McNally.
- Green, L, A Pyka and B Schön (2013). A life cycle-based taxonomy of innovation networks - with a focus on public-private collaboration. In Gallouj, FZ, L Rubalcaba and P Windrum (Eds.), *Public-private innovation networks in services*, pp. 113-135. Cheltenham: Edward Elgar Pub. Ltd.
- Gummesson, E, G Bureid and TM Andersen (2003). *Relasjonsmarkedsføring: fra 4P til 30R* (2. utg.). Oslo: Kolle forl.
- Heidenreich, S, J Landsperger and P Spieth (2016). Are Innovation Networks in Need of a Conductor? Examining the Contribution of Network Managers in Low and High Complexity Settings. *Long Range Planning*, 49(1), 55-71. doi:<http://dx.doi.org/10.1016/j.lrp.2014.03.003>
- Hjalager, AM (2010). A review of innovation research in tourism. *Tourism Management*, 31(1), 1-12. doi:<http://dx.doi.org/10.1016/j.tourman.2009.08.012>
- Hjemdahl, KM and TH Aas (2018). Doing research on, for and with tourism organizations during innovation processes. In Ren, C, GTR Jóhannesson and R Van der Duim (Eds.), *Co-creating tourism research: towards collaborative ways of knowing*, pp. 111-130. London and New York: Routledge.
- Hoarau, H and C Kline (2014). Science and industry: Sharing knowledge for innovation. *Annals of Tourism Research*, 46, 44-61. doi:10.1016/j.annals.2014.01.005
- Hurmelinna-Laukkanen, P, H Olander, K Blomqvist and V Panfilii (2012). Orchestrating R&D networks: Absorptive capacity, network stability, and innovation appropriability. *European Management Journal*, 30(6), 552-563. doi:10.1016/j.emj.2012.03.002
- Jensen, MB, B Johnson, E Lorenz and BA Lundvall (2007). Forms of knowledge and modes of innovation. *Res. Policy*, 36(5), 680-693. doi:10.1016/j.respol.2007.01.006

- Jernsand, EM, H Kraff and L Mossberg (2015). Tourism Experience Innovation Through Design. *Scandinavian Journal of Hospitality and Tourism*, 1-22. doi:10.1080/15022250.2015.1062269
- Johnsen, E (2002). *Managing the managerial process: a participative approach*. Copenhagen: DJØF Publ. Universitetsforl.
- Johnson, G, L Melin and R Whittington (2003). Micro Strategy and Strategizing: Towards an Activity-Based View. *Journal of Management Studies*, 40(1), 3-22. doi:10.1111/1467-6486.t01-2-00002
- Landsperger, J and P Spieth (2011). Managing innovation networks in the industrial goods sector. *International Journal of Innovation Management*, 15(06), 1209-1241. doi:10.1142/s1363919611003714
- Landsperger, J, P Spieth and S Heidenreich (2012). How Network Managers Contribute to Innovation Network Performance. *International Journal of Innovation Management*, 16(06), 1240009. doi:10.1142/s1363919612400099
- Lindberg, F, AH Hansen and D Eide (2014). A Multirelational Approach for Understanding Consumer Experiences Within Tourism. *Journal of Hospitality Marketing and Management*, 23(5). doi:10.1080/19368623.2013.827609
- Lorenzoni, G and A Lippardini (1999). The leveraging of interfirm relationships as a distinctive organizational capability: A longitudinal study. *Strateg. Manage. J.*, 20(4), 317-338. doi:10.1002/(SICI)1097-0266(199904)20:4<317::AID-SMJ28>3.0.CO
- Marabelli, M and S Newell (2012). Knowledge risks in organizational networks: The practice perspective. *Journal of Strategic Information Systems*, 21(1), 18-30. doi:10.1016/j.jsis.2011.11.002
- Mintzberg, H (1989). *Mintzberg on management: inside our strange world of organizations*. New York: Free Press.
- Müller-Seitz, G (2012). Leadership in Interorganizational Networks: A Literature Review and Suggestions for Future Research. *International Journal of Management Reviews*, 14(4), 428-443. doi:10.1111/j.1468-2370.2011.00324.x
- Newell, S, M Robertson, H Scarbrough and J Swan (2009). *Managing knowledge work and innovation* (2nd ed. ed.). Basingstoke: Palgrave Macmillan.
- Nicolini, D (2012). *Practice theory, work, and organization: an introduction*. Oxford: Oxford University Press.
- Nijssen, EJ, B Hillebrand, PA Vermeulen and RGM Kemp (2006). Exploring product and service innovation similarities and differences. *International Journal of Research in Marketing*, 23(3), 241-251. doi:10.1016/j.ijresmar.2006.02.001
- Nilsen, ER and AH Gausdal (2017). The Multifaceted role of the network orchestrator - a longitudinal case study. *International Journal of Innovation Management*, 21(6), 23 p. doi:10.1142/s1363919617500463
- Nordli, AJ (2017). Information use and working methods as drivers of innovation in tourism companies. *Scandinavian Journal of Hospitality and Tourism*, 1-15. doi:10.1080/15022250.2017.1343682
- OECD. (2005). *Oslo manual: guidelines for collecting and interpreting innovation data* (3rd ed. ed.). Paris: Organisation for Economic Co-operation and Development.
- Orton, JD and KE Weick (1990). Loosely Coupled Systems: A Reconceptualization. *The Academy of Management Review*, 15(2), 203-223. doi:10.2307/258154
- Paquin, RL and J Howard-Grenville (2013). Blind Dates and Arranged Marriages: Longitudinal Processes of Network Orchestration. *Organization Studies*, 34(11), 1623-1653. doi:10.1177/0170840612470230
- Pine, BJI and JH Gilmore (2011). *The experience economy* (Rev. and updated ed.). Boston, Mass: Harvard Business School Press.
- Powell, WW and S Grodal (2005). Networks of Innovators. In Fagerberg, J, DC Mowery and R Nelson (Eds.), *The Oxford Handbook of Innovation*, pp. 56-85. Oxford: Oxford University Press.

- Powell, WW, KW Koput and L Smith-Doerr (1996). Interorganizational Collaboration and the Locus of Innovation: Networks of Learning in Biotechnology. *Administrative Science Quarterly*, 41(1), 116-145. doi:10.2307/2393988
- Rønningen, M, and G Lien (2014). The importance of systemic features for innovation orientation in tourism firms. In Alsos, GA, D Eide and EL Madsen (Eds.), *Handbook of research on innovation in tourism industries*, pp. 27-55. Cheltenham: Edward Elgar Pub. Ltd.
- Sheth, JN and A Parvatiyar (1995). The evolution of relationship marketing. *International Business Review*, 4(4), 397-418. doi:10.1016/0969-5931(95)00018-6
- Smith, WK and ML Tushman (2005). Managing Strategic Contradictions: A Top Management Model for Managing Innovation Streams. *Organization Science*, 16(5), 522-536. doi:10.1287/orsc.1050.0134
- Soekijad, M, BJ Hooff, LCM Agterberg and MH Huysman (2011). Leading to learn in networks of practice: Two leadership strategies. *Organization Studies*, 32(8), 1005. doi:10.1177/0170840611410834
- Spradley, JP (1980). *Participant observation*. New York: Holt, Rinehart and Winston.
- Spurkeland, J (2017). *Relasjonsledelse* (5. utg. ed.). Oslo: Universitetsforlaget.
- Steyaert, C (1995). *Perpetuating entrepreneurship through dialogue. A social constructionist view*. (DhD-thesis), Katholieke Universitet Leuven. Retrieved from <https://www.alexandria.unisg.ch/publications/18450>
- Stryker, S and A Statham (1985). Symbolic Interaction and Role Theory. In Lindzey, G and E Aronson (Eds.), *Handbook of Social Psychology* (3rd ed.). New York: Random House.
- Sundbo, J and F Gallouj (2000). Innovation as a loosely coupled system in services. *International Journal of Services Technology and Management*, 1(1), 15-36. doi:10.1504/ijstm.2000.001565
- Sundbo, J, F Orfila-Sintes and F Sørensen (2007). The innovative behaviour of tourism firms—Comparative studies of Denmark and Spain. *Research Policy*, 36(1), 88-106. doi:10.1016/j.respol.2006.08.004
- Sundbo, J, F Sørensen and L Fuglsang (2013). Innovation in the experience sector. In Sundbo, J and F Sørensen (Eds.), *Handbook on the Experience Economy*, pp. 228-247. Cheltenham: Edward Elgar Publishing Ltd.
- Tether, BS (2005). Do Services Innovate (Differently)? Insights from the European Innobarometer Survey. *Industry and Innovation*, 12(2), 153-184. doi:10.1080/13662710500087891
- Van de Ven, AH (2017). The innovation journey: you can't control it, but you can learn to maneuver. *Innov.-Manag. Policy Pract.*, 19(1), 39-42. doi:10.1080/14479338.2016.1256780
- Van de Ven, AH, DE Polley, R Garud and S Venkataraman (1999). *The innovation journey*. New York: Oxford University Press.
- Van de Ven, AH, MS Poole, R Garud and S Venkataraman (1995). Explaining Development and Change in Organizations. *The Academy of Management Review*, 20(3), 510-540.
- van der Zee, E and D Vanneste (2015). Tourism networks unravelled; a review of the literature on networks in tourism management studies. *Tourism Management Perspectives*, 15, 46-56. doi:https://doi.org/10.1016/j.tmp.2015.03.006
- von Krogh, G, K Ichijo and I Nonaka (2000). *Enabling Knowledge Creation: How to Unlock the Mystery of Tacit Knowledge and Release the Power of Innovation*. Oxford: Oxford University Press.
- Wenger, E (2000). Communities of Practice and Social Learning Systems. *Organization*, 7(2), 225-246. doi:10.1177/135050840072002
- Wenger, E, R McDermott and WM Snyder (2002). *Cultivating communities of practice: a guide to managing knowledge*. Boston: Harvard Business School Press.
- Zander, L (1997). *The Licence to Lead: an 18 Country Study of the Relationship between Employees' Preferences Regarding Interpersonal Leadership and National Culture*. (Ph.D), Stockholm School of Economics, Stockholm.

Appendix 1: Network orchestrating roles across periods – situated and dynamic role practicing

Period	1	2	3	4	5	6	7	8	9
Most usual phases	<i>1Exploration</i>	<i>2Establishment</i>	<i>3Development through specialisations</i>	<i>4Maturation of network as a triple helix</i>	<i>5Continued development and (preparation) reorganizing</i>	<i>6Development after reorganizing:</i>	<i>7Strategic refocusing</i>		
Duration	0,5 to 2 years	1 to 2 years	1 to 2 years	1 to 2 years	0,5 to 2 year				
MOUN-TAIN	REL (1.1C), N-ORG (3.1)	REL (1.1A), N-ORG (3.1&3.2) [KNOW]	REL, HR [KNOW, INNO, N-ORG (3.3)]	RELO (1.1.D), HR, KNOW, INNO [N-ORG (3.3)]	N-ORG, KNOW	-	-	-	-
INLAND	REL(1.1&1.2 A,C,D), N-ORG (3.1&3.2A,C)	REL(1.1.&1.2.A, C,D), N-ORG (3.1&3.2), KNOW (5.1,2,5A,7), [INNO 6.1]	KNOW, INNO, REL(1.2) [N-ORG (3.3)]	INNO (6.2 & 6.3), HR [REL 1.1B., (3.3)]	N-ORG, INNO [REL]	REL (1.1.A,B), KNOW [N-ORG(3.3)]	N-ORG, INNO [REL]	<i>As phase 3: INNO, HR, [N-ORG (3.3)]</i>	<i>As phase 5: N-ORG, REL (1.2), INNO (6.1,2,3) [HR]</i>
FINN-MARK	N-ORG (3.1) [REL]	REL, KNOW	<i>8Network re-establishment: N-ORG, INNO</i>	<i>9Network re-establishment through expansion: REL, N-ORG, KNOW [HR]</i>	-	-	-	-	-
FJORD	REL, N-ORG (3.1)	REL, N-ORG (3.1&3.2) [KNOW, INNO (6.1)]	HR, INNO [REL, N-ORG (3.3)]	<i>10Start-up NCE: REL, N-ORG, KNOW, INNO</i>	<i>11Taxiing: N-ORG(3.3) [N-ORG(3.1), INNO (6.2, 6.3)]</i>	<i>As phase 7: N-ORG [REL KNOW]</i>	<i>As phase3: REL, HR, INNO [N-ORG (3.3)]</i>	-	-
INNOVA	REL(1.1A), N-ORG (3.1) [INNO (6.1)]	REL, HR, N-ORG (3.1&3.2), KNOW [INNO (6.3)]	REL (1.1D), HR, KNOW, INNO	REL, HR, KNOW, INNO (1.1D) [N-ORG (3.3)]	REL (1.2D), N-ORG, INNO [HR]	<i>11Taxiing: N-ORG</i>	SO, KO [REL, INNO]	-	-
USUS	REL (1.1.), N-ORG (3.1) [KNOW]	N-ORG (3.1&3.2), KNOW, RREL, [INNO]	KNOW, INNO, REL, [N-ORG (3.3)]	HR, N-ORG, INNO [REL]	REL, HR, N-ORG [INNO]	REL, HR, [N-ORG (3.3)]	-	-	-
WINTER	REL (1.1A), N-ORG (3.1)	REL, N-ORG (3.1&3.2) [HR, KNOW, INNO]	REL (1.1D), HR, KNOW, INNO	REL (1.1D, 1.1A), HR, KNOW, INNO [N-ORG (3.3)]	N-ORG, KNOW, INNO [REL (1.2D), HR]	KNOW, INNO [REL (1.2D), HR, N-ORG (3.3)]	-	-	-

Comment: - =network closed down, when text is missing in a cell it means that this period has not started yet. REL=relational orchestration; HR=HR orchestration; N-ORG=network organisation orchestration; KNOW=Knowledge orchestration; INNO=Innovation orchestration

The orchestrator roles⁴ written in bold text are the most dominating, when there are specific subcategories in focus, the number (sometimes with a letter) is included in brackets. Present, but more supplementing roles are not in bold but in square brackets. The darker grey cells are the six most usual phases, the light grey cells are phases taking place in one or some cases (XX, included later). The table shows that the roles changes across phases, as well it gives some indications of how a role may change as one subcategory (e.g. 1.1A) can be more important in some phases than in others.

⁴ The interviews do not cover period 9 in INLAND, 7 – in INNOVA, and 6 – in WINTER, the suggestion is based on observations as well as conversations with the main hired manager in the network.

Paper 4

Between company and network practices: mirroring innovative ideas

5.4. Between company and network practices: mirroring innovative ideas

Authors	Olga Høegh-Guldberg
Year	2018
Type	Empirical article
Status	Accepted to: Special issue on the Dynamics of Networks, Networking and Innovation in the Tourism Industry in the <i>Scandinavian Journal of Hospitality and Tourism</i> 18(3). Published online: 06 Jul 2018



Between company and network practices: mirroring innovative ideas

Olga Høegh-Guldberg 

Høgskolen i Innlandet (Inland Norway University of Applied Sciences), Lillehammer, Norway

ABSTRACT

Research has demonstrated the importance of business networks for innovation. Recent studies on innovation contribute to a better understanding of internal network processes and how network members can use their network position to benefit from these processes. However, knowledge about what role business network innovation plays in the organisations of network members is lacking. The aim of this study is to increase understanding of how business network innovation emerges and spreads to network members. It is suggested to focus on the practices of member companies in order to understand how network innovation changes these practices. Two case studies in the tourism sector are used in this study to develop Michel Foucault's concept of mirroring to explain how network innovation emerges and spreads from the network to companies. The results suggest that owing to its formative, directional, long-term and dynamic nature, the mirroring process can better capture the network-company context than other perspectives on the spread of innovation.

KEYWORDS

Business network; spread of innovation; network practice; company practice; mirroring

Introduction

The main objective of this study is to explore how network innovation leads to a change of practices in companies in the network. Research has emphasised the role of collaboration for innovation in the tourism industry (Pavlovich, 2001; Sørensen & Fuglsang, 2014). Innovation can be understood as a novel idea implemented in practice (Fuglsang, 2010; Jernsand, Kraff & Mossberg, 2015). Tourism companies must often collaborate with external partners to innovate (Sundbo, Sørensen, & Fuglsang, 2013), given the limited capacity of many small and medium-sized firms (SMEs) (Novelli, Schmitz, & Spencer, 2006) and the common “destiny” of being linked to a specific locality (Hjalager, 2010). While collaboration in tourism can be conceptualised on different levels (Høegh-Guldberg & Fuglsang, 2016), policy-mediated business networks have received considerable attention for facilitating cooperation, innovation and economic growth (Dredge, 2006; Hall, 1999). These networks “shape policy making, issue identification, communication, sharing of resources and collective action” through a dialogue between public bodies and industry (Van Der Zee & Vanneste, 2015).

CONTACT Olga Høegh-Guldberg  ohoeghguldberg@gmail.com  Høgskolen i Innlandet (Inland Norway University of Applied Sciences), Druehaven 45, 1tv. Valby 2500, Denmark

© 2018 Informa UK Limited, trading as Taylor & Francis Group

The innovation potential of a network for its members has been seen mainly as a consequence of network organisation. This is described in two schools of literature. According to the first school, the formation of a network structure is crucial for knowledge flow, and the innovation potential of the network for a member company therefore depends on the company's network position (Baggio & Cooper, 2010; Burt, 2000). The second school emphasises the relationships between network members who share common practices, and the innovation potential of the network for a company therefore lies in the process of shared learning (Brown & Duguid, 1991; Lave & Wenger, 1991). These two schools of literature align with perspectives of networks "as channels" and networks "as communities", respectively (Newell, Robertson, Scarbrough, & Swan, 2009). While both perspectives identify ways of developing and sustaining network organisation and network relationships to facilitate network innovation, they assume that companies are the units forming the network and largely overlook how network innovation affects the member companies' practices.

To fill this research gap, the present study relies on existing notions of the spread of innovation: imitation, diffusion, translation and adaption (Callon, 1986; Hartley, 2005; Kinnunen, 1996; Rogers, 1983). This study is generally consistent with the notions of translation and adaption in that network members are not passive adopters but actively adapt an innovation. Emphasising the implementation process, these notions, however, fail to address how an innovation becomes integrated into a company's ongoing practices (Eriksen, 2015), which are developed over a long period of time and are "conservative and resistant to change" (Brown & Duguid, 1991, p. 40). Therefore, the study employs a practice-based approach (PBA) (Brown & Duguid, 2001). This is a scholarly tradition that considers coherent forms of human activity, called practices, within and across organisations, oriented towards some purpose. The current study suggests that in a deliberation among network members, companies form an image of the future that guides change through the continuous integration of the constitutive elements of practice (Pantzar & Shove, 2010). This process explains the role of network innovation in the member companies, called mirroring, inspired by Michel Foucault's mirror metaphor.

This paper is devoted to developing the mirroring perspective on the spread of network innovation by addressing the following research questions:

- (1) *How can we understand the process by which business network innovation emerges and spreads to network members?*
- (2) *How can the mirroring perspective add to previous understandings of the spread of innovation, such as translation or adaption?*

The current research employs an explorative study of two tourism business networks to address these questions.

Theoretical background

The theory section begins with a discussion of existing notions of the spread of innovation including a definition of the process, the object of innovation, the elements and the context of the spread process. The description of the notions is also supplemented by examples from the tourism research. Then, the basis for the PBA to explain the spread

of innovation from a network to network members is described. The section closes by suggesting the mirroring perspective for the spread of innovation in the network-company context, which is summed up together with other perspectives in [Table 1](#).

Existing notions of the spread of innovation: imitation, diffusion, translation, adaption

The phenomenon of the spread of innovation relates to the search for explanations of social change (Kinnunen, 1996). Gabriel Tarde articulated the cross-disciplinary movement of the term *imitation* in the innovation context in *The Laws of Imitation*, published as early as 1890 (Djellal & Gallouj, 2014). To explain the general law of social change, Tarde viewed the upper class as a generator of inventions and others as imitators. “People imitate beliefs and desires or motives that are transmitted from one individual to another” (Kinnunen, 1996, p. 433) by copying or contacting (Taussig, 1993). The French school of sociology that Tarde belonged to viewed the process of imitation in a societal versus individual context – that is, as dependent on a great number of human interactions (Kinnunen, 1996). In the tourism context, the process of innovation by imitation or “creative imitation” (Hoelzl, Pechlaner, & Laesser, 2005) is common given the ease of learning about the products of other tourism companies (Hall & Williams, 2008) and simplicity of some of tourism innovations that are often non-technological (Sundbo, Orfila-Sintes, & Sørensen, 2007). The ease of learning and copying by observation (Weidenfeld, Williams, & Butler, 2010) in a “predominantly unregulated industry” (Braun, 2003, p. 240) with many SMEs that are primarily focused on everyday tasks may explain why innovation systems in tourism are characterised as “non-existent” (Sundbo et al., 2007). Some scholars suggest that the intellectual property in tourism can be remedied by “actively devoting effort and resources to getting others to use them, on suitable terms” (Baumol, 2003, p. 435) and thus, changing the “atomistic culture of tourism firms” (Braun, 2003, p. 240).

Everett M. Rogers suggests the notion of *diffusion* in *The Diffusion of Innovations* (1962). Here, innovation is seen as a problem-solving response in a fast-changing environment: “Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system” (Rogers, 1983, p. 5). Communication is the two-way process of creating, sharing and understanding information (Rogers, 1983, p. 5). The term diffusion is mainly applied in societal and sectoral contexts. Thus, innovation diffusion in tourism can be understood as more purposeful and coordinated process of knowledge dissemination with industry-specific sources, mechanisms, channels, and outcomes (Braun, 2003; Smerecnik & Andersen, 2011; Weidenfeld et al., 2010). Knowledge transfer can be particularly important for the companies in a single destination as they depend on each other in delivering good experiences to tourists (Baggio & Cooper, 2010). Cooperation within and across destinations widens the innovation horizon in terms of types of stakeholders involved in innovation diffusion, i.e. “labour mobility, inter-firm exchanges and ‘knowledge brokers’” (Weidenfeld et al., 2010, p. 609). Recent research has recognised tourism as a part of a “very innovative” experience sector with the increasing importance of technological innovation (Sundbo et al., 2013). However, tourism research also highlights social, cultural and organisational obstacles to knowledge diffusion suggested by the innovation diffusion perspective (Rogers, 1983). These obstacles are often related to imbalanced innovation capacity of tourism firms (Hjalager,

Table 1. Different perspectives on the spread of innovation.

Process	Notion's origin	Meaning	Innovation is driven by	Elements of innovation process	Context	Examples from tourism research
Imitation	G. Tarde (Tarde, [1903] 1962)	The process of imitating or copying	Beliefs and desires or motives	Society, interactions, individual	Societal	Hoelzl et al. (2005), Weidenfeld et al. (2010)
Diffusion	E.M. Rogers (Rogers, 1983)	The process by which an innovation is communicated	Novel idea, practice or object	Communication channels, time, social system	Societal	Braun (2003), Smerecnik and Andersen (2011)
Translation/travelling	M. Serres and M. Callon/Czarniawska (Callon, 1986)	The process of transformation and transference	Novelty expressed in a physical category, but also ideas, practice, etc. when enacted or articulated	Time, space, social group	Organisational/network	Jóhannesson (2005), Fadeeva (2005)
Adaption	e.g. J. Hartley, T. Greenhalgh (Greenhalgh et al., 2004; Hartley, 2005)	Spread of successful practices and their adaption/adaptation	Successful practices in various categories: product, process, service, strategic, rhetorical, governance	Practices, context, location, time (often collaboration)	Organisational	Fuglsang and Eide (2013)
Mirroring (developed based on M. Foucault's metaphor of a mirror)	M. Foucault (Foucault & Miskowiec, 1986):	The process of reflexivity leading to practice reconstitution	Image of the future, innovative ideas	Network and company practices (where the key elements of practice are image, resources and skills)	Network	

Kwiatkowski, & Østervig Larsen, 2018, p. 5), which may hinder knowledge transfer when “firms do not tap into knowledge resources and do not access wider markets and network associations”.

The notion of *translation* is associated with the work of Michel Serres and Michel Callon (Callon, 1986). It is “not merely linguistic”; the process of translation can be applied to knowledge, people or things, and it is associated with transformation and transference (Czarniawska-Joerges & Sevón, 2005). Thus, the emphasis is on the physical process of the travel of material categories and less on the result. “A practice or an institution cannot travel; they must be simplified and abstracted into an idea ... and therefore converted into words and images” that must be further embodied (Czarniawska-Joerges & Sevón, 2005, p. 9). The notion of translation in a social group suggests that “[actors’] identities and their wishes are all constantly negotiated during the process of translation” (Callon, 1986, p. 220). This approach has been applied mostly in the organisational context. Following the origins of the notion, the translation perspective is discussed as a part of Actor-Network Theory (ANT) in tourism research (Jóhannesson, 2012). This implies a fundamentally different view on tourism that focuses on “relational materiality of the social world”, where the translation perspective “casts light on how tourism happens in place through hybrid network practices of different actors” (Jóhannesson, 2005, p. 134). The translation perspective is very broad as it characterises all the communication between manifold human and non-human actors that are “a potential subject to change” in “diverse forms of tourism spatiality” (Jóhannesson, 2005, pp. 133, 140). For example, Fadeeva (2005) who contends that innovation has “a higher chance to emerge within networks than outside of them” offers some instances of innovation in cross-sectoral networking where translation serves the purposes of solving “rather new and unique problems” varying across Scandinavian and European contexts.

A more recent notion of the spread of innovation, *adaption* is mainly used in service innovation research (Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2004) and is often related to creating more public value (Hartley, 2005). This perspective emphasises the spread of successful practices emerging elsewhere to another context, location or period of time (Hartley, 2005, p. 27). Adaption may relate to different types of innovation: product, process, service, strategic and so on. The process of adaption is mainly discussed in the organisational context and often is a result of collaborative relations. Hartley (2005, p. 27) reminds that competitive advantage in the private sector may “restrict the sharing of good practice to strategic partners”. At the same time, openness and knowledge sharing in a destination bound collaboration in tourism may result in bigger joint economic effect. While earlier examples of learning organisations in tourism (Bayraktaroglu & Kutanis, 2003) are considered “an idealized tourism type” (Hall & Williams, 2008, p. 67), recognition of destinations as “constantly adapting to changing situations” has grown considerably (Cooper, 2006, p. 48). For example, Fuglsang and Eide (2013, p. 417) discuss how “the idea of the experience economy ... is turned into practice” in the processes of adaption and modification as a part of network formation and innovation in the context of Scandinavian tourism. Although different notions of the spread of innovation have been developed in different contexts, they share an element of reflexivity in the diffusion process: the process through which actors negotiate their relation to the environment (Archer, 2007; Fuglsang & Sundbo, 2003). The translation and adaption perspectives have replaced the passive position of the imitation and diffusion perspectives regarding the implementation

process: the original innovation is transformed to better fit a given context, rather than copied from one context to another. Nevertheless, both the translation and adaption perspectives overlook that the process of change implies the formation of new practices by gradually integrating an innovation into the company's ongoing practices, which are resistant to change. Here, the PBA can offer a new understanding of the long-term, continuous and complex change process by explicating a set of key elements that must be integrated in a particular way in order to form a new practice (Pantzar & Shove, 2010; Reckwitz, 2002).

Innovation from a practice-based perspective and image as its constitutive element

The use of practice theories in tourism research can provide a more nuanced and dynamic perspective on change, innovation and network formation (De Souza Bispo, 2016; Fuglsang & Eide, 2013; Hoarau, 2014). The PBA in this research conceptualises innovation as an integral part of practice, stressing the interrelation among working, learning and innovating within a community of practitioners (Brown & Duguid, 2001; Wenger, 2000). Further, a business network is conceptualised as a community of tourism practitioners, who through their common experiences and routines have access to both the explicit and tacit dimensions of the knowledge required to perform a practice. More easily than practitioners from different communities, they can share knowledge and develop relevant ideas for innovation that can be integrated with practice (Brown & Duguid, 2001). This may result in incremental, bricolage or ad hoc types of innovation (Brown & Duguid, 1991; Fuglsang, 2010), but also an image of the future that appears more radical at the level of ideas.

The study of innovation can then be operationalised by investigating changes in key elements that, according to the PBA, constitute a practice. However, there is no unified view on what these elements are. Schatzki (2001), for example, argues that doings and sayings form the organisation of a practice by being linked through understandings, rules and mental determination. For Reckwitz (2002), a practice (*Praktik*) consists of interconnected elements of “forms of bodily activities, forms of mental activities, ‘things’ and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge” (p. 249). Antonacopoulou (2008) argues that the “embodiment of practice” can be defined by the categories of practice, practitioners and purpose of the practice. Warde (2005) states that “a practice has a set of established understandings, procedures and objectives” that define its “trajectory or path of development” (p. 139). Thus, the integrity of practice “necessarily depends on the existence and specific interconnectedness of these elements”, and practice “cannot be reduced to any one of these single elements” (Reckwitz, 2002, p. 250).

While scholars stress that practice comprises several interconnected elements, they agree that one element is symbolic, such as the mental determination (Schatzki, 2001), mental activity and understanding (Reckwitz, 2002), the purpose of practice (Antonacopoulou, 2008) or its objective (Warde, 2005). This element is defined as shared goals in the community of practice literature (Newell et al., 2009).

Inspired by Pantzar and Shove (2010), the argument in the current study is that the category of *image* must be combined with *material* (hereafter, *resources* to suit the purposes

of this study) and *skill* to constitute a practice. Instead of focusing on a tangible innovation result – be it a product, process, managerial, management or institutional innovation (Hjalager, 2010) – the research adopts a more integrative view, focusing on generic ideas of innovation to show how these ideas are integrated into member companies' practices. Thus, the research supports the argument that through people's engagement in "practising" a practice, innovation can be seen as a continuous enactment of innovative ideas that leads to the recombination of elements of a practice and, as a result, to a new practice (Antonacopoulou, 2008; Pantzar & Shove, 2010).

Mirroring: spread of innovative ideas in the network context

This section develops the perspective of mirroring to describe the spread of innovation from a network to a member company. The mirror metaphor is inspired by Foucault (Foucault & Miskowiec, 1986):

The mirror is ... a utopia, since it is a placeless place. In the mirror, I see myself there where I am not, in an unreal, virtual space ... But it is also a heterotopia in so far as the mirror does exist in reality, where it exerts a sort of counteraction on the position that I occupy. From the standpoint of the mirror I discover my absence from the place where I am ... I begin again to direct my eyes toward myself and to reconstitute myself there where I am. (p. 24)

The relevance of the quotation to this research comprises three dimensions distinguished by Foucault: (1) a real place, (2) utopia, and (3) heterotopia. First, a *real place* is interpreted here as a company's practices prior to its network participation: the daily routines where *resources* are mobilised according to organisational *skills* guided by the company's *image* of the practice. Second, *utopia* describes the innovative network ideas that conjure an image of future tourism practices in a specific destination where networking takes place. Describing these practices, the innovative network ideas are ideal and require an ideal combination of resources and skills to be implemented. Lastly, *heterotopia* is a space created by counteraction of the utopian image of future tourism practices to the real place practices of a company open to new ways of practising. It suggests "novel combinations of existing elements" (Pantzar & Shove, 2010, p. 450) of resources, skills and image to constitute a new practice.

The mirroring process, where the utopian and heterotopian dimensions interact, is a process of reflexivity, which according to Foucault, leads to a reconstitution of how things are perceived and, crucially for our understanding here, can be used by company actors to reshape the current state. Table 1 below summarises existing notions of the spread of innovation and the mirroring perspective.

Methods

Due to the explorative character of this research, a case study methodology is employed. Case studies can offer insight into how the emergence and spread of innovative ideas occur and can assist in obtaining a rich description of complex processes in a network context (Eisenhardt & Graebner, 2007). The strategy of conducting in-depth investigations using case studies can result in new theoretical constructs (Eisenhardt, 1989). The study is based on a processual hermeneutic methodology, where the process and context are

important (Alvesson & Sköldbberg, 2000). This methodology implies interactional perspective – that is, a dialogue between the researcher and a practitioner – which explains why interviews are the main data collection method. This method allowed enquiry into the experiences of network practitioners in the context of network interactions over time, or the history of network processes (Halinen & Törnroos, 2005), and the practitioners' reflections on the role of network processes in their organisational practices.

Two cases of tourism business networks are used, one in Northern Norway (Opplævesnettverk Nordland, hereafter ON) and one in Eastern Norway (Snowball, hereafter SB), established in 2011 and 2010, respectively. Selection criteria were as follows: (1) networks had to be successors to an innovation project to ensure that they worked explicitly with innovation; (2) the networks had to differ from each other in terms of membership (only businesses, or also research and development (R&D) and public representatives); location (different destinations and practices); and management (internally or externally hired).

The two networks are spinoffs of the Arena Programme by Innovation Norway,¹ aimed at promoting innovation in business and industry through collaboration between businesses, knowledge and R&D institutions and the public sector. The reorganised business networks include primarily tourism companies; SB sustained the membership of R&D and public sector institutions after Arena. ON is a rather small network managed by the leader of a member company, while SB has an externally hired manager. Both networks are policy-mediated meaning that the networks need to fulfil certain requirements of public bodies that often fund network activities.

Data were collected from interviews with representatives of tourism businesses, but also with the networks' managers (also R&D and the public sector in SB) to provide a more objective perspective on the network processes and innovation work. The interviews represent retrospective reconstructions of events and experiences by informants. These data are supported by factual data from application documentation, reports and online publications. The data were collected in two rounds from SB (winter 2013 and winter 2016), but in only one round from ON (summer 2013), due to network discontinuance. The rationale for the repetitive data collection is the processual nature of the inquiry into the change of tourism practices over time. Twenty face-to-face interviews lasting between 45 minutes and 1.5 hours were conducted. The types of practices explored and the distribution of informants are presented in Table 2 (company names are anonymised and hereafter coded as ON1 ... ONn and SB1 ... SBn).

The selection of informants was based on their involvement in network activities from the moment of the formation of the current spin-off networks to the moment of data collection. The chosen company informants are either managing or marketing directors.

The first round of interviews was conducted inspired by Flanagan's critical incident technique, which sheds light on both objective events and subjective experiences (Fuglsang, 2017). It was operationalised by asking informants to share their experiences of how their participation in the network had changed the company's practices. While being open to data for inductive category development (Merriam, 1998), this study is inspired by the theoretical perspective of PBA. Methodologically, the PBA looks upon network practices as formed by overlapping practices of network members, implying a dual unit of analysis of network and network member and the relationship between the two in the process of network practice (Nicolini, Gherardi, & Yanow, 2003). In the process of analysis, the

Table 2. Data collection, number of interviews, types of practices (first round/second round).

Round 1(2013)	Types of practices, ON	Number of interviews	Types of practices, SB	Number of interviews
Businesses	Rafting practices	1	Amusement park practices	1
	Museum and sightseeing practices	3 (3 companies)	Museum and sightseeing practices	1
	(Small) event practices	1	Winter sport practices	1
	Management	1	Management	1
Network management				
Total (2013)		6		4
Round 2 (2016)	Types of practices, SB			Number of interviews
Businesses	Amusement park practices			1 (follow-up)
	Museum and sightseeing practices			1 (follow-up)
	(Winter) event practices			1
	Winter sports practices			1
	Cultural event practices			1
Network management, R&D, public authorities	Management			1
	Research and development			2
	Public authorities			2
Total (2016)				10

researcher focused on the episodes where network activities found concrete implementation in the practices of network members. Such episodes were often not recognised as innovation but rather as experimenting with network ideas, knowledge and/or resources. Thus, the inductive analysis allowed for developing categories of practice, among them network resources, knowledge and innovative ideas. The latter is understood as mental images of how practices can be different. Cross-case analysis supported the importance of the developed categories, which appeared to show similarities with PBA elements of practice. Further, subcategories (e.g. financial resources in the resources category) were developed. Already in the first round of interviews, data suggested examples of how network ideas were brought into and implemented by companies. Data also suggested areas of change, which showed a good fit when compared with strategic network areas registered in the networks' documentation. Network documentation also flagged network activities relating to strategic areas constituting network vision.

The second round of data collection (only SB) was intentionally built on semi-structured questions to validate the developed categories and subcategories. Emphasis was placed on innovative network ideas and their implementation in the companies' practices. The data allowed interpreting network vision as companies' ideas, which through negotiation and compromise, formed a destination image of a common workspace in the future, a utopian category. The three main elements of network practice were now identified as resources, knowledge and network vision, where, according to the data set, the first two categories facilitated the development of the ideas that formed and further operationalised the vision. These categories seemed well accommodated by Pantzar and Shove's (2010) framework of the elements of practice, following which the network vision was conceptualised as network image.

The network image posited network innovation when brought into the companies' practices, which, unlike the image, are ongoing and real. The change in the companies' practices that resulted from acting on the network image demonstrated similar patterns regardless of the type of company practice, such as the area of change, actions

implementing the process, duration and so forth. The generalised categories of utopian network image and real place practices of the companies allowed relations between network practice and changes in companies' practices, based on Foucault's mirroring concept (Merriam, 1998).

Empirical findings

First, this section briefly describes the formation of network resources and skills as premises for the formation and further development of a future-oriented image of tourism practices shared by the network community. Then it shows how the ideas that constitute this image are enacted by network members through the mirroring effect, leading to practice reconstitution.

Formation of the constitutive elements of network practice: towards the utopia of a mirror

To become established, a network, as a practice on its own, requires the formation of its constitutive elements: resources, skills and image. While all elements can be a source of innovation, the focus here is on the origin of innovative network ideas that constitute a complex image of network practices. All three elements of practice of the network are based on those of network members and beyond and are continuously transformed thereafter.

Formation of resources and skills as premises for the development of innovative network ideas

Essential *resources* are the *natural landscape, climate and historical and cultural artifacts* (hereafter, destination resources) that differ from destination to destination and tie network members by a single workspace. ON is located in the county of Nordland, known for its breathtaking beauty – the sea, the Northern Lights – and local historical and cultural heritage. SB is located in Lillehammer and Gudbrandsdalen, known best for its mountains and winter sports and events, but also as a centre of Norwegian culture.

Financial resources are also critical. Networks create and continuously refill a common resource pool. Such a pool includes both internal resources (e.g. annual member fee) and external financing, for example, by Innovation Norway, the Regional Council, the county, municipality or programmes of the Norwegian Research Council. These resources help sustain the network organisation and management and assist in implementing network activities and projects. Projects often also require a financial contribution from participants. Through the networks, members learn also about financing opportunities for individual or group development needs.

In addition, network members share their own *material resources* or resources they can access through their membership in other organisations, such as facilities and equipment.

Finally, having *network status* can be considered a type of resource, from which companies can benefit when they establish relations or work with third parties in industry, public organisations, or national or international partners.

Network skills describe the synergy of human resources mobilising other types of network resources, based on the knowledge, competencies and skills of network members as well as learning within and outside of the network. First, the network community must form a common workspace: “It takes some time to get to know each other, to be confident in each other, to trust each other, to feel free and discuss your ideas” (ON2). Then, through the learning process that takes place in network meetings, workshops, training initiatives, product/experience testing, study tours or conferences, companies come to identify skills that can improve their practices. Practice-specific skills are company-specific, yet they are shared because of tourism- and destination-specific knowledge.

Within the network, member companies learn from each other, from managers and professionals hired into the network (e.g. a salesperson in ON or an arrangement coordinator in SB), and from R&D in the SB case. The variety of network members, in terms of their knowledge, mindsets and ambitions, and not least organisational cultures, explains the various degrees of novelty, knowledge complementarity and learning capacity: “in our museum, we try to sell our products more than before. We do not sit there waiting for customers to come; we try to be out there and cooperate with others” (ON2). This implies the novelty of the commercial mindset in museum practices.

Beyond the network, members learn from public organisations, consulting companies, financing organisations, other networks and destinations nationally and internationally, R&D institutions and other industries: “We [the network] can spend quite a lot of money on bringing the best competence into the network” (ON1). This implies an opportunity to get both more general industry-related and practice-specific knowledge from beyond the network. This knowledge brings new ideas about how separate companies and the network as a whole can develop their practices. Examples of development areas suggested by the data are

- Development of new tourist experiences and new approaches to existing products within firms
- Development of new and/or combination of existing experiences by several companies together
- Measuring quality of products/experiences and finding ways to improve it
- Strengthening communication about authenticity and storytelling based on historical and cultural heritage of the destination
- Marketing and sales: from new market segments nationally to development of new international campaigns

Network resources and skills are being continuously developed after network establishment. The only type of resource that is essential for tourism practices but needs to be sustained with least possible transformation is natural resources.

Formation of a future-oriented image of tourism practices within a destination as a source of innovative ideas

To outline the ambitions of network members and to create a network’s marketing statement, network image is indeed central. Such image is also important in order to secure

network financing in the initial network development phase (spelled out in application documents). However, the data demonstrates another role of network image as a constitutive element of network practice guiding the development of practices of the future within a destination. When outlining a future-oriented image of tourism practices during early network establishment, network members answer the initial questions of who they are and who they want to be together. It is important to emphasise that the natural resources essential to most tourist activities define both opportunities and limitations in the development of the tourism industry. Although limitations can eventually be overcome, destination image embraces tourists' knowledge about a destination and takes time to be changed. An example is a strong image of a winter destination in SB. Therefore, when negotiating what the network should look like in the future, network members negotiate two main points:

- A. They negotiate development ideas that stem from individual business needs. Some of these are emerging needs of the companies, while others originated, for example, from prior cooperation within the frame of the Arena Programme. Development ideas are directly connected to the companies' daily practices and express how companies' practices can develop towards the desired tourist images of activities offered by the companies. These tourist activities are grouped by the networks into focus areas central to the formation of the future-oriented image of tourism practices:
 - (1) culinary adventures, adventures at sea, historical adventures, Lofoten adventures and adventures with a pulse in ON
 - (2) family experiences year-round, world-class winter sports, events as a travel occasion and international round trips in the summertime in SB

The focus areas are articulated in application and reporting documentation and marketing materials.

- B. Development ideas need to accommodate the desired destination image, based on the experience and knowledge of network members as well as other tourism practitioners nationally and internationally, climate and economic prognoses for the regional tourism industry, as well as developments in tourism more broadly. While one destination is relatively obscure and accommodates members' varying practices, a second destination has a strong image and requires larger compromises to adhere to this image.

The future-oriented image of tourism practices is articulated in the networks' visions:

Up here [Northern Norway] adventure awaits right outside the door. (ON)

Europe's most complete region for winter sports and experiences. (SB)

While some measures in separate focus areas that constitute the future-oriented image of tourism practices are suggested early in network establishment, others are being continuously developed, for example, within the frame of network projects. Both during formation and in further development of future-oriented image of tourism practices, it is important

that network members, rather than management or other stakeholders, formulate development needs: “If no company owns the idea, then you have an idea that doesn’t belong anywhere” (SB2). The development of measures towards the future-oriented image of tourism practices is enhanced by companies’ reflections on their own practices in light of the new knowledge and resource potential of the network. Having acknowledged their own strengths and needs for further development, companies bring these ideas into the network. “To be a network member is quite special: one has to define her own place and her own goals and also the common goals” (ON2). This highlights the importance of identifying and attributing the most relevant network resources and skills to internal company practices.

Similar characteristics of the future-oriented image of tourism practices formed in the initial phase of network development in both cases are that they

- are clearly stated and made available for all network members and financing organisations
- are visionary, but often concretely articulated (e.g. two-thirds of growth should come from international markets by 2020 [SB])
- are understood and shared by members relative to the established network platform and available resources
- represent single members’ practices only to some extent (in terms of seasonality, novelty, quality, etc.)
- unite different practices of the companies by focusing on the uniqueness of destinations and communicating different (for some, new) concepts (compare “adventure”, understood as “experience”, and “experiences”)
- aim at extending the season and offering year-round experiences
- emphasise events as means of promoting destinations
- are operationalised into a concrete action plan through the strategic areas: product/experience development, marketing and sales, network activities (SB, ON), sustainability, sport and facility development (SB)

Towards practice reconstitution: enactment of the future-oriented image of tourism practices through the mirroring effect

Most informants emphasised the need to see one’s own practice in the bigger destination picture. They argued that a tourist who has had a good experience of one attraction may still have a bad experience of the destination as a whole: “as long as people outside our business are not doing their part of the development, they are slowing us down” (SB1). Having formed a future-oriented image of tourism practices in the initial phase of network development, networks identify a development path and must integrate network resources and skills towards such an image. As elaborated below, it is indeed the companies that enact and maintain network practices by integrating the future-oriented image of tourism practices into the company’s practices.

Often when it comes to competence courses or seminars, the companies send one or two participants from the staff, and then they get some competence building, new ideas, new energy. Then they come back [to their company] and the business culture has not necessarily changed. (SB manager)

In this way, network management opens the discussion about the resistance of company practices to network change. To elaborate on the mirroring process that allows the future-oriented image of tourism practices to lead to new ways of practicing, company practices are divided into different areas of focus. The analysis is structured to first describe the strategic area of the future-oriented image of tourism practices being integrated and how companies use network resources and skills in relation to this, and ends with the actions that describe the mirroring process (systemised in Table 3). The second part of this section sums up the main characteristics of the mirroring process.

Mirroring processes in different focus areas

(1) Museum and sightseeing practices: ON2, ON3, ON4, SB2

We [a museum] have had it [a historical walk] for many years ... Now we have made it more personalised, telling the story of a well-known local photographer ... Now we will try this

Table 3. Mirroring process in different types of practices.

Type of practice (companies representing it)	Strategic area of the future-oriented image of tourism practices mirrored by the companies	Examples of new resources/skills applied	Description of mirroring process
1. Museum and sightseeing practices (ON2, ON3, ON4, SB2)	<ol style="list-style-type: none"> 1. Experience development (change/new) 2. Marketing/sales (different mindset, new market segment) 3. Network activities Also: Improved service quality	Resources: Destination-specific, financial, status Skills: project facilitation, management and external professional facilitation, increasing internal competencies	connect (elements), try/see/take further, started to change (our mind) also: develop, adjust, try to be better, will test, review, better, make more
2. Rafting (ON1)	<ol style="list-style-type: none"> 1. Experience development including clear concepts and improved quality 2. Marketing and sales, packaging 3. Network activities 	Resources: destination-specific, financial, status Skills: externally hired professionals	bettering working developing putting together
3. Winter sports and events practices (SB3, SB4, SB5)	<ol style="list-style-type: none"> 1. Experience development including clear concepts and improved quality 2. Marketing and sales, packaging 3. Network activities 4. Sport and facility development 	Resources: destination-specific, financial, material Skills: project facilitation, close cooperation with other network members	from "there was nothing" to "[now] it is the best" [seen as] not fragmented working better together also: increasing, adding, thinking
4. Amusement park practices (SB1)	<ol style="list-style-type: none"> 1. Experience development 2. Marketing and sales, packaging 3. Network activities 	Resources: destination, financial, status Skills: project facilitation, increasing internal competencies	increasing have developed make it possible gradually found selling together
5. Cultural event practices (SB6, ON5)	<ol style="list-style-type: none"> 1. Experience development 2. Marketing and sales, packaging 3. Network activities 	Resources: destination-specific, financial, status Skills: project facilitation	trying to make developing have developed work

new city walk and then a new concept in Bodøsjøen ... Then we will see what kind of results and experiences we will have, and take that with us into developing new concepts ... It [the network] has started to change our mind in how we think about the products we offer and how we sell them. (ON2)

The quotation describes the change of a well-established experience from a more conventional and one-for-all learning process, to one that is more interactional and dramatised, telling a story and often based on specific events or themes. This type of change can be attributed to the experience development area of the future-oriented image of tourism practices as well as to the development of marketing and sales, resulting in new or significantly changed experiences and expectations to attract new customer segments. Innovative ideas are developed further within companies and in themed network projects and form specific concepts based on future-oriented image of tourism practices. Informants emphasised the importance of support from network management and externally hired professionals in adjusting new ideas to company practices. The alignment of the museum's practices with the future-oriented image of tourism practices required an increase in internal competence in experience-based tourism and creation of a new working group to discuss new knowledge (ON2). Network resources were used for marketing. The mirroring process was shown by the company's connecting the new elements of practice in pilot projects that facilitated further development. Informants described mirroring using the language of action and change: "try", "see", "take with us" and "started to change (the mind)", "develop", "adjust", "better" (ON); "test", "review", "better" and "make more" (SB).

2) Rafting practices: ON1

The change was discussed rather broadly in the frame of network activities, because the company's manager is also the network manager:

We work with bettering the quality of what we offer, which means that we are working with storytelling, we are working with the quality of food ... boats, buses, the guides. ... And we are working with the concepts, to be clearer about our concepts ... We are developing half-day, whole-day and two-day programmes together ... putting all these bits and pieces together so it [becomes] ... seamless, smooth. (ON1)

This quotation describes a change in experience development and marketing and sales. In terms of company practices, the manager discusses recently introduced land-based activities. The network's financing and status are seen as the most important resources. First, the network hired a full-time paid salesperson. Second, network status became essential to ensure strategic cooperation within the destination and strengthen the company's position in sustaining existing collaboration beyond the network. The network provides a position within the county administration, but also in the market, when attracting new customers through tourism agencies or new collaboration agreements to increase the MICE (meetings, incentives, conferences, exhibitions) segment. Network management worked closely with member companies, sharing competencies in new experience development and hiring external professionals to facilitate the work. The mirroring process was described as continuous "bettering", "working", "developing" and "putting together".

3) Winter sports and events practices (at both permanent resort locations and temporary event venues): SB3, SB4, SB5

While this practice is central to the overall future-oriented image of tourism practices (SB), companies demonstrate the process of mirroring in its separate focus areas:

Three years ago, there was nothing there ... Now we have the ski movie for the oldest children (automatic filming), we have the new restaurant, we have alpine skiing, we have parks, we have cross-country, we have a children's area ... It is the best family area in Norden or Scandinavia. (SB3)

This quotation demonstrates how a winter resort destination has developed family experiences, which required rather large investments of internal resources and close cooperation with other companies focused on family experiences, and refers to the experience development area of the future-oriented image of tourism practices. Building on other focus areas of the future-oriented image of tourism practices – namely, year-round family experiences and events as a travel occasion – SB3 has also been driven by the network goal to extend the season and gradually initiated a number of summer events, such as downhill biking. This is a radical change in respect to company image, skills and resources and is facilitated through network projects. Expanding the variety of experiences and working with new market segments require respective developments in marketing and sales.

It was also emphasised that “because of it [the network], they [tourists] are more and more seeing the destination [as] not [being] fragmented. It is working better together, information wise, ticket wise, travel wise. Everything is smoother” (SB3). This quotation describes mainly the information and marketing organisation of the destination as a result of networking, but it also implies a joint planning process and negotiation of time overlaps between different events (SB4). Regarding temporary event venues, the future-oriented image of tourism practices has a more moderate effect, limited to outsourcing the competencies of the network management team and sharing equipment with other network members (SB4). Yet in SB5, where the company's event coordinator was also a leader of one of the network projects, participation in network arenas and network status facilitated a significant increase in the number of events run by the company: “When I started, we had, like, three small events running each year. In 2015, we had 16 events.”

Mirroring was shown as a gradual and often radical change from “there was nothing” to “[now] it is the best”, “[seen as] not fragmented” and “working better together”.

4) Amusement park practices: SB1

The Winter Park is quite different from what we have in summertime ... It was a major event for us, enabling us to focus on increasing our season by adding winter. (SB1)

This quotation implies the development of a radically different experience than those describing prior company practices, the content of which is “a result of the project in SB” (SB1). The company realised the need to focus “on the winter season, because then there are many tourists in the area” (SB1) by both participating in winter projects, such as Winter Festival, and developing winter season practices. “It was a fantastic test [because the temperature rose from -18 to $+13^{\circ}\text{C}$] ... So, the project leader was shocked

... But it has gradually found its way right and with better numbers” (SB1). The introduction of a new winter experience was described as a process of trial and error over a long period of time, based on a combination of internal and network resources, before the company acquired proper skills and competencies to make it profitable. The new practice also led to organisational change that involved hiring new full-time employees. In addition, the organisational change – namely, the establishment of a marketing department – led to a “major shift” in the company’s marketing and sales:

[A] new strategy based on selling holidays [combining own attraction with several other attractions, a place to stay and so forth] instead of selling tickets [to a particular attraction] ... we included two or three days thinking, or even four days thinking ... (SB1)

The quotation describes a new strategy for destination marketing and sales that involves sharing tourists and opportunities with other companies by promoting packaged offers.

Mirroring was described by use of the terms “increasing”, “have developed”, “makes it possible”, “gradually found” and “selling together”.

5) Cultural event practices (events and performances of a cultural and artistic nature):
ON5, SB6

It has been a very nice project ... where culture companies ... are trying to make new packages for the market, developing their individual products so that they fit the international market too. If we [SB6] go about three years back, we didn’t have many international brochures or displays or anything, and during these three years, we have developed so that the international market ... feels that is something for them too. (SB6)

This quotation demonstrates that by participating in the network project, the company has gradually changed its practices in the experience development area of the future-oriented image of tourism practices, specifically towards internationalisation, with respective changes in marketing and sales including cooperation and the packaging of cultural experiences. Network resources allowed for hiring a salesperson for the project. Through the project, the company acquired the necessary skills and competencies to work with international guests. The informant noted that another regional network with experience packaging cultural events had also contributed to the project. Mirroring was described in the phrases “trying to make”, “developing”, “have developed” and “work” (SB).

Main characteristics of the mirroring process

The empirical examples above can be systemised into a set of points characterising the mirroring process:

- (1) It is enabled by the prior process of purposeful formation and negotiation of a future-oriented image of tourism practices by the network community according to the companies’ development needs
- (2) It is through company practices resistant to change that the network’s innovative ideas are enacted
- (3) Mirroring requires a transition of network ideas from a company’s network representative to other employees who will implement the change

- (4) Proper understanding and support by a company's leadership, "who really want to make a change" (SB3), is essential
- (5) The process of integrating network skills and resources often requires extension of internal skills and resources
- (6) Change in companies' practices is described as a long-term and gradual process, often including pilot projects and trial and error
- (7) Companies focus on matching their own concepts with the future-oriented image of tourism practices and communicating them to the market by working closely together in the network
- (8) The enactment of the future-oriented image of tourism practices requires continuous facilitation, for example, through network management or a project facilitator
- (9) Enacting the shared vision on the company level requires a balance between the company's individual work and network activities
- (10) The process of reconstitution often leads to multidimensional change in a company
- (11) The degree of change in company's practices varies from incremental to radical

Discussion

The discussion at hand concerns the analysis of how the process through which business network innovation emerges and spreads to network members can be understood and how the mirroring perspective adds to previous understandings of the spread of innovation, such as translation or adaptation.

Emergence and spread of business network innovation

The study suggests that the emergence and spread of business network innovation can be understood as the formation process of the future-oriented image of network practices and its further enactment by member companies, leading to the reconstitution of companies' practices. The findings support the viability of Foucault's mirror metaphor to describe network innovation, however with somewhat different interpretations of its dimensions. The dimension of utopia that is meant to describe a network "in a perfected form" does not initially exist because its existence would mean a "direct or inverted analogy with the real space" (Foucault & Miskowiec, 1986, p. 24) of a network, which is understood as a practice that first needs to be formed. In other words, a meaningful image of the ideal future is created by the companies in the process of network interactions over a period of time. Thus, the findings support the emergent nature of communities: "their shape and membership emerges in the process of activity, as opposed to being created to carry out a task" (Brown & Duguid, 1991, p. 49).

The contribution of this study is in bringing forward the understanding of tourism as practice (De Souza Bispo, 2016) and by operationalising it as changing combinations of the constitutive elements of practice. Such a framework allows for learning about the transformation of practices (Pantzar & Shove, 2010) that, in the current study, is shown as a cumulative process of network formation where the elements of practice are added on and then continuously developed. In the settings of tourism network practices, the *material* element appears to be broader than facilities and equipment, including also

destination-specific and financial resources as well as network status as a resource. The findings support the claim that financial resources are essential (Novelli et al., 2006). Network status as a resource can be associated with community identity (Wenger, 2000) as networks develop. Destination-specific resources are crucial and industry-specific (Rantala, Valtonen, & Markuksela, 2011). They define the variety of experiences within a destination, and how they fit together (*image*) as well as the *skills* required to make use of this type of resource. These skills constitute the more tacit knowledge dimension that companies have in common, which is essential for the formation of the network as a community. The element of network skills further develops in network learning within the community and in boundary interactions (Wenger, 2000), and results in new knowledge and innovative ideas for companies, highlighting the difference from the perspective of networks “as channels”. Finally, the *image* that ties together the elements of practice supports the process of “labelling an idea that is broad enough to give meaning to, and pull together, a number of diverse supporters” (Fuglsang & Eide, 2013, p. 417). However, this study shows that the labelling process is not what engages companies in the first place, because the image they form is based on needs and inspiration from the preceding learning process. The future-oriented image of tourism practices becomes a complex and long-term goal that cannot exactly be realised, but that opens another dimension of how company practices can differ from those currently employed (*heterotopia*). The multidimensionality of the future-oriented image of tourism practices suggests different types and degrees of change (incremental and radical).

However, not all changes in practice can be traced back to the mirroring process because the practice of each company is constituted by its own communities, with the focus on day-to-day activities. This further implies that while “[C]anonical accounts of work ... are ... hard to change”, “the actual behaviors of communities-of-practice are constantly changing both as newcomers replace old timers and as the demands of practice force the community to revise its relationships to its environment” (Brown & Duguid, 1991, p. 50). And though one path to revision of a company’s relationships to its environment can be its participation in a network where companies address common challenges by building on the synergies of fellow network members, there are also a number of company-specific issues. As the quote above suggests, novel ideas can come from other than network, internal and external sources. An example can be improvement of a company-specific technology that consumes too much time or handling of a company-specific security measure to meet safety requirements. Change can also come through smaller challenges that are dealt with by practitioners without addressing them to company management, which is also supported by the unified view of PBA on working, learning and innovating (Brown & Duguid, 1991). These sources of novel ideas, which include customers, professional organisations and practitioners themselves, most often lead to a change that is incremental in nature (Fuglsang, 2010).

The mirroring perspective that opens a path to more radical, though continuous change has a number of similarities with a “strategy as practice” perspective (Hendry, 2000). Both perspectives focus on deliberate change through “the detailed processes and practices which constitute the day-to-day activities of organizational life and which relate to strategic outcomes” (Johnson, Melin, & Whittington, 2003, p. 3). But there are certain differences as well. Though both perspectives address the importance of resources,

“strategy as practice” does not emphasise as much the importance of human resources that, based on their competences and skills, mobilise other types of resources and are continuously involved into learning processes within and beyond the companies (i.e. networks). Thus, the mirroring perspective is broader; it brings together different streams of practice research, such as “communities of practice”, “knowing in practice” and “learning as practice” (Gherardi, 2008; Gherardi & Nicolini, 2002; Wenger, 2000). Both perspectives emphasise the micro–macro debate, but from different viewpoints: the micro practices of a company in the “strategy as practice” perspective are seen as leading to organisational strategic outcomes, while in the mirroring perspective they are seen as constituting network practices and leading to development of the practices of network members as well as of networks and regional industry.

The mirroring perspective extends research on network innovation in both the network “as communities” and “as channels” traditions (Newell et al., 2009), as both mainly focus on internal processes of the network, including the implementation of innovation. However, this study suggests that it is not jointly but through changing every company practice that innovative network ideas are enacted. The findings demonstrate that member companies work mainly with the experience development and marketing and sales areas of the network image, facilitated by intensifying interactions with the network. Challenged to overcome almost historically established routines, companies start to develop their own experiences in alignment with network concepts and adjust them to ongoing practices in a continuous process of recombining resources and skills.

A surprising observation about companies largely aligned with the future-oriented image of tourism practices before their participation in the network was that the mirroring process intensified the process of change, and mirroring practices in the separate focus areas of the future-oriented image of tourism practices produced radical change. Another observation is that at least one company in both networks experienced difficulties aligning its practices with the future-oriented image of tourism practices: “I think it is hard to really get some good value out of it” (SB4). However, several reasons explain the minimal value of the network for SB4. First, the company has a long history and was already largely aligned with the network image. Second, the company’s CEO change and its low engagement in network activities may have hampered its implementation of network ideas. This both demonstrates the negative effect of a lack of company leadership support (see main characteristics of the mirroring process) and supports the negative effects of misbalance – as shown in Wenger’s (2000) mode of community belonging through imagination – between “constructing an image of ourselves, of our communities” and “interpretation of our participation” (p. 228).

Comparing the mirroring perspective to the perspectives of translation and adaption

Focused on network and company practices, the empirical findings of this study demonstrate similarities as well as differences between the mirroring perspective and those of translation and adaption. First, differences relate to the broad and inclusive nature of the mirroring process. It is not only applicative, as in translation and adaption – that is, the transformation of an externally developed idea in a specific context in the process of implementation – but is also a *formative process*. The formative nature of the mirroring

process means that ideas are not simply chosen from the external environment but are, together with other elements of practice, *purposefully* developed to be further applied in company practices. Using Foucault's terminology, the mirroring process integrates the process of transition from the "real place" or current practices of a company towards the utopian state of future-oriented network practices as well as the transition from the utopian state towards the heterotopian state, where through a process of reflexivity (Archer, 2007) companies *continuously* implement the network image by enacting it in their own practices. Arguably, the translation perspective, similarly to the mirroring perspective, follows practice-based thinking when describing the transformation of an innovation from abstraction into a more simplified, negotiated idea and the further embodiment of this idea (Czarniawska-Joerges & Sevón, 2005). This study, however, suggests further deliberations on its operationalisation through the elements of practice, which implies a *more detailed* description of the change processes and exemplifies the results of continuous implementation of the elements of practice by member companies. The dynamics of the implementation process or, according to Foucault, practice reconstitution, where companies define which dimensions of the shared vision they want to enact in company practices, distinguish the mirroring perspective from both translation and adaptation, where the focus is mainly on the process of travel and change as an innovation fits to new settings.

The continuity of the implementation process is caused by the *long-term* nature of network innovation: ideas are not immediately and directly translated and applied by a company; rather, they become *an ideal* targeting the innovation process and necessitate the continuous transformation of a company's practices. One reason for this is that practices are difficult to change. Another reason is the complexity and multidimensionality of the future-oriented image of tourism practices. Even though each company can decide which measures to implement and in which strategic area, the potential change becomes multifaceted, which supports previous findings about the bundled nature of innovation (Hjalager, 2010).

Conclusion

From the mirroring perspective, this research explored the process of the emergence and spread of business network innovation to the practices of member companies and how this process can add to understanding of the spread of innovation. This perspective offers a new way of thinking about the spread of innovation in the network-company context, as it captures relationships between network activities, where new elements of practice are formed, and company practices, where these are realised. By operationalising network practices through the elements of resources, skills and image, the study demonstrates how these practices are being formed towards an image of the future (Foucault's mirror). The utopian image suggested ideas about new ways of practising in member companies (heterotopia), the enactment of which, in different types of practices, resulted in a directional, long-term, dynamic process of practice reconstitution facilitated by network resources and skills and leading to different types and degrees of change.

A limitation of the chosen framework may be its oversimplification of this process to three key elements of skills, resources and image, as well as the difficulty of separating

the elements from each other. Further research is needed to test the applicability of the mirroring perspective in other contexts. In addition, further elaborations of the reasons for success and failure aligning company practices with a future-oriented image of practices developed by the network community are needed. Finally, the continuous change of companies' practices may necessitate additional research on the balance between ongoing and new company practices as well as whether and how network members need to preserve their core practices.

This study has implications for network management regarding the bottom-up process of forming a future-oriented image of practices as well as for company management regarding support of transition of innovative network ideas to the company, where they need to be developed, aligned, and continuously facilitated and followed up. Besides, similarly to the "strategy as practice" perspective, the implications of this study support that managers are seen, through managing activities, as able to manipulate deliberate change and use of resources in organisational practices (Johnson et al., 2003). Yet the mirroring perspective is more demanding when it comes to management's devotion to the network, through the active participation and involvement of other employees in network projects to secure the transition of ideas and foster learning across organisational boundaries. The mirroring perspective brings up intangible aspects of practice such as routines, organisational culture and traditions that hamper the implementation of novel ideas. The perspective is, though, less demanding when it comes to implementation of the envisioned state of the future created by the network, since it is not about the strict execution of organisational strategy. Instead, in the heterotopian dimension of the mirror that opens up new ways of practicing, managers together with practitioners can reflect upon what should and can be integrated with the ongoing practices and what should not or cannot be integrated. Generally, the distance between management and employees is blurred since managers are often a part of micro practices in tourism SMEs. The central ideas constituting the future-oriented images of tourism practices of the two networks were accepted by the majority of member companies as built on the companies' needs and continuously negotiated by leaving behind less relevant ideas presented at network meetings. However, data also demonstrated that general non-acceptance of the future-oriented image of tourism practices caused by little engagement in network activities may lead to a network drop-off (ON).

Note

1. Arena Programme: <http://www.arenaclusters.no/the-arena-programme/>.

Disclosure statement

No potential conflict of interest was reported by the author.

ORCID

Olga Høegh-Guldberg  <http://orcid.org/0000-0001-7404-8005>

References

- Alvesson, M., & Sköldbberg, K. (2000). *Reflexive methodology: New vistas for qualitative research*. London: Sage.
- Antonacopoulou, E. P. (2008). On the practise of practice: In-tensions and ex-tensions in the ongoing reconfiguration of practices. In D. Barry & H. Hansen (Eds.), *The SAGE handbook of new approaches to management and organization* (pp. 112–131). London: Sage.
- Archer, M. S. (2007). *Making our way through the world: Human reflexivity and social mobility*. New York, NY: Cambridge University Press.
- Baggio, R., & Cooper, C. (2010). Knowledge transfer in a tourism destination: The effects of a network structure. *The Service Industries Journal*, 30(10), 1757–1771. doi:10.1080/02642060903580649
- Baumol, W. J. (2003). Innovations and growth: Two common misapprehensions. *Journal of Policy Modeling*, 25(5), 435–444. doi:10.1016/S0161-8938(03)00038-3
- Bayraktaroglu, S., & Kutanis, R. O. (2003). Transforming hotels into learning organisations: A new strategy for going global. *Tourism Management*, 24(2), 149–154. doi:10.1016/S0261-5177(02)00061-4
- Braun, P. (2003). Regional tourism networks: The nexus between ICT diffusion and change in Australia. *Information Technology & Tourism*, 6(4), 231–243. doi:10.3727/1098305032781139
- Brown, J. S., & Duguid, P. (1991). Organizational learning and communities-of-practice: Toward a unified view of working, learning, and innovation. *Organization Science*, 2(1), 40–57. doi:10.1287/orsc.2.1.40
- Brown, J. S., & Duguid, P. (2001). Knowledge and organization: A social-practice perspective. *Organization Science*, 12(2), 198–213. doi:10.1287/orsc.12.2.198.10116
- Burt, R. S. (2000). The network structure of social capital. *Research in Organizational Behavior*, 22, 345–423. doi:10.1016/S0191-3085(00)22009-1
- Callon, M. (1986). Some elements of a sociology of translation: Domestication of the scallops and the fishermen of St Brieuc Bay. In J. Law (Ed.), *Power, action and belief: A new sociology of knowledge?* (pp. 196–223). London: Routledge.
- Cooper, C. (2006). Knowledge management and tourism. *Annals of Tourism Research*, 33(1), 47–64. doi:10.1016/j.annals.2005.04.005
- Czarniawska-Joerges, B., & Sevón, G. (2005). *Global ideas: How ideas, objects and practices travel in a global economy (vol. 13)*. Copenhagen: Copenhagen Business School Press.
- De Souza Bispo, M. (2016). Tourism as practice. *Annals of Tourism Research*, 61, 170–179. doi:10.1016/j.annals.2016.10.009
- Djellal, F., & Gallouj, F. (2014). The laws of imitation and invention: Gabriel Tarde and the evolutionary economics of innovation. *Archive ouverte en Sciences de l'Homme et de la Société*. doi:10.3917/reco.684.0643
- Dredge, D. (2006). Policy networks and the local organisation of tourism. *Tourism Management*, 27(2), 269–280. doi:10.1016/j.tourman.2004.10.003
- Eisenhardt, K. M. (1989). Building theories from case study research. *The Academy of Management Review*, 14(4), 532–550. doi:10.2307/258557
- Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1), 25–32. doi:10.5465/amj.2007.24160888
- Eriksen, S. N. (2015). Experience innovation for small food and tourism firms. *Scandinavian Journal of Hospitality and Tourism*, 15(suppl. 1), 83–97. doi:10.1080/15022250.2015.1060721
- Fadeeva, Z. (2005). Translation of sustainability ideas in tourism networks: Some roles of cross-sectoral networks in change towards sustainable development. *Journal of Cleaner Production*, 13(2), 175–189. doi:10.1016/S0959-6526(03)00124-0
- Foucault, M., & Miskowicz, J. (1986). Of other spaces. *Diacritics*, 16(1), 22–27. doi:10.2307/464648
- Fuglsang, L. (2010). Bricolage and invisible innovation in public service innovation. *Journal of Innovation Economics*, 5(1), 67–87. doi:10.3917/jje.005.0067
- Fuglsang, L. (2017). The critical incident technique and everyday innovation. In F. Sørensen, & F. Lapenta (Eds.), *Research methods in service innovation* (pp. 40–59). Cheltenham: Edward Elgar.

- Fuglsang, L., & Eide, D. (2013). The experience turn as “bandwagon”: Understanding network formation and innovation as practice. *European Urban and Regional Studies*, 20(4), 417–434. doi:10.1177/0969776412448090
- Fuglsang, L., & Sundbo, J. (2003). *Innovation as strategic reflexivity*. London: Routledge.
- Gherardi, S. (2008). Situated knowledge and situated action. In D. Barry & H. Hansen (Eds.), *The SAGE handbook of new approaches in management and organization* (pp. 516–527). London: Sage.
- Gherardi, S., & Nicolini, D. (2002). Learning in a constellation of interconnected practices: canon or dissonance? *Journal of Management Studies*, 39(4), 419–436. doi:10.1111/1467-6486.t01-1-00298
- Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P., & Kyriakidou, O. (2004). Diffusion of innovations in service organizations: Systematic review and recommendations. *The Milbank Quarterly*, 82(4), 581–629. doi:10.1111/j.0887-378x.2004.00325.x
- Halinen, A., & Törnroos, J.-Å. (2005). Using case methods in the study of contemporary business networks. *Journal of Business Research*, 58(9), 1285–1297. doi:10.1016/j.jbusres.2004.02.001
- Hall, C. M. (1999). Rethinking collaboration and partnership: A public policy perspective. *Journal of Sustainable Tourism*, 7(3-4), 274–289. doi:10.1080/09669589908667340
- Hall, M. C., & Williams, A. (2008). *Tourism and innovation*. London: Routledge.
- Hartley, J. (2005). Innovation in governance and public services: Past and present. *Public Money and Management*, 25(1), 27–34. doi:10.1111/j.1467-9302.2005.00447.x
- Hendry, J. (2000). Strategic decision making, discourse, and strategy as social practice. *Journal of Management Studies*, 37(7), 955–978. doi:10.1111/1467-6486.00212
- Hjalager, A.-M. (2010). A review of innovation research in tourism. *Tourism Management*, 31(1), 1–12. doi:10.1016/j.tourman.2009.08.012
- Hjalager, A.-M., Kwiatkowski, G., & Østervig Larsen, M. (2018). Innovation gaps in Scandinavian rural tourism. *Scandinavian Journal of Hospitality and Tourism*, 18(1), 1–17. doi:10.1080/15022250.2017.1287002
- Hoarau, H. (2014). Knowledge acquisition and assimilation in tourism-innovation processes. *Scandinavian Journal of Hospitality and Tourism*, 14(2), 135–151. doi:10.1080/15022250.2014.887609
- Høegh-Guldberg, O., & Fuglsang, L. (2016). Innovasjonssamarbeid i reiselivsnæringen – en flernivåanalyse [Towards a multilevel framework of collaborative innovation in tourism]. In T. Arnesen, M. Lerfald, & E. Merok (Eds.), *Innovasjon i fragmenterte næringer* (pp. 19–47). Vallset: Oplandske Bokforlag.
- Hoelzl, B., Pechlaner, H., & Laesser, C. (2005). Imitation processes of SMEs – a special form of innovation? In P. Keller & T. Bieger (Eds.), *Innovation in tourism – creating customer value* (pp. 311–322). St. Gallen: ALEST.
- Jernsand, E. M., Kraff, H., & Mossberg, L. (2015). Tourism experience innovation through design. *Scandinavian Journal of Hospitality and Tourism*, 15(suppl. 1), 98–119. doi:10.1080/15022250.2015.1062269
- Jóhannesson, G. T. (2005). Tourism translations: Actor–network theory and tourism research. *Tourist Studies*, 5(2), 133–150. doi:10.1177/1468797605066924
- Jóhannesson, G. T. (2012). “To get things done”: A relational approach to entrepreneurship. *Scandinavian Journal of Hospitality and Tourism*, 12(2), 181–196. doi:10.1080/15022250.2012.695463
- Johnson, G., Melin, L., & Whittington, R. (2003). Micro strategy and strategizing: Towards an activity-based view. *Journal of Management Studies*, 40(1), 3–22. doi:10.1111/1467-6486.t01-2-00002
- Kinnunen, J. (1996). Gabriel Tarde as a founding father of innovation diffusion research. *Acta Sociologica*, 39(4), 431–442. doi:10.1177/000169939603900404
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education. Revised and expanded from “Case study research in education”*. San Francisco, CA: Jossey-Bass.
- Newell, S., Robertson, M., Scarbrough, H., & Swan, J. (2009). *Managing knowledge work and innovation* (2nd ed.). Basingstoke: Palgrave Macmillan.

- Nicolini, D., Gherardi, S., & Yanow, D. (2003). *Knowing in organizations: A practice-based approach*. New York, NY: ME Sharpe.
- Novelli, M., Schmitz, B., & Spencer, T. (2006). Networks, clusters and innovation in tourism: A UK experience. *Tourism Management*, 27(6), 1141–1152. doi:10.1016/j.tourman.2005.11.011
- Pantzar, M., & Shove, E. (2010). Understanding innovation in practice: A discussion of the production and re-production of Nordic walking. *Technology Analysis & Strategic Management*, 22(4), 447–461. doi:10.1080/09537321003714402
- Pavlovich, K. (2001). The twin landscapes of Waitomo: Tourism network and sustainability through the Landcare Group. *Journal of Sustainable Tourism*, 9(6), 491–504. doi:10.1080/09669580108667416
- Rantala, O., Valtonen, A., & Markuksela, V. (2011). Materializing tourist weather: Ethnography on weather-wise wilderness guiding practices. *Journal of Material Culture*, 16(3), 285–300. doi:10.1177/1359183511413646
- Reckwitz, A. (2002). Toward a theory of social practices. *European Journal of Social Theory*, 5(2), 243–263. doi:10.1177/13684310222225432
- Rogers, E. M. (1983). *Diffusion of innovations* (3rd ed.). New York, NY: Free Press.
- Schatzki, T. R. (2001). Practice minded orders. In T. R. Schatzki, K. Knorr-Cetina, & E. von Savigny (Eds.), *The practice turn in contemporary theory* (vol. 11) (pp. 50–63). London: Routledge.
- Smerecnik, K. R., & Andersen, P. A. (2011). The diffusion of environmental sustainability innovations in North American hotels and ski resorts. *Journal of Sustainable Tourism*, 19(2), 171–196. doi:10.1080/09669582.2010.517316
- Sørensen, F., & Fuglsang, L. (2014). Social network dynamics and innovation in small tourism companies. In M. McLeod & R. Vaughan (Eds.), *Knowledge networks and tourism* (pp. 28–45). London: Routledge.
- Sundbo, J., Orfila-Sintes, F., & Sørensen, F. (2007). The innovative behaviour of tourism firms – comparative studies of Denmark and Spain. *Research Policy*, 36(1), 88–106. doi:10.1016/j.respol.2006.08.004
- Sundbo, J., Sørensen, F., & Fuglsang, L. (2013). Innovation in the experience sector. In J. Sundbo & F. Sørensen (Eds.), *Handbook on the experience economy* (pp. 228–247). Cheltenham: Edward Elgar.
- Tarde, G. ([1903]1962). *The laws of imitation*. Clouchester, MA: Peter Smith by permission of Henry Holt.
- Taussig, M. T. (1993). *Mimesis and alterity: A particular history of the senses*. New York, NY: Routledge.
- Van Der Zee, E., & Vanneste, D. (2015). Tourism networks unravelled; a review of the literature on networks in tourism management studies. *Tourism Management Perspectives*, 15, 46–56. doi:10.1016/j.tmp.2015.03.006
- Warde, A. (2005). Consumption and theories of practice. *Journal of Consumer Culture*, 5(2), 131–153. doi:10.1177/1469540505053090
- Weidenfeld, A., Williams, A. M., & Butler, R. W. (2010). Knowledge transfer and innovation among attractions. *Annals of Tourism Research*, 37(3), 604–626. doi:10.1016/j.annals.2009.12.001
- Wenger, E. (2000). Communities of practice and social learning systems. *Organization*, 7(2), 225–246. doi:10.1177/135050840072002

Attachments

ATTACHMENTS

Attachment 1. Interview guide, companies

Interview guide 2013, companies

- I. A short introduction of myself and the purposes of the research
- II. Introduction: Could you introduce yourself, your role in the company, and shortly describe the company (its products, markets, customers, partners)
 1. Could you describe critical incidents (significant events, happening, situations) and the ways they were handled in your company over the last XX¹ years?
(The emphasis is on the episodes that were handled in collaboration with other companies/organizations). Who, what, why, how?
Was this cooperation separate/part of (SB/ON) network or other types of collaboration on local/regional/national/international levels?
 2. Can you (further) describe your experiences participating in SB/ON network? And how is it important for your company (enhanced/hampered innovativeness)? (Which activities, in cooperation with whom, how, why?)

Other issues: network activities on different structural levels (especially in relation to novel ideas, innovation projects, etc), engagement, common goals, knowledge sharing, challenges in collaboration.

- III. Round-up

¹ depending on when the company entered the network, usually few years before the network establishment (if joined when the network was established)

Attachment 2. Interview guide for companies (2016)

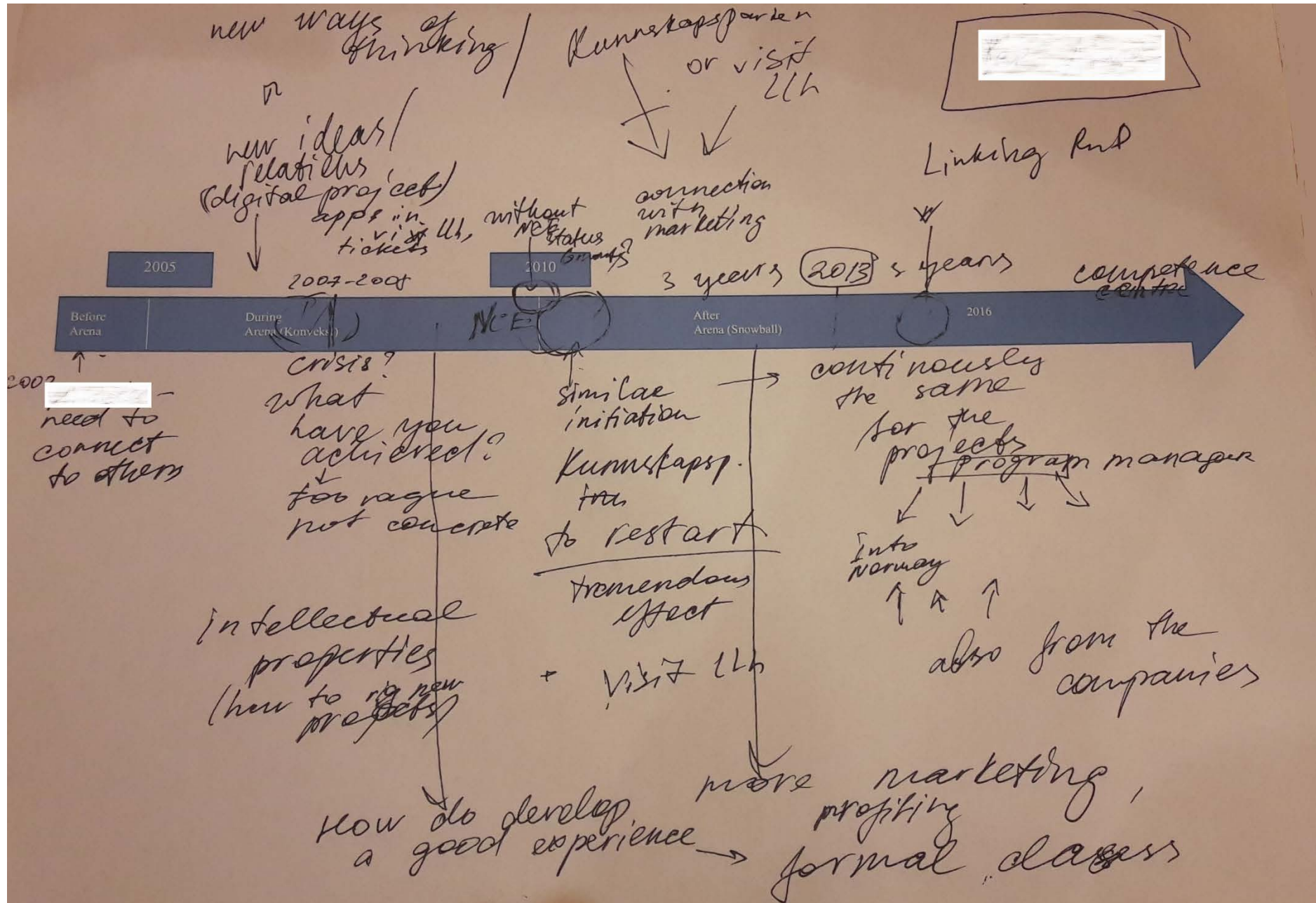
Introduction	Informant and organisation	<ol style="list-style-type: none"> 1. Could you introduce yourself, your background? 2. Short presentation of the organization/company; its products/services. 3. Provide a short description of the company's development from the establishment until now.
	Other network experience	<ol style="list-style-type: none"> 4. Has the company participated in other networks? Which? What are the experiences? 5. What are/were the objectives pursued when joining other networks?
Background for establishing the network (Arena)	<ol style="list-style-type: none"> 1. Why and when did you enter the Arena/(Snowball/xxx/xxx)? Who in the company participates in the network? 2. What happened before the network was established which had importance for its establishment? 3. Who came up with such idea? 4. Who was in charge of the application process? Who were the most (less) interested parties? 5. What was your role (company/person) in this phase? 	
(Arena) Network development, phases	<ol style="list-style-type: none"> 1. Could you describe the process of network establishment (who, what, when, where)? 2. What are the main drivers of the network's development? 3. How does it fit your intentions, goals and reasons to participate in the network? 4. Can you identify the phases of the networks development (other than application/reporting/funding periods). Please draw them on the timeline². 5. How did you engage in network in these different phases? 6. How, why and what are the most important factors at different phases? 7. Are there specific challenges which characterise the different phases of the networks development? 8. Have you experienced crisis/almost crisis at some point of network development? How can you characterize that phase (lack of engagement/immaturity/dominancy/management continuance)? Who/why/what? What did it lead to? 9. What effects/results has your company got participating in the Arena? Can some of them be linked to the phases above? 10. How has your contact with the network management/network administration been in different phases? 	
	Structure and strategy of the Arena	<ol style="list-style-type: none"> 11. How was the network organized during the Arena Programme? 12. What is the network strategy? 13. How do you (the network members) contribute to the fulfilment of the strategy/goals? 14. What are the requirements to the member-companies? <ol style="list-style-type: none"> 14.1. How has your company financed the participation in the network? 14.2. What types of resources has your company contributed to the network? 15. What type of resources has you company got access to through network participation?
	Arena's projects and other activities	<ol style="list-style-type: none"> 1. What kind of activities has your organisation taken part in? At the meetings, between the meetings. How, how often, describe. 2. What do you achieve participating in these activities/meetings? What effect do they have? 3. Other types of activities/projects/meetings in the network? Who decides on that?

² Such network timelines included mainly the dates of the beginning and ending of the Arena period and sometimes other important periods according to the network documentation to make sure that the informants provided their own interpretations of the network development over time. The timelines were sent to the informants prior to the interview and presented during the interview.

	Results of the Arena	<ol style="list-style-type: none"> 4. What are/were the main results of the Arena network? 5. What are/were the main challenges of the Arena network? 6. What are/were the main results of the Arena for your organisation? 7. What are/were the main challenges of the Arena for your organisation?
After finishing Arena	If Arena is still functioning	How do you perceive the exit strategies of Arena? (was that the only alternative?)
	If the Arena evolved into different type of network	See questions in the section above
	If the Arena is finished and no new network is formed	What are the main reasons for closing down the network?
Innovation (important) processes and results	<ol style="list-style-type: none"> 1. (Back to the phases identified in the development of network(s)) Could you describe these phases in regard to some concrete innovation/development which you have worked with as a company/few companies together? 2. What were the factors and processes which support (facilitate) or hamper innovativeness of the network and/or members? 3. What types of knowledge and learning is involved in the network activities? 4. Who brings new knowledge into the network/ whom do you learn the most from? What type of knowledge have you adopted from the network? How? can you describe how it happened? 5. Does the new knowledge (in its combinations) facilitate innovation in the network/company? 6. Given many various stakeholders in the network, is it easy to find understanding/common language at the network's meetings? How and why? 7. Have you established cooperation with other actors in the network (who/how/what type)? Has network given you access to actors outside the network? How and why? 8. How have you experienced the process of idea generation (network meetings, events)? <ol style="list-style-type: none"> 8.1. Have you brought any ideas to your network (alone/together with others)? How did you do that? Which companies/members took part? Who/what was the main driver behind the idea? Who helped? Where there any challenges? Status of the project today? 8.2. Have you brought any ideas from the network to your company? What types of ideas? Who/what was the main driver behind the idea? Who helped? Where there any challenges? Status of the project today? 9. Is there an innovation system in the region that the network is a part of/situated within, and its role for the networks development and results? 10. What do you do in order to involve other employees into the network and innovation processes? 11. What type of knowledge? 	
	Results in terms of outcomes	What are the new products/services that you've introduced in relations to you participation in the network?
	Results in terms of processes	Could you describe the process of development of one/two new innovations (products/services or other) that you've introduced in relations to you participation in the network?
	Board	<ol style="list-style-type: none"> 1. What types of organizations are presented in the board? 2. Does the board reflect the network membership (has proportional number of representatives of network members)? 3. Has your company participated in the board? If yes, roles and experiences? 4. If yes, what are the opportunities and challenges related with leading the network and innovation?

Institutional logic	<ul style="list-style-type: none"> - How did the experience-based focus enter the network? - Who/what are the main drivers behind the focus on the experiences? - How do network members sustain experience-based tourism in the area (what are the expectations from the companies/other organisations)? - How does the network enable these kind of practices/innovation?
Engagement, practicing	<ol style="list-style-type: none"> 1. Network vs daily life of the company (Do you find it easy to combine tasks and activities you have in the company/organisation with the network's meetings, events and activities? (doing things, connected to engagement) 2. Significance of ambitions (engagement) vs network ambitions for interaction and results? 3. There are different actors in the network (culture, nature, food, R&D, supporting organisations). How does the interaction part functions? What importance does it have for different actors?
Cooperation/learning between the networks	<ol style="list-style-type: none"> 1. Relations between Arenas, interactions between the networks 2. Is it possible to describe specific characteristics of the network (this type of collaboration) that would not be the case in different settings? (different cultures, religions, ??)
Gender	<ul style="list-style-type: none"> - Importance of the gender for your company (employees, management, customers, type of products, companies that you work with....) <p>For the network (including/excluding)</p> <ul style="list-style-type: none"> - What is the importance of gender for the innovation processes? Interactions with the same type of actors? - Importance of gender in relation to the choice of ideas that network is going to work with?
Sum up	<ol style="list-style-type: none"> 1. When you look back at the network development, what do you see as the most important? <ul style="list-style-type: none"> - Network results - The most important reasons (factors/processes) for positive (perhaps negative) results - The importance of the Arena Programme - The importance of other network programmes after the Arena 2. When you think about the future in relation to the network (region, if the network does not exist anymore), what do you see as the main opportunities and challenges for: <ul style="list-style-type: none"> - The network (region) - Tourism (culture) actors 3. Arena Programme can be 3+2 year, in addition to the preparation phases: <ul style="list-style-type: none"> - What do you see as the main important strengths and weaknesses of the programme? Suggestions for change? - Time span of the Programme, suggestions for change - After the Arena Programme: How do you perceive the possibilities and threats for network development? Suggestions for change? 4. Other issues that we have not come across or which you want to elaborate on networking and innovation? 5. Documents that can be made available to researchers?

Attachment 3. Timeline for the case INLAND with respective notes of one of the informants made during the interview



Attachment 4. An example of the first analytical table (the example is taken from the study of network orchestration over time, paper 3)

Phase	1	2	3	4	5	6
Duration	6 months to 2 years	1 to 2 years	1 to 2 years	1 to 2 years	Six months to 2 years	Still ongoing. 2 years when finished
USUS	Exploration	Network establishment	Network development through specialization and results	Maturation of network as a triple helix	Continued development and (preparation for) reorganizing	Development after reorganizing
<p>1. [redacted] (9 out of 10 coming back)</p> <p>Challenge: new members are always coming so it's a challenge for them to take care of us and the new ones. I would like to learn new things; I bother hearing about the old ones.</p> <p>Excellent management: Every time when I contact them they take me serious, and they are trying to help me</p>	<p>The initiators: University, Dyreparken, and Colorline maybe, and Visit Sørlandet (still key actors in 2016) the biggest, have money to do it and they have, generous)</p>		<p>Management: reactive to company's needs, requests</p> <p>Activities: Conference, KPI all the time, CRM (facilitates innovation knowing the customers and their needs)</p>	<p>2015 application for NCE. Mutual help, network assists the companies and "you have something and you give something". (it is a good way of thinking and we all be a big family because we know each other)</p> <p>Activities: Conference, KPI, Mathok</p>	<p>2016 All company employees are involved in different activities in the network (learning). I work with food, Lise is doing the CRM. I am doing the KPI. And, and the chef is meeting other chefs, because we make happenings for them as well. So, so I think that USUS is so big and wide so</p>	<p>Opportunities and challenges: being too big>remember personal relations!, need to stick together because the world does not know who we are</p>
<p>3. [redacted] (coincidence of events prior to establishment)</p> <p>Process here in southern Norway looking on what is the future role of a DMO and how should we organize everything. Intention of consolidation of marketing orgs by Vest-Agder and Aust-Agder counties.</p>	<p>hired April-Feb 2010 to start up the company from scratch. At the same time, approached by Kirsti Mathisen Hjemdal and Reidar Fuglestad (waiting for Visit Sørlandet to come in place)</p> <p>H. wanted to contribute with social media. Her work was to work out a vision for VS< the same vision as</p>	<p>2010 started up, only 15 businesses formed the platform, together decided, this is what it is going to be all about (!!)</p> <p>VS role = the digital approach for USUS. VS not so much a marketing organization, but an organization helping the industry to perform better</p>	<p>2011 opening for new businesses to join (had to apply to be members, not everyone could join, what can I offer the other businesses in the cluster, 100 man-hours per year) (!!)</p> <p>2012 USUS sheltered by VS from the change troubles (a success factor that USUS should be for the businesses</p>	<p>2013 big expansion, close to 100.>key accounts (4 freelance advisors)>need to follow up 2ce a year between the conferences (attend/why not/not useful)>need to adjust cluster themes; control the engagement,</p>	<p>before Xmas 2015 seriously X. strategy: 2015 the board of VS and the board in USUS: what is the story going to be after Oct 2015?> big process, engaged external resources from NHO> mutual assessment>USUS is a success></p>	<p>Innovation results: most of the businesses, when they do innovation they don't really recognize it as innovation. Digital toolbox, dig. accelerator test. No big innov.projects>b.t</p>
<p>Co-project manager> 50% of time the manager of VS working on USUS matters (joint admin.in the begin/g)</p> <p>Accepted businesses once a year.</p> <p>Admin costs: tried to keep</p>	<p>USUS> turning point: June VS went for a new strategy, and the same month USUS as Arena.</p> <p>VS is formal contract partner for USUS (USUS as a tool to change the way the DMO was working)</p>	<p>From 2010 start talking about the exit-strategy (meant to be VS)</p>	<p>only and we wanted to keep the organizations with different agendas out of it.)</p> <p>H was a little bit in the background, still 50%. Responsible for the basic knowledge for new businesses that the joined</p>	<p>additional small workshops who can't attend conf etc.) (additional funding for that reason)</p> <p>2013 got 2 extra years. Need for resources working on</p>	<p>recommendation to the board of VS the future organization on southern Norway should be based on the platform that has been developed in USUS (going from VS being the project</p>	<p>himself develop, apply for funding, etc. Innov. methodology on how to collaborate in tourism>USUS New ideas: It is</p>

Attachment 5. An example of the second types of working tables (from the study of orchestration over time)

Phases/roles	Exploration 2008-2009	Network establishment 2010-2011	Network development through specialization and results 2012-2013	Maturation of network as a triple helix 2014-2015	Continued development and (preparation for) reorganizing 2015-2016	Development after reorganizing 2016-
1. Knowledge broker		-to be aware that main driver for the companies is building big network (conf, projects), learning from each other, sharing -to be aware that comp are concerned about risks of sharing internal issues	-involving company employees at different levels in the networks diverse activities -Imp that comp leaders (participants) disseminate new knowledge to their employees	-Communicate the research results		
2. Innovation broker	-Connect dif subsector (culture+tourism) to bring novelty (culture>novelty as totally dif world with econ concerns)	-Establish innovation culture incl. define what innovation and dev-t are and involving RnD (1. for the industry and single businesses and 2. the way cluster works, methods, internationalization) -For NL and FL totally essential to continuously acquire competence (tools, thinking, meetings with ...)	-Find dif funding opportunities and combinations	-Help to recognize innovation		
3. N. entrepreneur	-Imp to form 'right' structure/place network platform in the 'right' organization -Often need to invest own time	- Secure involvement from the beginning by conscious decision to join the cluster by meeting businesses, figuring what their needs are and how they can contribute (to sift those with other agendas) - Practical distribution of responsibilities in the network leadership	-Imp that leading comp are generous (sharing knowledge, comp) -Imp that cluster is imp for all members - Assisting companies with the ideas coming bottom ...	-to take care of both old members and new-comers (also small/big), mbt competence building etc -when growing bigger, requires more financial resources -To secure proper organization (bedriftskontaktene) in order to meet needs of the	Imp to have plan B if not NCE Imp to form 'right' structure/place network platform in the 'right' organization	

Attachment 5A. An example of a sum-up of the second types of working tables (from the study of orchestration over time, paper 3)

Case: Core factors/ Phase	L-1 Knowledge broker	L-2 Innovation broker	L-3 Network entrepreneur	L-4 Network leader	A-1 Vision-based leadership	A-2 Task- oriented leadership	A-3 Relation- based leadership	Other roles/ comments	Manage- ment, Stable
1			X	x	x				X
2	X		X	X	X	X	X		X
3	X	X				X	X		X
4	X	X	X			X	X	Key account	X
5			X	X	X				X
6	X			X	X				x

The main pattern in this case is:

CR= Crossroad (move CR to the right place in your case)
 L= Leadership roles from Nilsen and Gausdal (2017)
 A= Recommended leadership focus from Arena

Complementary comments:

Attachment 6. Distribution of responsibilities among the members of the research team in work on the second empirical study (Paper 2)

Tasks/researchers	Høegh-Guldberg (OHG)	Eide (DE)	Trengereid (VT)	Mathiesen Hjemdahl (KMH)
Development of the idea	Work on the dynamics of network development was initially planned as the main part of the PhD project. The article further builds on the theoretical streams explored in article 1	The idea to study 7 networks and create a team, starting with an article on dynamic network development to be submitted to the special issue of SJHT.	Inspiration by the Innovation Journey of Van De Ven et al. (1999)	
Literature review	Main responsible of the organizational change literature and Pettigrew and Antonacopoulou in the process, practice streams.	Main responsible for the process- and practice-based literature, and general on innovation.	Main responsible for the Innovation Journey, and helping in general on innovation	
Data collection (seven networks)	Responsible for 2 cases INLAND and USUS	Responsible for 2 cases INNOVA and WINTER	Responsible for 2 cases FJORD and MOUNTAIN	Responsible for 1 case FINNMARK
Data analysis	Responsible for 2 cases INLAND and USUS	Responsible for 2 cases INNOVA and WINTER. Making the overall approach on tools and how to do it	Responsible for 2 cases FJORD and MOUNTAIN	Responsible for 1 case FINNMARK
Development of the categories/subcategories.	The framework confirmed/changed according to OHG's cases	Main responsible for the first drafts of the framework (categories/subcategories) based on 1 case, later used and adjusted in the other	The framework confirmed/changed according to VT's cases	The framework confirmed/changed according to KMH's case
Development of the research claim	Main responsible	Active participation in the development	Active participation in the development	
Writing abstract and introduction	Main responsible	Second main		
Writing the theoretical chapter	Main responsible, drafting the first and the third (out of three) parts of the chapter and connecting all the parts	Main responsible for drafting the second (PBL and process) subsection	Active participation and exchange of ideas when drafting of the third (Journey) part of the theory chapter	
Writing the methods chapter	Minor adjustments	Main responsible	Minor adjustments	Second main by doing initial feedback on the first draft and adding details about the Arena/NCE Programmes
Writing the findings chapter based on the developed categories/subcategories	Main responsible, drafting the larger whole version based on the cross-analysis tables + details on	Second main responsible on the larger whole version. Writing and	Writing and checking correctness in relation to VT's cases	Writing and checking correctness in relation to KMH's case

	own cases + making the main journey figure	checking correctness in relation to DE's cases		
Writing the discussion chapter	Main responsible	Feedback and second main responsible in writing texts.	Feedback and editing.	Feedback and editing.
Writing the conclusion chapter	Main responsible	Feedback and second main responsible in writing texts.	Writing on the management implications +, feedback and editing on all	Feedback and editing.
Editing the last versions	Main responsible	Main responsible for the methods chapter, second main responsible on the larger whole version	Helping.	Working with the later versions of the article and checking for repetitions, inconsistencies of the whole draft

Attachment 6A. Distribution of responsibilities among the members of the research team in work on the second empirical study (Paper 3)

Tasks/researchers	DE	VT	OHG	KMH
Development of the idea	The idea is developed during work on the PhD proposal by VT supervised by DE. VT further develops the focus on the network orchestration rather than management			
Literature review		Main responsible		
Data collection (seven networks as in Paper 2)	Responsible for 2 cases	Responsible for 2 cases	Responsible for 2 cases	Responsible for 1 case
Data analysis	Responsible for 2 cases	Responsible for 2 cases	Responsible for 2 cases	Responsible for 1 case
Development of the categories/subcategories.	Main responsible for the first drafts of the framework (categories/subcategories) based on 1 case. Later used and adjusted in the other cases.	The framework confirmed/changed according to VT's cases	The framework confirmed/changed according to OHG's cases	The framework confirmed/changed according to KMH's case
Development of the research claim	Main responsible	Active participation in the development		
Writing abstract and introduction	Second main	Main responsible		
Writing the theoretical chapter	Second main	Main responsible	Filling in some parts, ongoing feedback during the writing process	
Writing the methods chapter	Main responsible	Second main		Initial feedback on the first draft
Writing the findings chapter based on the developed categories/subcategories	Main responsible, drafting the larger whole version based on the cross-analysis tables + details on own cases.	Second main; writing and checking correctness in relation to VT's cases	Writing and checking correctness in relation to OHG's cases	Writing and checking correctness in relation to KMH's cases
Writing the discussion chapter	Main responsible drafting the larger whole version	Second main, filling in parts, especially in comparison with the theoretical framework		
Writing the conclusion chapter	Both responsible			
Editing the last versions	Main responsible for the methods chapter, second main responsible on the larger whole version	Main responsible (except on method)	Helping, ongoing feedback	Working with the later versions of the article and checking for repetitions, inconsistencies of the whole draft

Doctoral dissertation submitted for the degree of Philosophiae Doctor (PhD) to the PhD programme Innovation in Services in the Public and Private Sectors at Inland Norway University of Applied Sciences

Dynamics of innovation network practices in tourism

This thesis explores the development of innovation networks over time, how such networks are managed and how network innovation is enacted by network members. The overall purpose is to increase knowledge of the dynamics of innovation networks by applying a practice-based perspective.

The thesis argues that our understanding of the development of innovation networks over time can be increased by studying the complex social and dynamic network practices that are embedded in a particular time and context and created by members' practices. From the interference of various types of network members' practices, firms reap new ideas, knowledge and/or resources that can be integrated into ongoing practices.

The appended papers present conceptual models that address various aspects of the development of innovation networks over time by looking at their practices. Inspired by previous innovation research, the metaphor of a journey sheds light on both planned and emergent processes in networks' development. The metaphor of orchestration explores when and why various management roles are needed to handle bottom-up, often non-linear iterative innovation processes given the complexity and multiplicity of innovation network practices. The metaphor of a mirror reflects the fact that networks' development depends on the implementation of network innovation in the practices of network members, which can be accomplished in a variety of ways. The formative, directional, long-term and dynamic process of integrating network innovation into the ongoing practices of network members must be balanced in order to preserve the core organizational practices that create value for tourists.



Olga Høegh-Guldberg
was born in 1987.



ISSN 1893-8337
ISBN 978-82-7184-418-9